



INFORMATION AND COMMUNICATION TECHNOLOGIES FOR WOMEN ENTREPRENEURS

**Prospects and Potential in Azerbaijan, Kazakhstan,
the Kyrgyz Republic, and Uzbekistan**

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Abbreviations and Currency Equivalents

ADB	-	Asian Development Bank
BDS	-	business development support
CAREC	-	Central Asia Regional Economic Cooperation
DAMU	-	DAMU Entrepreneurship Development Fund
DMC	-	developing member country
ICT	-	information and communication technology
ICT4WED	-	information and communication technologies for women's entrepreneurship development
ILO	-	International Labour Organization
ITU	-	International Telecommunication Union
KCBTA	-	Kyrgyz Community-Based Tourism Association
MoCIT	-	Ministry of Communication and Information Technologies
MSME	-	micro, small, and medium-sized enterprise
NGO	-	nongovernment organization
UNCTAD	-	United Nations Conference on Trade and Development
WCU	-	Women's Committee of Uzbekistan
WED	-	women's entrepreneurship development

CURRENCY EQUIVALENTS

(As of 1 September 2014)

Currency Unit	-	Azerbaijan manat (AZN)
AZN1.00	=	\$1.27486
\$1.00	=	AZN0.78440
Currency Unit	-	Kazakhstan tenge (T)
T 1.00	=	\$0.00550
\$1.00	=	T181.90019
Currency Unit	-	Kyrgyz Republic som (Som)
Som1.00	=	\$0.01889
\$1.00	=	Som52.94260
Currency Unit	-	Uzbekistan sum (SUM)
SUM1.00	=	\$0.00043
\$1.00	=	SUM2,348.02414

Foreword

Economic opportunities and the role of entrepreneurship in Central and West Asian developing member countries (DMCs) changed significantly following the transition to market economies in the 1990s. Entrepreneurship took a more prominent role in fostering economic development and social inclusion, creating jobs, and allowing wealth accumulation. Sustainable development requires economic participation of both men and women. In several Central and West Asian DMCs, however, women's entrepreneurial potential remains underutilized. Women are less likely to become entrepreneurs and their businesses are more likely to be informal, stay small, generate less revenue, and employ fewer staff.¹ Their participation is well below their presence in the labor market or their educational qualifications.

There is ample evidence about the potential of information and communication technologies (ICTs) such as mobile phones, computers, and the internet to support economic growth. ICT use by micro and small enterprises has led to improvements not only in business performance but also in living conditions.² Women lag behind men in access to technology and use ICT differently. Some studies have looked at the gender divide, either globally or regionally.³ However, there is a knowledge gap in relation to the situation of Central and West Asian DMCs, and so this report was commissioned to focus on the potential of ICT to catalyze women's entrepreneurship in that region.

Within the portfolio of the Central and West Asia Department of the Asian Development Bank (ADB), ICT can be included as a component of public sector management, finance, private sector development, education, social protection, infrastructure (i.e., transport, water, energy, etc.), and agriculture interventions to leverage greater benefits for women. It would thus be useful to gain a better understanding of gender differences in access and use, and of how these tools could be best used to promote women's entrepreneurship and enhance economic activity. ICT is a fast-changing area that can provide new opportunities to catalyze women's economic development.

In 2013, ADB's regional technical assistance project, Promoting Gender-Inclusive Growth in Central and West Asia Developing Member Countries, undertook a research study to explore the potential of ICTs in fostering women's businesses in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. This publication draws from that research.

¹ S. Sabarwal and K. Terrell. 2008. *Does Gender Matter for Firm Performance? Evidence from Eastern Europe and Central Asia*. World Bank.

² United Nations Conference on Trade and Development (UNCTAD). 2010. *Information Economy Report 2010: ICTs, Enterprises and Poverty Reduction*. New York and Geneva.

³ K. Gill, K. Brooks, J. McDougal, P. Patel, and K. Aslihan. *Bridging the Gender Divide: How Technology Can Advance Women Economically*. International Center for Research on Women (ICRW). New Delhi; UNCTAD. 2011. *Information Economy Report 2011: ICTs as an Enabler for Private Sector Development*. New York and Geneva; A. Gillwald, A. Milek, and C. Stork. 2010. *Gender Assessment of ICT Access and Usage in Africa*. 2010 Policy Paper No. 5(1). researchICTAfrica.net.

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The analysis is drawn from a report written by Thao Nguyen (international consultant), with inputs from Inmaculada Martinez (ADB private sector development specialist), who was instrumental in reviewing the final draft of this work.

A team of coordinators and researchers provided invaluable in-country support during the data-gathering and validation stages of this research: Ketevan Chkheidze (RETA GAD specialist and implementation consultant) and Tarana Jafarova (national consultant) in Azerbaijan; Manshuk Nurseitova (economics officer, ADB Kazakhstan Resident Mission) and Zaure Adilova (national consultant) in Kazakhstan; Gulfia Abdullaeva (RETA GAD specialist and implementation consultant) and Elena Chibigaeva (national consultant) in the Kyrgyz Republic; and Mekhri Khudayberdiyeva (senior social development officer, ADB Uzbekistan Resident Mission) and Azizbay Mambetkarimov (national consultant) in Uzbekistan. ADB is also grateful to the nongovernment organizations and women's community associations who participated in the key informant interviews and public consultations that greatly informed this research.

Jennifer Verlini edited this report. Muriel Ordoñez and the publishing team, and administrative support staff, including Leah Luna, provided invaluable support.

Executive Summary

Women’s entrepreneurship development (WED) is an important strategy for increasing gross domestic product, creating jobs, and narrowing the gender gap in a country. However, statistical data show that women entrepreneurs in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan are not reaching their full potential. The majority of women entrepreneurs in these countries own micro or small businesses in low-income, low-growth sectors. Even in Kazakhstan, which has the highest gender equality rating of the four countries, women still lag behind men in management positions in business, representation in legislative and executive bodies, labor force participation, and access to jobs.

Information and communication technologies—mobile phones, the internet, and computers—play an important role in accelerating business growth

Information and communication technologies (ICTs), in particular mobile phones, the internet, and computers, play an important role in accelerating business growth. ICTs are particularly suitable to help overcome constraints that are unique to women entrepreneurs, or that affect them to a greater extent than men, including limited access to skills training; limited time (double time burden of family duties and business); mobility restrictions; limited access to information, markets, and finance; and attitudinal and cultural barriers such as perceptions of the role of women and entrepreneurship. The governments of Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan appear to recognize the importance of ICTs for business and some are making significant investments in projects that improve ICT infrastructure.

This study uses the assessment framework and guide of the International Labour Organization (ILO)/United Nations Conference on Trade and Development (UNCTAD) ICTs for Women’s Entrepreneurship Development (ICT4WED)⁴ to assess the extent to which the countries’ environments are conducive to leveraging ICTs for WED, identify gaps in the environment, highlight the unmet needs of women entrepreneurs, and make evidence-based recommendations to address these gaps. The assessment followed the six conditions of the ILO/UNCTAD ICT4WED framework and guide:

- (i) gender-sensitive legal and regulatory environment that favors the economic empowerment of women;
- (ii) effective WED policy, leadership, and coordination;
- (iii) access to gender-sensitive financial services;
- (iv) access to gender-sensitive business development support (BDS);
- (v) access to markets, and access, ownership, and use of technology; and
- (vi) representation of women entrepreneurs and participation in policy dialogue.

⁴ For more information on this methodology, see: United Nations Conference on Trade and Development (UNCTAD). 2014. Empowering Women Entrepreneurs through Information and Communication Technologies: A Practical Guide. *UNCTAD Current Studies on Science, Technology and Innovation*. No. 9. New York and Geneva. http://unctad.org/en/PublicationsLibrary/dt1stict2013d2_en.pdf

The assessment was conducted over 6 months, between June and December 2013, with fieldwork undertaken in each of the four countries. Data were collected through a systematic review of relevant existing data and reports, 57 interviews with 115 key informants, 24 focus groups with 207 women entrepreneurs, and 60–80-minute surveys with 422 women entrepreneurs. The data were used to generate evidence-based recommendations for effective policies that meet the needs of women entrepreneurs.⁵

Findings show that in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan, ICTs are seldom leveraged in ways that would fully enable women to start and grow businesses. Furthermore, women entrepreneurs only use ICTs for their businesses to a limited extent, and risk missing out on the opportunities presented by the technology. Four key factors seem to be holding them back. First, an enabling environment for ICTs for WED is lacking. Second, women entrepreneurs, especially those in rural and peri-urban areas, often lack access to, and ownership of the ICT tools, or connectivity to them. Third, even in cases where women own the devices and have good connectivity, they are often unable to use them fully for their businesses because they lack skills and are not aware of the technology's full capabilities. Fourth, and most importantly, there is a gap between women entrepreneurs in urban areas and those in peri-urban and rural areas in terms of access, ownership, and use of ICTs. Finally, in the case of Azerbaijan, cultural barriers are also another constraining factor.

In Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan, women entrepreneurs are missing out on the opportunities presented by information and communication technologies

This study is the first of its kind to provide data on women's access to, and use and ownership of ICTs in urban, peri-urban, and rural areas. The study also explores women's access to ICT-related support, their preferences for support, and their willingness and ability to pay for the supporting services. It is worth noting that survey results across the four countries show women's low awareness of and confidence in the different ways that ICTs could be used for their businesses. However, results also show their great willingness and interest to learn how to use ICTs for businesses. Interest in the type of ICTs (internet, computers, mobile phones) varies depending on women entrepreneurs' access, ownership, and usage.

Recommendations derived from the data include cross-country actions that address the common gaps identified in the four countries, as well as additional country-specific recommendations.

Cross-Country Recommendations

- Developing campaigns to raise awareness of new ICT-enabled business opportunities for women entrepreneurs
- Enabling women entrepreneurs to use e-commerce to start and grow businesses, especially in industries with growth potential such as ICT or tourism

⁵ See Appendix 1 for the list of organizations approached for key informant interviews in each of the four countries. Appendix 2 contains information about the location of the focus groups in urban, rural, and peri-urban areas in each country. Appendix 3 is a sample of the questionnaire used in all four countries during the study. Further unpublished raw data from this consultation phase are in T. Nguyen. Matrix for Mapping of Stakeholders by Theme for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan; T. Nguyen. Detailed Analysis of Findings From the Women Entrepreneurs Survey; T. Nguyen. Focus Group Summary for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. All data in this report are derived from the above sources.

- Creating ICT-enabled mentoring programs for women entrepreneurs to grow successful businesses
- Establishing SMS-based information alert services for women entrepreneurs
- Creating loan programs for women entrepreneurs to enable them to set up businesses in the ICT service industry and online business (e.g., women-only internet clubs, internet marketing, ICT training services, ICT support services), or to invest in ICT-related equipment
- Providing ICT capacity-building skills and support for women entrepreneurs to effectively use ICTs in their business and start ICT-related service businesses
- Maximizing ICTs specifically for BDS in conjunction with access to finance initiatives for women entrepreneurs
- Creating WED focal points in government, women entrepreneur associations, and nongovernment organizations that work with women entrepreneurs so that they can leverage ICTs to increase effectiveness
- Leveraging ICTs to enable access to gender-sensitive financial services and alternative access to finance especially for women in rural and peri-urban areas
- Improving infrastructure through, for example, affordable broadband with 100% coverage, electronic payment systems, and mobile money

Additional Country-Specific Recommendations

1. Azerbaijan

- Implementing campaigns to address the attitudinal barriers to women's internet usage in rural areas
- Leveraging ICTs to enable a gender-sensitive legal and regulatory environment that favors the economic empowerment of women
- Leveraging ICTs to enable access to gender-sensitive BDS and deliver flexible BDS for women entrepreneurs
- Leveraging ICTs to enable women entrepreneurs' access to supply chains

2. Kazakhstan

- Promoting e-government services and e-licensing services to women entrepreneurs
- Creating a one-stop-shop website with information and resources for women entrepreneurs

3. Kyrgyz Republic

- Leveraging ICTs to enable a gender-sensitive legal and regulatory environment that favors the economic empowerment of women

- Creating a one-stop-shop website for women entrepreneurs
- Leveraging ICTs to enable access to gender-sensitive BDS and deliver flexible BDS for women entrepreneurs
- Enabling women entrepreneurs' access to markets, including the export market

4. Uzbekistan

- Leveraging ICTs to enable a gender-sensitive legal and regulatory environment that favors the economic empowerment of women
- Enabling effective WED policy, leadership, and coordination through ICT leveraging
- Promoting access to gender-sensitive financial services and alternative access to finance through ICT use
- Enabling access to gender-sensitive BDS and delivering flexible BDS to women entrepreneurs
- Providing access to markets, including the export market, through leveraging ICTs

Introduction

Background

Women's entrepreneurship development (WED) is recognized by international organizations and governments worldwide as an important strategy for creating jobs, developing the economy, reducing gender inequality, and contributing to family well-being.⁶

Women entrepreneurs in developing countries, however, tend to have small or micro enterprises; be overrepresented in low-income, low-growth sectors; and constrained by barriers that are either unique to women entrepreneurs or affect them to a greater degree than their male counterparts. These barriers include limited access to skills training; limited time (the dual burden of balancing family duties and business); mobility restrictions; limited access to information, markets, and finance; and attitudinal and cultural barriers such as perceptions of the role of women and entrepreneurship.⁷

Information and communication technologies (ICTs), especially mobile phones, computers, and the internet have become essential tools for business operation and competitiveness. The increased accessibility and affordability of ICT, together with innovations, and the dramatic increase in adoption rates of mobile phones, even in rural populations, present extraordinary opportunities for all entrepreneurs, regardless of gender, to start and grow businesses. The International Telecommunication Union (ITU) estimated that the price of ICT services dropped by 30% globally between 2008 and 2011, with the biggest decrease in fixed broadband internet services, where average prices have come down by 75%. They also state that mobile broadband internet subscriptions rose to 1.1 billion in 2011 and doubled to 2.1 billion by the end of 2013, with more than three quarters of the growth in developing countries. Phone subscriptions are also increasing, with an estimated 6.8 billion subscriptions worldwide by the end of 2013—a figure almost as large as the world's entire population.⁸

Accessible and affordable information and communication technologies—including mobile phones—present extraordinary business opportunities for entrepreneurs, regardless of their gender or the location of their businesses

⁶ For evidence relating to job creation, economic development, and the reduction of gender inequality, see: Conference of Organisation of Economic Co-operation and Development (OECD). *Women Entrepreneurs in SMEs: A Major Force in Innovation and Job Creation*. Paris. 16–18 April 1997; Second Conference of OECD. *Women Entrepreneurs in SMEs: Realising the Benefits of Globalisation and the Knowledge-Based Economy*. Paris. 29–30 November 2000. For evidence relating to the role of WED in family well-being, see: P. Kantor. 2001. *Promoting Women's Entrepreneurship Development Based on Good Practice Programs: Some Experiences from the North to the South*. *InFocus Programme on Boosting Employment through Small Enterprise Development*. Job Creation and Enterprise Department. Geneva. International Labour Organization (ILO).

⁷ United Nations Conference on Trade and Development (UNCTAD). 2011. *Information Economy Report 2011: ICTs as an Enabler for Private Sector Development, 2011*. Geneva. http://unctad.org/en/PublicationsLibrary/ier2011_en.pdf

⁸ ITU. 2013. *ICT Facts and Figures*. Geneva. Available at: <http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>

There are 200 million fewer women internet users than men worldwide and women are 21% less likely to own a mobile phone than men

Statistics show that women are lagging behind in their access to, and usage and ownership of ICTs, especially for business activities, which puts them at risk of missing out on the ICT revolution. In 2013, the ITU and UNESCO reported 200 million fewer women internet users than men worldwide—a rapidly widening gap in the developing world. Women worldwide are also 21% less likely to own a mobile phone than men.⁹

Objectives and Methodology of the Study

This study aimed to

- assess the current environment for ICTs for WED in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan;
- explore the potential for leveraging ICT to support women’s entrepreneurship;
- better understand women entrepreneurs’ access to and usage and ownership of ICT, and explore their support needs and preferences (highlighting urban, peri-urban, and rural differences); and
- recommend ways to leverage appropriate ICT tools for WED.

To meet the objectives of the study, the framework and guide of the International Labour Organization (ILO)/United Nations Conference on Trade and Development (UNCTAD) ICTs for WED were used.¹⁰ This methodology allows practitioners, specialists, and policy makers to systematically assess the current status of gaps in and opportunities for leveraging ICTs so that an improved environment, conducive to women’s entrepreneurship, may develop in a country. This improved environment might include leveraging ICTs to stimulate greater participation in existing business development support (BDS) services and financing programs by women; improving women entrepreneurs’ access to and use and ownership of ICTs; increasing women entrepreneurs’ participation in mainstream business networks and public–private policy dialogue; and strengthening the capacity of businesswomen and entrepreneurs’ associations, and their innovative use of technology for WED.

The assessment framework contains six conditions for assessing the extent to which ICTs are being leveraged effectively for WED:

- (i) a gender-sensitive legal and regulatory environment that favors the economic empowerment of women;
- (ii) effective WED policy, leadership, and coordination;
- (iii) access to gender-sensitive financial services;
- (iv) access to gender-sensitive BDS;
- (v) access to markets, and access, ownership, and use of technology; and
- (vi) women entrepreneurs’ representation and participation in policy dialogue.

⁹ ITU and United Nations Educational, Scientific and Cultural Organization (UNESCO). 2013. *Doubling Digital Opportunities: Enhancing the Inclusion of Women and Girls in the Information Society, A Report by the Broadband Commission Working Group on Broadband and Gender*. Geneva. <http://www.broadbandcommission.org/Documents/working-groups/bb-doubling-digital-2013.pdf>

¹⁰ United Nations Conference on Trade and Development. 2014. *Empowering Women Entrepreneurs through Information and Communication Technologies: A Practical Guide. UNCTAD Current Studies on Science, Technology and Innovation*. No. 9. New York and Geneva. http://unctad.org/en/PublicationsLibrary/dtstict2013d2_en.pdf

The study was conducted over 6 months, between June and December 2013, and involved fieldwork in the four target countries: Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. Because of the lack of sex-disaggregated data on women entrepreneurs' ICT access, usage, and ownership in rural areas, the study gathered quantitative and qualitative in-depth data on the needs of women entrepreneurs in urban, peri-urban, and rural areas. In addition to a systematic review of relevant literature and data from international organizations, and from each country's statistical office, the study gathered primary data through key informant interviews with relevant stakeholders to WED and ICTs, focus group discussions with women entrepreneurs, and 60–80-minute surveys with women entrepreneurs in the four countries.¹¹

Key informants were identified through a stakeholder and initiative mapping process, which included individuals from government, quasi-government, nongovernment organizations, and the private sector. Between 3 June and 23 July 2013, 57 interviews were conducted with 115 key informants in all four countries. Six focus group discussions per country (two urban, two peri-urban, and two rural) were conducted with 207 women entrepreneurs in nine urban, peri-urban, and rural locations. Following on from this, 60–80-minute surveys were conducted with 422 women from urban, peri-urban, and rural areas in the four countries between 1 August and 3 September 2013. The surveys used a structured questionnaire containing 77 multiple choice and open-ended questions based on the ILO/UNCTAD ICT4WED methodology and consistent with the ITU's household survey indicators,¹² and incorporating questions that explored themes emerging from the focus groups and key informant interviews.

The findings and recommendations from the study will be presented to relevant stakeholders for consideration in their policy and programming, and to the Asian Development Bank for its work in leveraging ICTs to support women entrepreneurs.

¹¹ See Appendix 1 for the list of organizations approached for key informant interviews. Appendix 2 contains information on the location of the focus groups in urban, rural, and peri-urban areas in the four countries. Appendix 3 is a sample of the questionnaire used in all four countries during the study. Further unpublished raw data from this consultation phase are in T. Nguyen. Matrix for Mapping of Stakeholders by Theme for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan; T. Nguyen. Detailed Analysis of Findings from the Women Entrepreneurs Survey; T. Nguyen. Focus Group Summary for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. All data in this report are derived from the above sources.

¹² ITU. 2014. *Manual for Measuring ICT Access and Use by Households and Individuals 2014 Edition*. Geneva. http://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-ITCMEAS-2014-PDF-E.pdf

Women Entrepreneurs in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan

Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan share many common characteristics, although there are significant differences between the four countries. Table 1 shows all have high adult literacy rates of 99%–100%. Azerbaijan and Kazakhstan are upper-middle-income economies, while Uzbekistan is in the lower-middle-income bracket, and the Kyrgyz Republic is considered to be a low-income country.¹³ In gender equality, however, Azerbaijan ranks low at 99th out of 135 countries in the World Economic Forum’s Global Gender Gap Index for 2012,¹⁴ while Kazakhstan ranked 31st and came 5th within the group of upper-middle-income countries. In the same year, the Kyrgyz Republic ranked 54th. Uzbekistan, not ranked in 2012, came in 58th in 2009.¹⁵

Across the countries being studied, women trailed behind men in economic empowerment indicators such as business bank account ownership, labor force participation rates, and savings at a financial institution

Limited gender-disaggregated statistical data were available for monitoring and evaluating women entrepreneurs’ contribution in the economic development of the countries. Table 2 shows that across the countries being studied, women trailed behind men in important economic empowerment indicators such as business bank account ownership, labor force participation rates, and savings at a financial institution. The gap in business bank account ownership between men and women was most stark in Uzbekistan, although in all four countries, the rate of bank account use among men in business was greater than among women. Female labor force participation was highest in Kazakhstan, with nearly three-quarters of the female population of 15–64 years old employed. Uzbekistan lagged with only a little over half of its female work population employed. However, even in Kazakhstan, the female labor force participation rate was lower than that of men. Finally, in three of the four countries, with the Kyrgyz Republic being the exception, women had fewer savings with financial institutions than men.

Although women make up more than 51% of Azerbaijan’s population and their educational level is high, women’s share in overall entrepreneurship is relatively low. Although there are no official statistics, October 2013 figures from the Azerbaijan Statistics Committee indicated that women constituted only 17.6% of entrepreneurs

¹³ Asian Development Bank (ADB). Azerbaijan. <http://www.adb.org/countries/azerbaijan/main>; ADB. Kazakhstan. <http://www.adb.org/countries/kazakhstan/main>; ADB. Kyrgyz Republic. <http://www.adb.org/countries/kyrgyz-republic/main>; ADB. Uzbekistan. <http://www.adb.org/countries/uzbekistan/main>; World Economic Forum. 2013. *The Global Gender Gap Report 2013*. Geneva; International Telecommunication Union. 2013. World Telecommunication/ICT Indicators Database. Geneva.

¹⁴ World Economic Forum. 2013. *The Global Gender Gap Report 2013*. Geneva.

¹⁵ The actual scores were as follows: Azerbaijan scored 0.655 in 2012; Kazakhstan scored 0.721; the Kyrgyz Republic scored 0.701. Uzbekistan scored 0.691 in 2009.

Table 1 Characteristics of Participating Countries
(2011 data unless otherwise indicated)

Country	Population (million)	Area (km ²)	Rural (%)	Per capita GNI, Atlas Method (\$)	GDP Growth, 2000–2005 and 2005–2011 (average annual %)	Adult Literacy Rate (% ages 15 and older)	WEF Gender Gap Index Score (0.00 = inequality, 1 = equality)	WEF Gender Gap Rank (out of 135 countries; 1 = best, 135 = worst)
Azerbaijan	9.17	86,600	47.8	5,290	13.0	100	0.655	99
Kazakhstan	16.56	2,727,300	41.0	8,260	5.8	100	0.721	31
Kyrgyz Republic	5.51	199,951	63.4	900	4.8	99	0.701	54
Uzbekistan	29.74 ^a	447,400	63.1	1,510	8.5	99	0.691 ^b	58 ^b

GDP = gross domestic product, GNI = gross national income, km² = square kilometer, WEF = World Economic Forum.

^a Population data for Uzbekistan is from 2012.

^b Uzbekistan score is from 2009 data.

Source: ADB. Azerbaijan. <http://www.adb.org/countries/azerbaijan/main>; ADB. Kazakhstan. <http://www.adb.org/countries/kazakhstan/main>; ADB. Kyrgyz Republic. <http://www.adb.org/countries/kyrgyz-republic/main>; ADB. Uzbekistan. <http://www.adb.org/countries/uzbekistan/main>; World Economic Forum. 2013. *The Global Gender Gap Report 2013*. Geneva; ITU. 2013. World Telecommunication/ICT Indicators Database. Geneva.

Table 2 Country Economic Empowerment Indicators, 2011

Indicators	Azerbaijan		Kazakhstan		Kyrgyz Republic		Uzbekistan	
	Female	Male	Female	Male	Female	Male	Female	Male
Account used for business purposes (% age 15+)	2.8	5.3	9.5	11.7	1.0	1.6	1.7	4.2
Labor force participation rate (% of population ages 15–64)	66.8	72.6	74.2	81.4	59.1	81.8	50.6	77.8
Ratio of female labor force participation rate (as % of male)	89.9		86.3		70.6		63.9	
Saved any money in the past year (% age 15+)	9.2	12.6	21.1	22.9	34.1	39.0	28.3	34.7
Saved at a financial institution in the past year (% age 15+)	1.3	1.9	6.3	7.2	1.0	0.8	0.5	1.1

Source: World Bank. 2013. World DataBank: World Development Indicators. <http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspx?source=world-development-indicators>

in the country. Women entrepreneurs in Azerbaijan tend to be overrepresented in low-growth, low-profit sectors such as food processing, textiles, agriculture, beauty care, and handicrafts. Women in rural areas engage mainly in business relating to retail trade, personal services, restaurants and catering, and agriculture.¹⁶

As of 2012, women run almost 40% of registered small and medium-sized businesses in Kazakhstan, owning 50%–65% of businesses in accommodation and food service, wholesale and retail trade, education, and agriculture.¹⁷ Kazakhstan women entrepreneurs can also be found in other sectors such as vehicle repair; real estate; manufacturing; transportation and storage; information and communication; professional, scientific, and technical activities; and administrative and support services.¹⁸

As of 1 January 2011, women entrepreneurs in the Kyrgyz Republic totaled 103,621.¹⁹ Most were found in the fields of education, trade and repair of motor vehicles, and supply of household goods.²⁰ Compared with 2008 data, the number of women entrepreneurs in industrial sectors has decreased and growth in trade has slackened. This finding is thought to be related to changes in customs and tax laws, particularly in the clothing and garment sector.²¹

At the end of 2010, entrepreneurs in Uzbekistan totaled 161,000, of whom only 38.3% were women

At the end of 2010, individual entrepreneurs in Uzbekistan totaled 161,000, of whom only 38.3% were women. One-third of all women entrepreneurs were engaged in retail trade services and the food industry.²² Women entrepreneurs in the country were concentrated in urban areas and mainly in the capital city of Tashkent.²³

Studies and reports²⁴ on women and entrepreneurship in the region highlighted barriers constraining women's entrepreneurship, most notably patriarchal gender stereotypes in families and communities; unequal distribution of family roles for men and women; limited access to resources—credit, technology, and equipment; and weaknesses in the social capital of women and lower levels of training. As a social group, women are also less mobile than men.

¹⁶ Republic of Kazakhstan, Statistics Agency. Unpublished Country Data for 2013.

¹⁷ Ibid. The breakdown is 57.4% in accommodations and food service, 56.1% in wholesale and retail trade, 65.2% in education, and 51.9% in agriculture.

¹⁸ Ibid.

¹⁹ Government of the Kyrgyz Republic. National Statistical Committee of the Kyrgyz Republic. Unpublished Country Data for 2013.

²⁰ Government of the Kyrgyz Republic. National Statistical Committee of the Kyrgyz Republic. 2012. Women and Men of the Kyrgyz Republic: 2007–2011 Compendium of Gender Disaggregated Statistics. Table 4.12. <http://www.unfpa.kg/uploads/women-and-men-in-the-kyrgyz-republic-en.pdf>. The breakdown is 56.8% in education; 52.2% in trade, repair of car, home appliances, and personal use items; 72.2% in housekeeping services; and 38.1 in the finance sector.

²¹ Government of Uzbekistan, The State Committee of the Republic of Uzbekistan on Statistics. Unpublished Country Data for 2013.

²² Ibid. The breakdown is 16.5% in retail trade services, and 14.4% in the food industry.

²³ Ibid.

²⁴ ADB. 2013. *Country Gender Assessment*. Manila; Sabarwal and Terrell. 2008. *Does Gender Matter for Firm Performance? Evidence from Eastern Europe and Central Asia*. World Bank.

Information and Communication Technologies Infrastructure and Programs

The Global Information Technology Report 2013 ranked Kazakhstan's Networked Readiness Index at 55th place out of the 144 economies.²⁵ Azerbaijan was ranked 61st and the Kyrgyz Republic 115th.²⁶ Uzbekistan was not ranked in the report. However, given that the country performed worse than the Kyrgyz Republic on almost all selected information and communication technology (ICT) indicators, with the exception of “Domestic mobile traffic” and “Individuals using the internet” (Table 3), one could expect Uzbekistan's ranking to be lower than or, at best, on a par with the Kyrgyz Republic.

The International Telecommunication Union (ITU) collected indicators in 2011 (Table 3)²⁷ to highlight the affordability, quality, accessibility, and usage of ICT in the four countries being studied. All have good mobile coverage—Azerbaijan has full coverage nationwide, and the other three countries have 93%–97% coverage. Kazakhstan has the highest rate of mobile phone subscriptions, followed by the Kyrgyz Republic. Nearly half of all households in Kazakhstan own a computer and have internet access, placing the country on top in these two categories. Azerbaijan comes second in computer ownership and home internet access, although, interestingly, the percentage of households with internet access is greater than the percentage of households who own a computer. This could be attributed to the use of mobile devices for internet access. Ownership of a household computer and household access to internet remain very low in the Kyrgyz Republic and Uzbekistan.

Kazakhstan and Azerbaijan appear committed to and have been investing in ICT infrastructure and e-government initiatives, while the Kyrgyz Republic and Uzbekistan are lagging behind in internet infrastructure and corresponding internet usage. Table 3 shows that internet speed is fastest in Kazakhstan—fixed broadband accounts for nearly 95% of internet subscriptions, and international internet bandwidth is almost 22,000 bits per second. In Azerbaijan, over three-quarters of internet subscriptions are for fixed broadband, and the country's international bandwidth of just over 19,000 bits per second is only slightly slower than that

Kazakhstan and Azerbaijan have been investing in information and communication technology infrastructure and e-government initiatives

²⁵ B. Bilbao-Osorio, S. Dutta, and B. Lanvin. (eds). 2013. *The Networked Readiness Index 2013 in The Global Information Technology Report 2013: Growth and Jobs in a Hyperconnected World*. Geneva. World Economic Forum and INSEAD. Available at: <http://www.weforum.org/reports/global-information-technology-report-2013>. The Networked Readiness Index 2013 by the World Economic Forum and INSEAD ranks 144 economies based on their capacity to exploit the opportunities offered by the digital age.

²⁶ The country scores were 4.32 in Kazakhstan, 4.11 in Azerbaijan, and 3.09 in the Kyrgyz Republic.

²⁷ World Bank and ITU. 2013. *The Little Data Book on Information and Telecommunications Technology 2013*. Washington, DC. World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/14453>

Table 3 Selected Country Information and Communication Technologies Indicators, 2011

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
Sector Performance				
(i) Access				
Fixed-telephone subscriptions (per 100 people)	18.1	26.3	9.3	6.9
Mobile-cellular telephone subscriptions (per 100 people)	108.7	155.7	116.4	91.6
Fixed (wired)-broadband subscriptions (per 100 people)	10.73	7.36	0.69	0.53
Households with a computer (%)	21.5	46.0	4.0	3.2
Households with internet access at home (%)	35.3	44.0	3.6	n/a
(ii) Usage				
International voice traffic, total (minutes/subscriber/month)	6.4	3.9	6.9	n/a
Domestic mobile traffic (minutes/subscriber/month)	110.5	68.4	78.7	154.3
Individuals using the internet (%)	50.0	45.0	20.0	30.2
(iii) Quality				
Population covered by a mobile-cellular network (%)	100	95	97	93
Fixed (wired)-broadband subscriptions (% of total internet)	75.7	94.6	32.1	3.2
International internet bandwidth (bits per internet user)	19,102	21,939	1,726	579
(iv) Affordability				
Fixed-telephone sub-basket (\$/month)	2.5	2.7	1.2	0.9
Mobile-cellular sub-basket (\$/month)	8.8	12.2	3.6	3.4
Fixed broadband sub-basket (\$/month)	12.5	23.9	54.6	200
(v) Applications				
Online service index (0–1, 1 = highest presence)	0.37	0.78	0.42	0.5

Source: World Bank and ITU. 2013. *The Little Data Book on Information and Telecommunications Technology 2013*. Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/14453>

of Kazakhstan. Of all four countries, Azerbaijan boasts the largest percentage of individuals using the internet—50% of the population. Kazakhstan comes a close second while Uzbekistan and the Kyrgyz Republic lag significantly behind. The Kyrgyz Republic and Uzbekistan also lag significantly behind Azerbaijan and Kazakhstan in the percentage of broadband subscriptions and the speed of the international internet bandwidth. Of the two, Uzbekistan has the lowest figures for both indicators. Broadband internet appears to be most affordable in Azerbaijan and extremely expensive in Uzbekistan. On the other hand, Uzbekistan has the cheapest rates for mobile phones, while those in Kazakhstan are the most expensive. While the data make no distinction between male and female ICT users, or urban and rural dwellers, data available in the region, and findings from this study indicate that figures for women's ICT use and ICT use in rural areas are likely to be lower.

According to the Ministry of Communications and Information Technologies (MoCIT) of Azerbaijan, the largest ICT infrastructure project being implemented in Azerbaijan is the fiber optic network project for developing the broadband internet network in the country (2013–2015). Funded by the State Oil Fund of the Republic

of Azerbaijan, and implemented by the MoCIT, the project aims to provide high-speed fiber optic internet to the entire population, including rural users.²⁸ Azerbaijan was also a catalyst in the planned Trans-Eurasian Information Super Highway, a regional project aimed at laying a transnational fiber optic line covering Eurasia, from Western Europe to East Asia.²⁹ The country is also implementing an e-government project as part of its E-Azerbaijan Program,³⁰ and creating a state fund for ICT development through a Presidential Order dated 15 March 2012.³¹ The purpose of the fund is to assist in implementing the state's ICT policy: to support entrepreneurship, stimulate innovative and scientific research projects, support the development of a modern infrastructure, provide financial support to small and medium-sized enterprises, and attract domestic and foreign investment to this area.

The Government of Kazakhstan recently launched the Program for Information and Communication Technologies Development in the Republic of Kazakhstan for 2010–2014. The program aims to create the infrastructure and conditions for developing ICTs in Kazakhstan, for its transition to an innovative information and economy, and to allow the formation of an export-oriented ICT sector. A state program, Information Kazakhstan – 2020³² was approved by Presidential Decree No. 464 on 8 January 2013, which aims to ensure the efficiency of the state administration system and accessibility of information and communication infrastructure; establish an information environment necessary for the social, economic, and cultural development of society; and develop the national information space. In 2010, eGov.kz was launched and can now be accessed through multiple channels, including the internet, mobile phones, and public access points.

In the Kyrgyz Republic, the Democratic Governance Program of the United Nations Development Programme is supporting the government in e-government implementation and capacity building for government bodies, enabling them to make better use of ICT.³³ At the Donors' Conference for the Kyrgyz Republic in July 2013, the minister of transport and communication presented ICT projects such as the development of fiber-optic networks in the Kyrgyz Republic to connect the north and the south of the country.

In Uzbekistan, a national program for further introduction and development of ICT is being implemented from 2012 to 2014,³⁴ which aims to train, retrain, improve skills, improve government websites and interactive services, ensure internet security, and promote ICT usage among the public, especially the rural population.

²⁸ ABC.AZ. 2013. High-Speed Fiber-Optic Network Connecting all Settlements of Azerbaijan to be Created in Three Stages From March 2013. http://abc.az/eng/news_07_01_2013_70692.html

²⁹ Republic of Azerbaijan, Ministry of Communications and High Technologies. <http://www.mincom.gov.az/projects/tasim/>

³⁰ Republic of Azerbaijan, Ministry of Communications and High Technologies. E-Government. <http://www.mincom.gov.az/projects/e-government/>

³¹ Republic of Azerbaijan, Ministry of Communications and High Technologies. State Fund for the Development of IT. <http://www.mincom.gov.az/activity/state-fund-for-development-of-it/>

³² A. Beisenova. 2010. *Development of Information Communication Technologies in Kazakhstan*. JSC "Economic Research Institute" of the Ministry of Economic Development and Trade of the Republic of Kazakhstan. <http://www.unescap.org/sites/default/files/4-Ms-Ardak-Beisenova-Kazakhstan.pdf>

³³ United Nations Development Programme. Democratic Governance website. <http://www.undp.org/content/undp/en/home/ourwork/democraticgovernance/overview.html>

³⁴ Government of Uzbekistan. Resolution of the President of the Republic of Uzbekistan. 2012. *About Measures for Further Implementation and Development of Modern Information and Communication Technologies*. Tashkent. <http://cis-legislation.com/document.fwx?rgn=61579>

Except in Kazakhstan, mobile banking and electronic payment services appear to be limited.³⁵ Major banks in Azerbaijan offer online and mobile banking (limited to a number of basic operations such as short messaging service (SMS) alerts of bank balance). Limited mobile services for bill payments are being offered. However, the national payment systems are being used widely. In the Kyrgyz Republic, as of 2013, mobile banking service had no specific legal basis. In Uzbekistan, electronic payments by individuals are currently restricted to those using debit cards, which are used for payments via a network of point of sale terminals available throughout the country. Several banks offer internet and mobile banking, focusing on information alerts through SMS to clients.

³⁵ ADB. 2013. *Making Mobile Financial Services Work for Central and West Asian Countries*. Manila.

Women Entrepreneurs and Information and Communication Technologies: Access, Ownership, Usage, Needs, and Programming Considerations

This section synthesizes the results of key informant interviews, focus group discussions, and surveys of women entrepreneurs in the urban, peri-urban, and rural areas of the countries being studied, and explores information and communication technology (ICT) usage, ownership, training needs, and support preferences. It also explores each country's environment for women's entrepreneurship development (WED) and ICTs, and the extent to which existing initiatives leverage ICTs to address women's needs.³⁶ The analysis also considers the practical considerations in designing ICT programs for women entrepreneurs, including the type of ICT support needed, effective information channels for promoting programs, and overall affordability.

Azerbaijan

1. Information and communication technology ownership and business usage

Survey results show women entrepreneurs' limited ICT ownership and usage in Azerbaijan. While many women own and regularly use mobile phones (without internet connections), few own other kinds of ICT tools or services (such as computers, internet on computers, internet-enabled laptops or handheld tablets), and even fewer use the more advanced features. Four aspects of this limited ICT usage and ownership are of interest when planning ICT-based interventions.

Many women in Azerbaijan own and regularly use mobile phones (without internet connections), but few own other kinds of information and communication technology tools or services

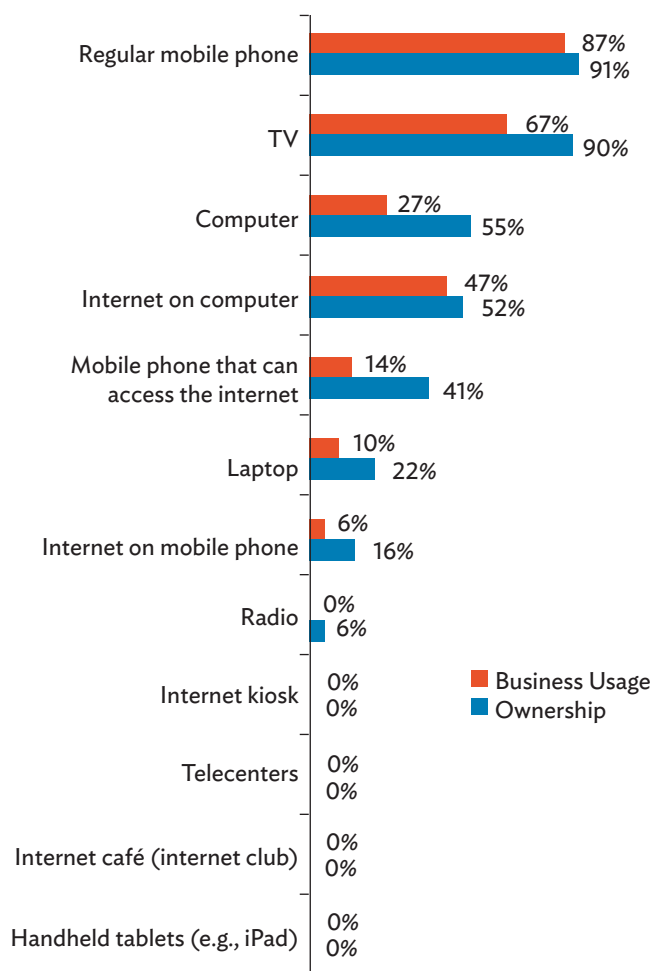
³⁶ Approximately 105 women entrepreneurs in urban, peri-urban, and rural areas from each of the four countries participated in the survey, and six focus group discussions were held with women entrepreneurs in urban, peri-urban, and rural areas. See Appendix 1 for the list of organizations approached for key informant interviews. Appendix 2 contains information about the location of the focus groups in urban, rural, and peri-urban areas in the four countries. Appendix 3 is a sample of the questionnaire used in all four countries during the study. Further unpublished raw data from this consultation phase are found in T. Nguyen. Matrix for Mapping of Stakeholders; T. Nguyen. Detailed Analysis of Findings; T. Nguyen. Focus Group Summary.

While 41% of women entrepreneurs surveyed had internet-capable mobile phones, only 16% had activated internet services on their phones, and only 6% used those services for business activities

First, ICTs are not being used to their full potential for business activities. For example, while 41% of women entrepreneurs surveyed had internet-capable mobile phones, only 16% had activated internet services on their phones, and only 6% used those services for business activities (Figure 1). Similarly, although 55% of women entrepreneurs had a computer, only 27% used it for business activities. Focus group discussions and survey results attribute low ICT usage to women entrepreneurs' lack of understanding of the capabilities of their devices, which suggests the need for training programs.

Second, survey results revealed the purpose for which women entrepreneurs use their devices. Figure 1 shows making phone calls to be the most common, followed by using the internet on computers. Using mobile phones for short messaging service (SMS) or internet access is minimal. Focus groups indicated two reasons for this: (i) lack of useful ICT-enabled services for women entrepreneurs (for example, despite the low SMS usage, when asked if they would be interested in a service that delivered useful information to women entrepreneurs via SMS, the majority of respondents (79%)

Figure 1 Azerbaijan: Participants' Ownership and Usage of Information and Communication Technologies



SMS = short messaging service, VOIP = voice over internet protocol.
 Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, questions 14 and 25.

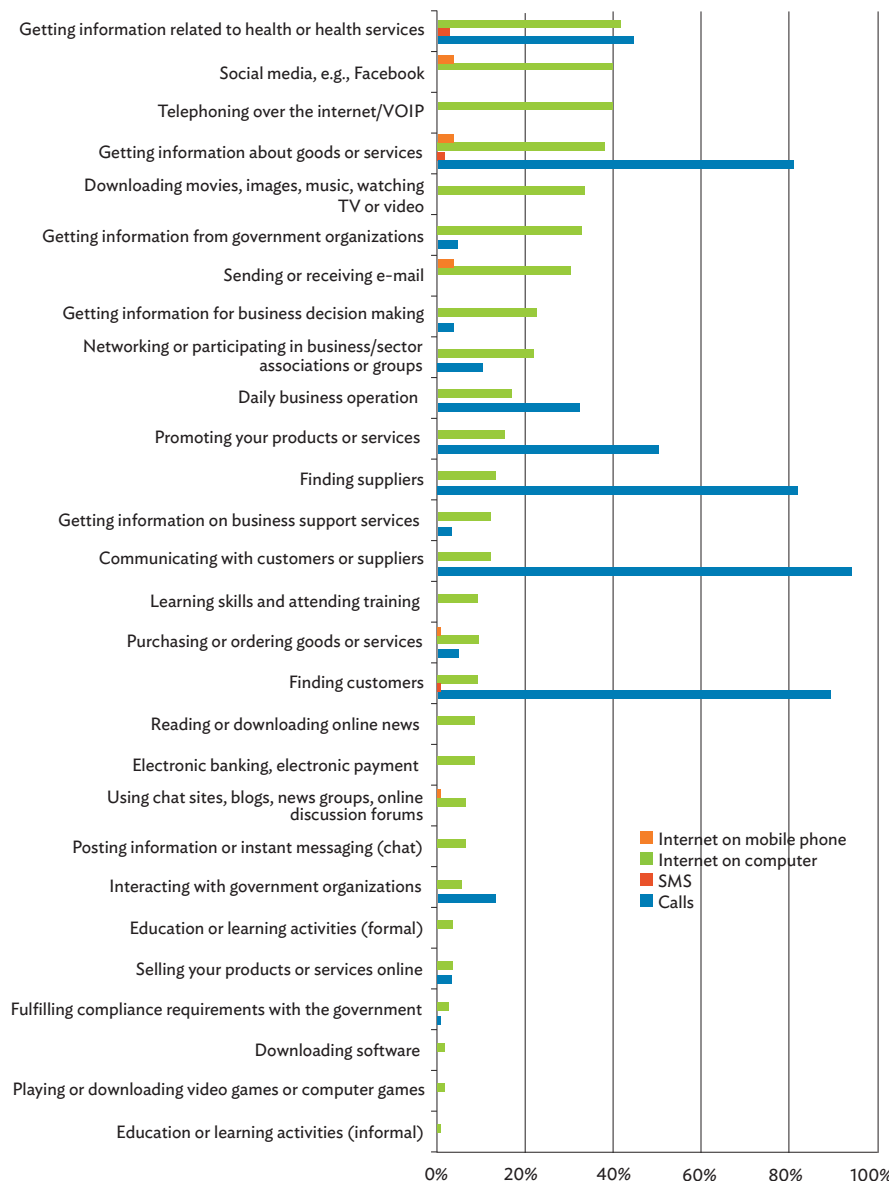
said they would; and (ii) women entrepreneurs’ lack of capacity to operate their devices. Hence, they use their phones for only the most basic functions: making and receiving calls.

“There are many women who...can’t use functions other than making and receiving calls.”

Women entrepreneurs used the internet mostly for basic and personal activities—many business activities could have been done over the internet but are not

The third finding relates to their reasons for using ICT. Women entrepreneurs surveyed used the internet mostly for basic and personal activities such as getting information related to health or health services, telephoning over the internet and/or voice over internet protocol (VOIP), and using social media (Figure 2). Many business activities could have been done over the internet but are not, indicating untapped

Figure 2 Azerbaijan: Participants’ Information and Communication Technology Activity in the Last 12 Months



SMS = short messaging service, VOIP = voice over internet protocol.

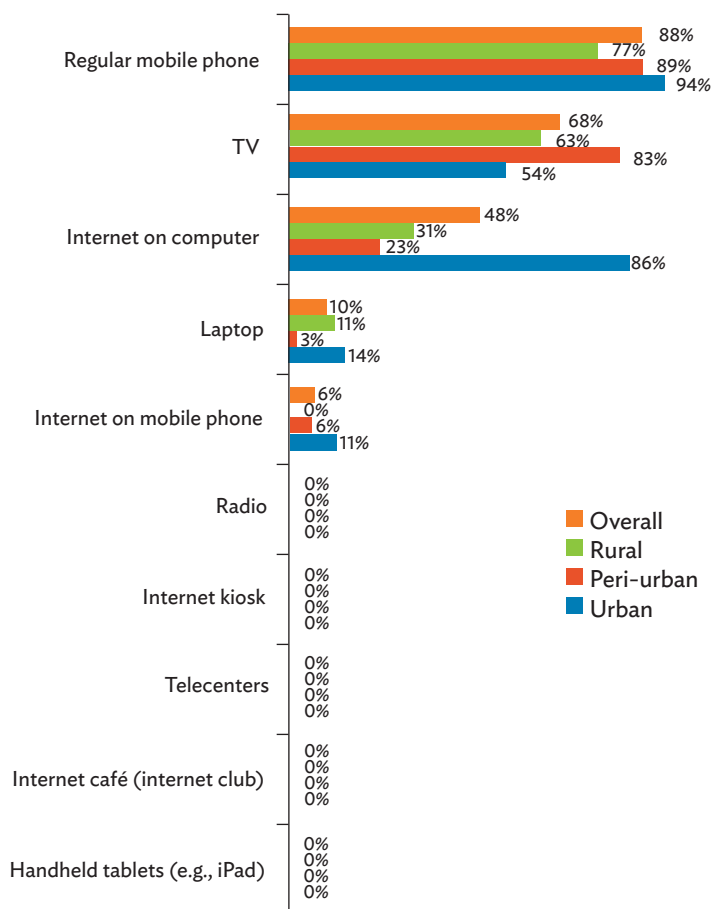
Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 28 and 29.

potential and missed opportunities. Respondents appeared to prefer doing business over the internet rather than by making phone calls, as seen in their usage figures (e.g., networking or participating in business and/or sector associations or groups; getting information from government organizations, or information for business decisions such as compliance issues, products or competitors, and learning skills). This suggests a potential to further develop this trend of preference to widen the range of internet activities and increase the number of users. Focus group findings further support this with a strong indication that women entrepreneurs want to expand the range of internet activities for business.

“I would like to use the internet or ICT for online educational purposes like upgrade the skills and knowledge of my staff, so for that I would love to have some online educational programs... or bring some experts over here. Or, no, since it costs a fortune to do that, it would be much cheaper to do online education and training to upgrade the level of staff expertise.”

Figure 3 Azerbaijan: Use of Information and Communication Technologies in Business Activities

“Do you use any of the following tools for your business activities?”



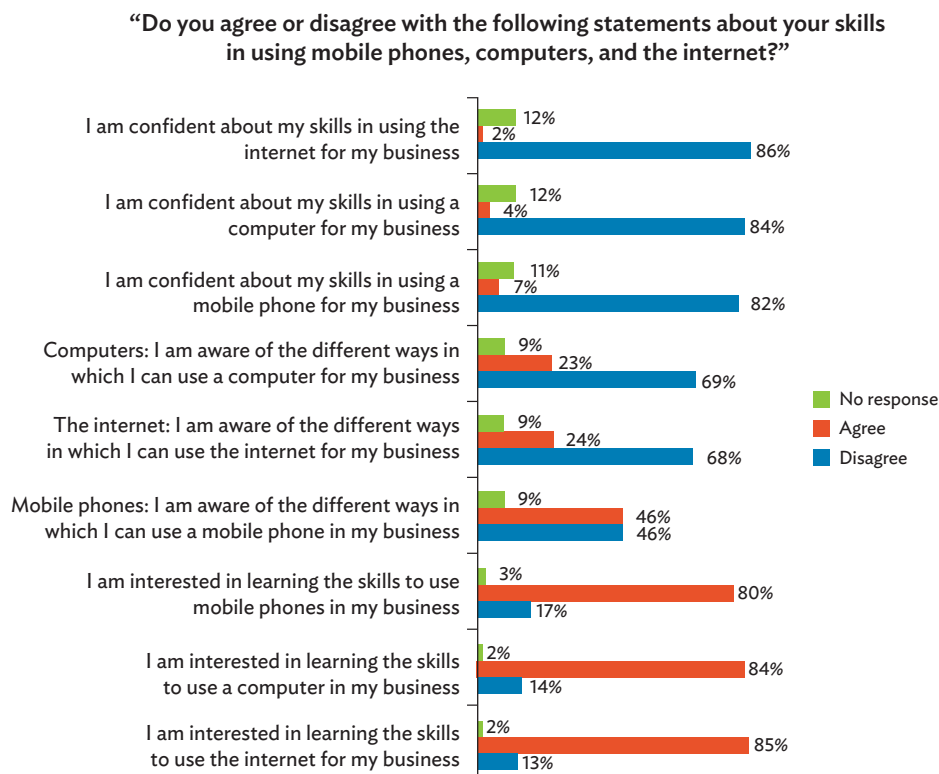
Fourth, as Figure 3 shows, women entrepreneurs in peri-urban and rural areas risk missing out on the opportunities ICTs present, with only about one-third of them using the internet compared with women entrepreneurs in urban areas. This is consistent with the 2010 gender-disaggregated data of the International Telecommunication Union (ITU) for Azerbaijan, which shows that (i) women in rural areas lag behind those in urban areas in internet usage (20.7% versus 50.4%); (ii) overall, women lag behind men in internet usage (36.5% versus 55.6%); and (iii) the inequality in internet usage is most pronounced between urban males and rural females (66% versus 20.7%).³⁷

Thus, the main findings indicate that the key constraints to ICT ownership and usage in Azerbaijan include women entrepreneurs’ limited ICT skills, and their lack of awareness of and low confidence in using mobile phones, computers, and the internet for business (Figure 4). Lack of interest is not a reason for the low usage, as the participants showed strong interest in learning the skills to use their mobile phones, computers, and the

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 14.

³⁷ ITU. 2013. World Telecommunication/ICT Indicators Database. Geneva.

Figure 4 Azerbaijan: Perception of Information and Communication Technology Skills



Note: Numbers may not add up to 100% due to rounding.

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 47.

internet for their businesses. Affordability may not be a reason for limited ICT usage. The ITU’s data for the affordability of ICT services in Azerbaijan show that in 2011, Azerbaijan’s ITU ICT Price Basket³⁸ was at 1.8% of gross national income per capita, putting it within the group of 57 countries where ICT services pricing is considered affordable.

In addition to limited ICT skills, and lack of awareness and confidence, rural women entrepreneurs are further constrained by attitudinal barriers that lead to low ICT ownership and usage. A strong theme emerging from focus group discussions was the common perception that it is improper for women to use the internet because it is seen as a tool for meeting men online (through online chat). Internet cafés are off-limits to women as there would be men there, so their husbands, fathers, or brothers would not permit them to go. In Baku, women can go to women-only internet clubs, which do not exist in peri-urban or rural areas.

“...Another thing is attitude, local people’s attitude toward women who want to use the internet. They will start gossiping about this woman. They will start gossiping as this woman is chatting and dating. When a woman uses the internet, people’s attitude is that she does that to chat with other men.”

Attitudinal barriers lead to rural women entrepreneurs’ low information and communication technology ownership and usage

³⁸ ITU. 2012. *International Communications Union: The Information Society 2012*. Geneva. Table 3.1. 76. The ITU ICT Price Basket benchmarks the cost and affordability of telecommunication and information and communication technology services.

Local content and localized information and communication technology services relevant to women entrepreneurs are lacking and are not effectively promoted to women entrepreneurs

Steps should be taken to remove the stigma associated with internet usage by women in rural areas, and possibly to create women-only public internet access points.

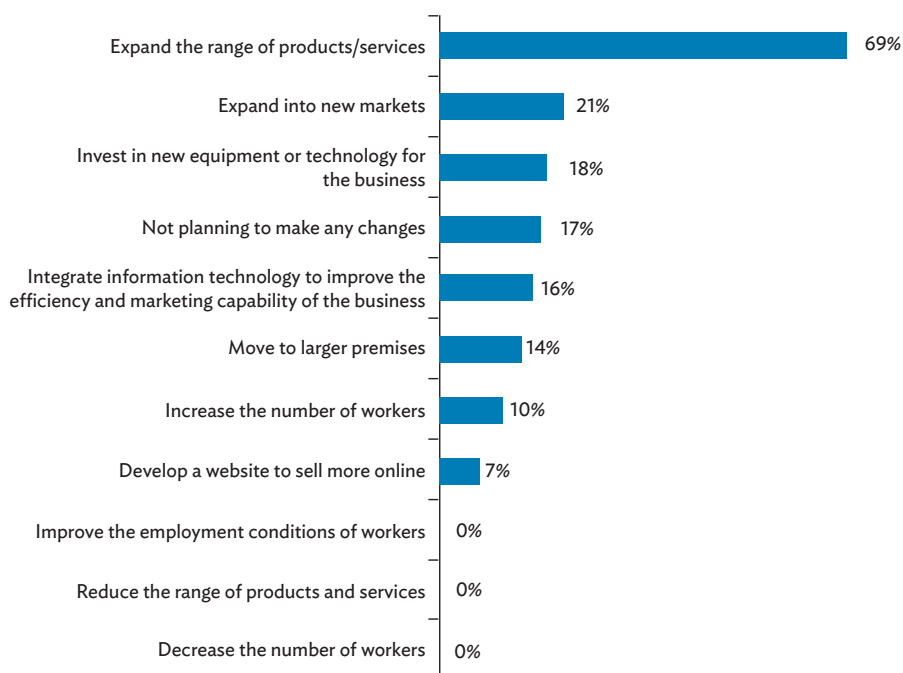
Finally, key informant interviews and focus group discussions indicated a lack of local content and localized ICT services relevant to women entrepreneurs. Even when these services do exist, they do not seem to be effectively promoted to women entrepreneurs. This is confirmed by women entrepreneurs’ replies to a survey question to name any website, online service, or application on mobile phone that they thought would be useful for businesses. Only 2 respondents out of 93 were able to name a local service, while a few others named international services like Facebook, YouTube, and Google.

2. The potential for better integration of information and communication technologies

When asked about their plans for growing their business in the next year, women entrepreneurs in Azerbaijan cited four most common areas of planned growth: (i) expanding their range of products and services, (ii) expanding into new markets, (iii) investing in new equipment, and (iv) integrating information technology into the business to improve efficiency and marketing capability (Figure 5). The fact that ICT was among the more frequently mentioned areas of planned growth indicates that this is an area of interest and need.

Women entrepreneurs cited five key constraints in growing their businesses: accessing financing; finding customers; using ICTs for business; finding advisors, consultants, and mentors to give growth advice; and accessing new markets (Figure 6). Given that respondents cited high interest rates, high collateral requirements, and the short term

Figure 5 Azerbaijan: Areas for Future Business Development



Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 62.

Figure 6 Azerbaijan: Perceived Constraints on Business Growth

ICT = information and communication technology.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 63.

of loans as key constraints to accessing finance, ICT is not likely to make a difference in these areas. However, as outlined in later sections, ICTs can certainly be used to help women entrepreneurs overcome constraints in finding customers; using ICTs for business; finding advisors, consultants, and mentors to give growth advice; and accessing new markets.

When designing relevant and useful ICT training programs for women entrepreneurs, understanding the kind of support and the topics that are needed is crucial. Knowing the appropriate information channels for program promotion is also important for program outreach, especially when targeting women entrepreneurs in peri-urban and rural areas whose mobility and access to information is limited. Finally, information about affordability is useful when considering the pricing and sustainability of services.

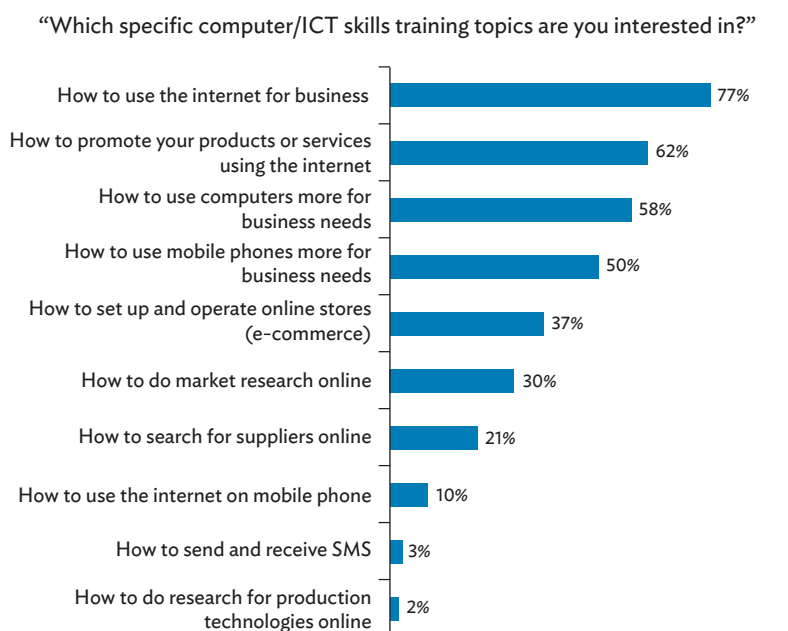
Education and/or training was the most common type of ICT support requested.³⁹ Figure 7 lists the most requested ICT training topics: ways to use the internet for business, ways to use the internet to promote products and services, and ways to make better use of the computer for business.

Cross-tabulation analysis of responses showed that setting up and operating online stores is a topic more frequently required by respondents in urban areas rather than those in rural or peri-urban areas. On the other hand, how to promote your products

When designing information and communication technology training programs for women entrepreneurs, especially those in peri-urban and rural areas, it is important to know the kind of support they need and the appropriate channels for promoting the program

³⁹ T. Nguyen. Detailed Analysis of Findings. p. 47. The actual figure was 65%. Other requests included: access to computers and the internet (27%) and better internet access (5%).

Figure 7 Azerbaijan: Information and Communication Technology Skills Training



ICT = information and communication technology, SMS = short messaging service.

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 48 and 49.

Few respondents had participated in women-targeted business support programs and 64% of those who did not participate were unaware that the programs existed, suggesting either a shortage of programs or a failure to effectively promote them to women entrepreneurs

or services using the internet is a topic that receives significantly more interest from all groups, including urban respondents, and those in peri-urban and rural areas.⁴⁰

Figure 8 shows that only a small percentage of respondents had participated in business support programs designed specifically for women entrepreneurs. Of those who did not participate, 64% stated that they were not aware that such programs existed.⁴¹ This suggests either a shortage of such programs, or a failure to effectively promote the programs to women entrepreneurs.

When asked about the most effective way to obtain business information, respondents mentioned television, family, friends, and neighbors (word of mouth), other female business owners, and the internet and mobile phones as being the most frequently used (Figure 9). These channels should be used when targeting information for women entrepreneurs.

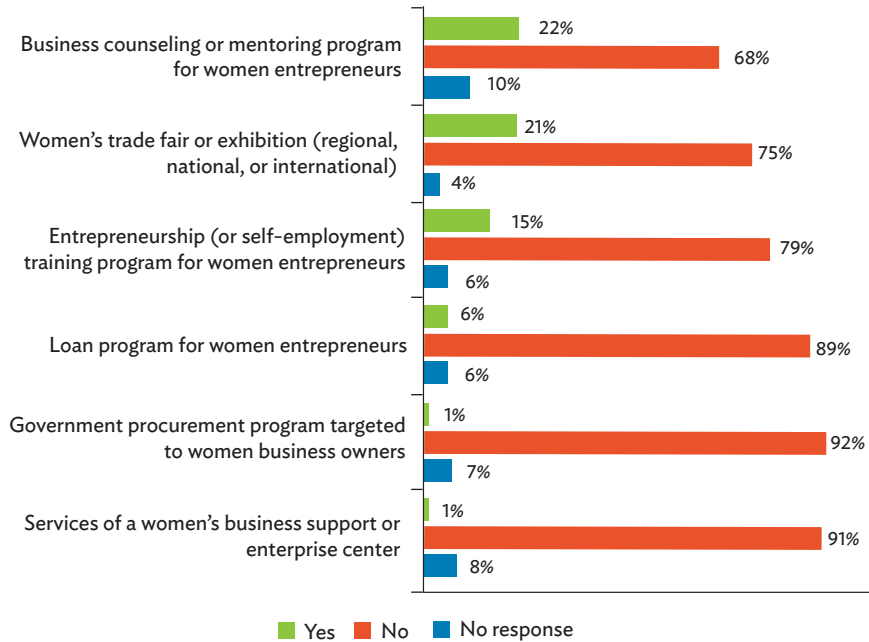
For program sustainability, knowing if and how much participants would be willing to pay for the services provided by the program is important. Peri-urban and rural participants’ level of affordability appear to be noticeably less than those in urban

⁴⁰ Respondents in urban areas were most interested in how to set up and operate online stores (86%). Participants in peri-urban areas (93%) and rural areas (73%) were most interested in how to promote products using the internet. This was also important to urban respondents (83%). T. Nguyen. Detailed Analysis of Findings. p. 48.

⁴¹ T. Nguyen. Detailed Analysis of Findings. p. 49.

Figure 8 Azerbaijan: Participation in Business Support Programs for Women Entrepreneurs

“Have you ever participated in business support programs that were offered specifically to women entrepreneurs?”



Note: Numbers may not add up to 100% due to rounding.
 Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 19.

Figure 9 Azerbaijan: Sources of Business-Related Information

“Where do you get most of your information on business-related matters?”



SMS = short messaging service.
 Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 44.

areas, implying the need for a sliding pricing scale for services to women entrepreneurs in urban, peri-urban, and rural areas. Participants were asked how much they would be willing to pay per month for an SMS information service. The most common responses were AZN2 or AZN5, with the amount varying according to the location of the business. Respondents from urban areas were willing to pay more than those in peri-urban and rural areas. On average, respondents from urban areas were willing to pay AZN58, while those in peri-urban and rural areas were willing to pay AZN13 and AZN14, respectively.⁴² Respondents were also asked how much, on average, they spent on mobile phone costs, as an indication of their actual willingness and ability to pay for training services.

For mode of delivery, respondents in all locations preferred face-to-face training, with 89% requesting it. The second most popular method of training, with 26% of respondents listing it, was learning through the internet on a computer. Of these, the majority (56%) were from urban areas. None of the respondents expressed interest in business training through the internet by mobile phone or SMS. The primary reasons cited for preferring face-to-face training were (i) not having access to a computer at home, (ii) not knowing how to use the internet, and (iii) finding a face-to-face explanation clearer and easier. Those who preferred to learn through internet on a computer said that this format gave them flexibility and convenience, allowing them to stay home and to balance their other responsibilities.⁴³

Clearly the findings from the women entrepreneurs in Azerbaijan show that training and support programs need to be designed for face-to-face delivery with the option of flexible delivery through the internet, so that participants can choose the mode that suits them best. Such programs for women in peri-urban and rural areas will meet their preference for face-to-face support and interaction.

In Azerbaijan, training and support programs for women entrepreneurs need to be designed for face-to-face delivery with the option of flexible delivery through the internet

Kazakhstan

1. Information and communication technology ownership and business usage

Figure 10 shows that women entrepreneurs from Kazakhstan appear to have better access to and ownership of ICTs than those in the other countries under review. The table shows that the mobile phone is the ICT device most commonly owned. However, the majority of women entrepreneurs also have access to the internet and computer. Nearly half of them have access to the internet on mobile phones. This is consistent with available ICT data for Kazakhstan, which shows that, as of 2011, Kazakhstan had a mobile phone subscription rate of 155.7% per population,⁴⁴ higher than the average of 92.4% for upper-middle-income countries. In the same survey, 46% of households were estimated to have a computer, and of these, 44% had internet connection (Table 3).⁴⁵

The data on business location, however, show that the rural population still lags behind. The majority of respondents with businesses in rural areas reported that they had either not used a computer (86%) or the internet on a computer (70%). In

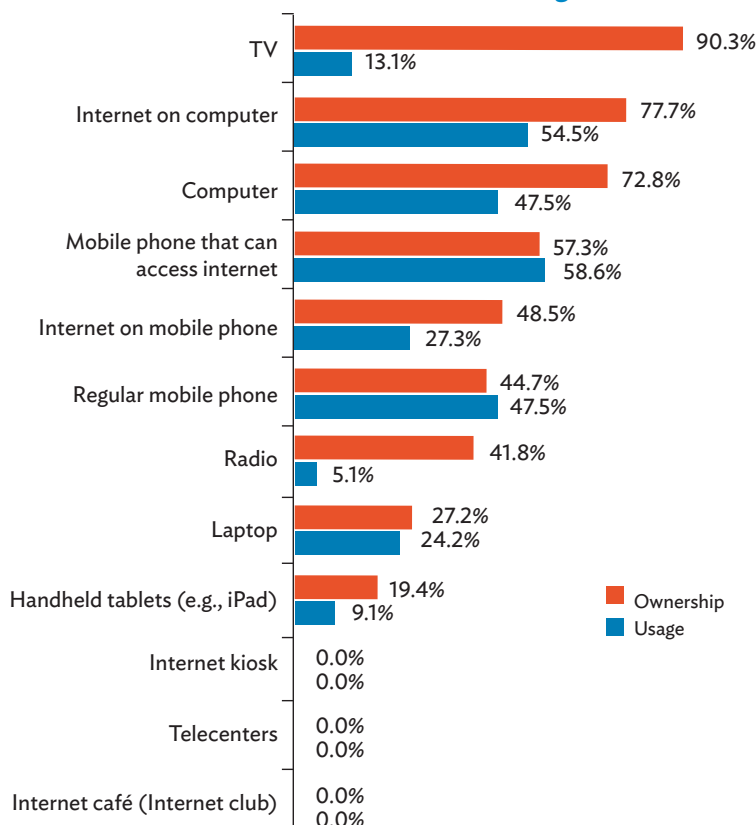
⁴² T. Nguyen. Detailed Analysis of Findings. pp. 53–56

⁴³ Ibid. pp. 51–52.

⁴⁴ World Bank and ITU. 2013. *The Little Data Book*.

⁴⁵ Ibid.

Figure 10 Kazakhstan: Participants’ Ownership and Usage of Information and Communication Technologies



Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 14 and 25.

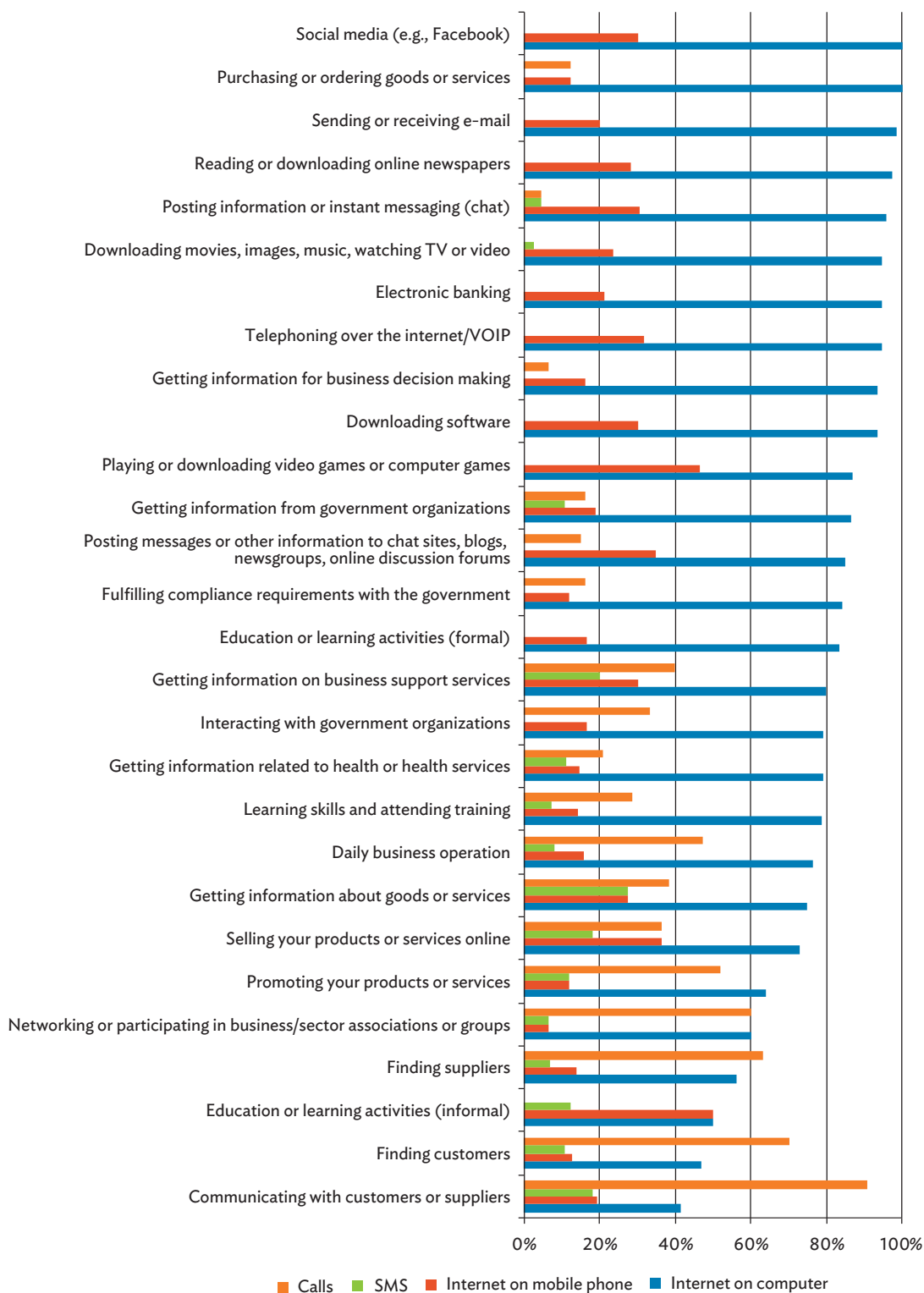
contrast, all urban respondents and 97% of peri-urban respondents reported using a computer or the internet in the previous 12 months. Similar data from the Republic of Kazakhstan Statistics Agency⁴⁶ show that the rural population in 2013 lagged behind in computer and internet usage: 71.5% of the urban population between the ages of 6 and 74 years use computers compared with only 51.6% of the rural population; and 73.9% of the urban population of the same age use the internet compared with only 47.2% of the rural population. Encouragingly, data from the Statistics Agency also showed a narrow gap between male (54%) and female (46%) users. Given these high levels of access and ownership, internet on computers, and even internet on mobile phones are suitable ICT tools for supporting women entrepreneurs in Kazakhstan.

Figure 11 shows that women entrepreneurs in Kazakhstan use the internet on computers reasonably frequently for a diverse range of activities. However, most of the activities are still relatively basic or personal, such as use of social media, purchasing or ordering goods or services, and sending e-mail, even when women entrepreneurs are using more advanced ICT tools such as internet on computers and internet on mobile phones. Business activities requiring more advanced ICT skills—such as selling products or services online, promoting products or services using ICTs, or finding customers—are undertaken most infrequently by those with

In rural areas, 86% of respondents had not used a computer, and 70% had not used the internet on a computer in the past year. During the same period, all urban respondents and 97% of peri-urban respondents reported using a computer and the internet

⁴⁶ Republic of Kazakhstan. Statistics Agency. Unpublished Country Data. 2013.

Figure 11 Kazakhstan: Participants' Information and Communication Technologies Activity in the Last 12 Months



SMS = short messaging service, VOIP = voice over internet protocol.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, questions 28 and 29.

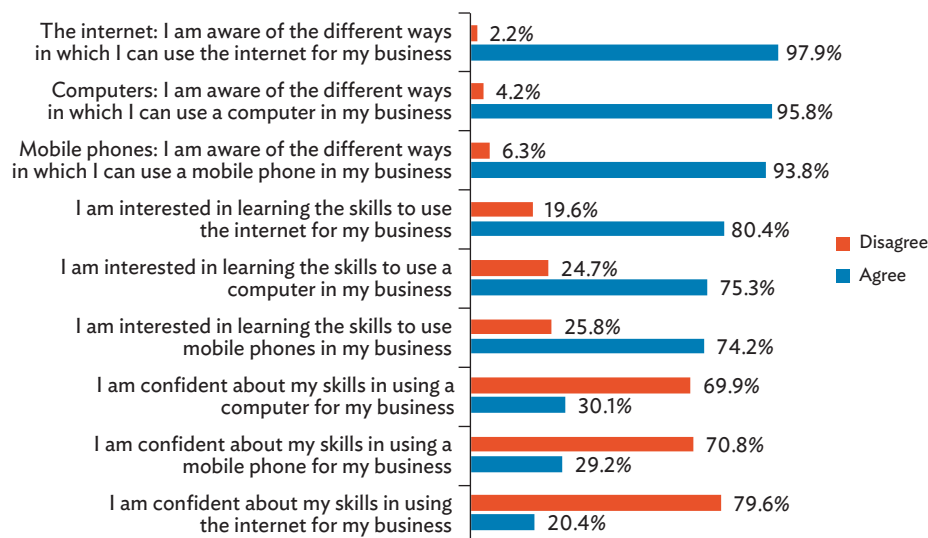
advanced ICT devices, who conduct their businesses most frequently through basic ICT tools such as making phone calls. Only 15% of respondents reported having a website for their business. This combination of high ownership of advanced tools but basic usage points to training opportunities to help women entrepreneurs leverage ICTs more effectively for their businesses.

The combination of high ownership of advanced tools but basic usage points to training opportunities to help women entrepreneurs leverage information and communication technologies more effectively for their businesses

Figure 12 indicates that lack of skills is one of the key reasons for the ICT usage pattern described above. The majority of respondents are aware of how ICT tools can be used for business, have a high interest in learning the skills to do so, but low confidence in their ability to do it. This is confirmed when the women were asked to list the difficulties they encountered when using computers, mobile phones, and the internet. The most common response was lack of training (44%), with businesses in rural areas suffering more as a result than the other two groups.⁴⁷

Figure 12 Kazakhstan: Perception of Information and Communication Technology Skills

"Do you agree or disagree with the following statements about your skills in using mobile phones, computers, and the internet?"



Note: Numbers may not add up to 100% due to rounding.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 47.

⁴⁷ T. Nguyen. Detailed Analysis of Findings. p. 101.

2. The potential for better integration of information and communication technologies

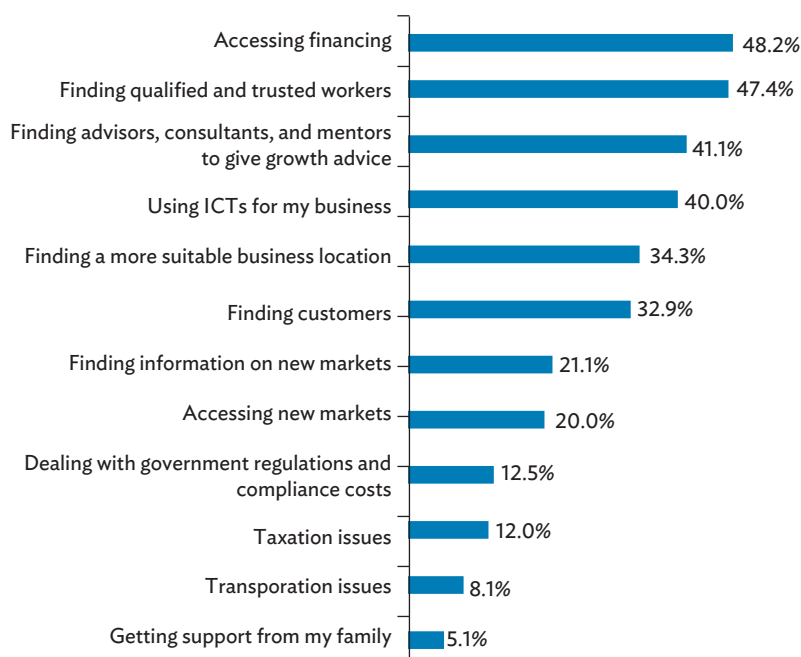
When asked about plans to grow their businesses in the next 12 months, and the constraints on growth (Figures 13 and 14), many women entrepreneurs in Kazakhstan expressed the desire to expand their businesses directly through the use of ICT (Figure 13)—for example, 36% wish to better integrate ICT into their

Figure 13 Kazakhstan: Areas for Future Business Development



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 62.

Figure 14 Kazakhstan: Perceived Constraints on Business Growth



ICT = information and communication technology.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 63.

business, and 27% wish to develop a website and/or online sales)—or through avenues where ICT could play a greater role (e.g., accessing financing, finding qualified and trusted workers, and finding customers). However, the fourth most common constraint on business growth, as mentioned by 40% of respondents, was their inability to successfully use ICTs in their business. This conflicting data suggests a real need for ICT training programs that help women entrepreneurs leverage ICTs to grow their business and overcome the constraints they face.

Most participants requested education and training so that they could use ICTs more effectively in their business.⁴⁸ Consistent with the findings outlined in Figures 13 and 14, when asked about the specific business tasks they would like to learn to undertake with ICT tools, women entrepreneurs in Kazakhstan showed the highest interest in ways to promote products and services using the internet, ways to use the internet for business, and ways to use computers for business (Figure 15). This finding points to a need for programs that help women entrepreneurs learn to use the internet for market access.

For modes of training delivery, respondents from Kazakhstan, regardless of location, listed face-to-face training for computer-based topics as their preferred option, with 57% listing it as their first choice. However, nearly a third of participants are interested in online learning through the internet on a computer, indicating that there are opportunities for delivering training online as well.⁴⁹

Figure 15 Kazakhstan: Information and Communication Technology Skills Training



ICT = information and communication technology, SMS = short messaging service.

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 48 and 49.

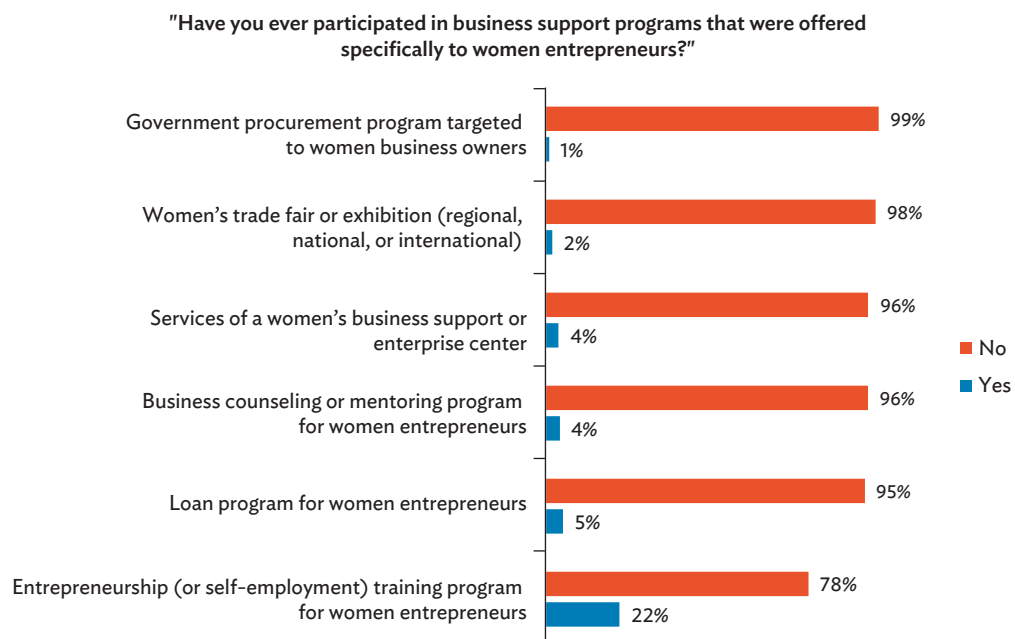
⁴⁸ The percentage of requests for education/training ICT support was 72%. Other requests included better connections (19%) and financing (9%). T. Nguyen. Detailed Analysis of Findings. p. 106.

⁴⁹ T. Nguyen. Detailed Analysis of Findings. p. 108.

Figure 16 shows that the majority of women entrepreneurs had never participated in any business support programs for women entrepreneurs primarily because they either did not know these existed (76%), or felt they had no need for them (20%).⁵⁰ This finding points again to an opportunity to promote existing schemes more effectively and to adapt them more specifically to women entrepreneurs' needs.

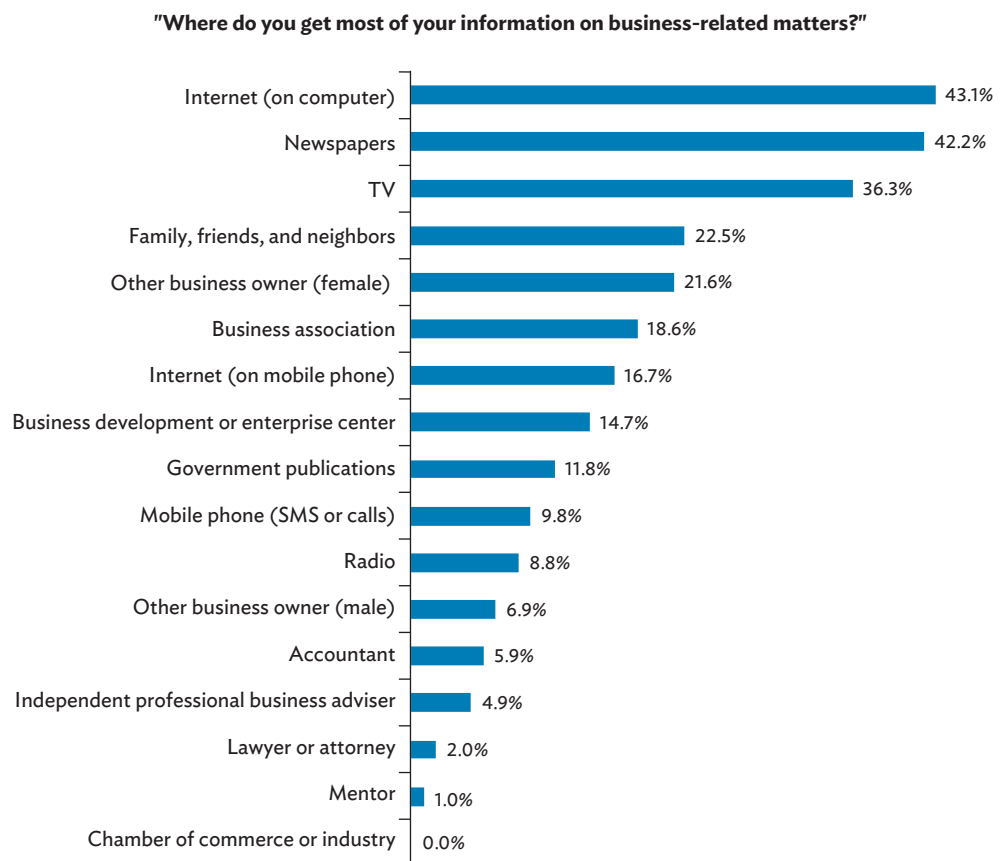
As for promoting training programs and communicating effectively with women entrepreneurs in Kazakhstan, Figure 17 shows that the top channel for reaching them appears to be the internet, followed by newspapers, television, and word of mouth.

Figure 16 Kazakhstan: Participation in Business Support Programs for Women Entrepreneurs



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 53.

⁵⁰ T. Nguyen. Detailed Analysis of Findings. p. 105.

Figure 17 Kazakhstan: Sources of Business-Related Information

SMS = short messaging service.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 44.

Kyrgyz Republic

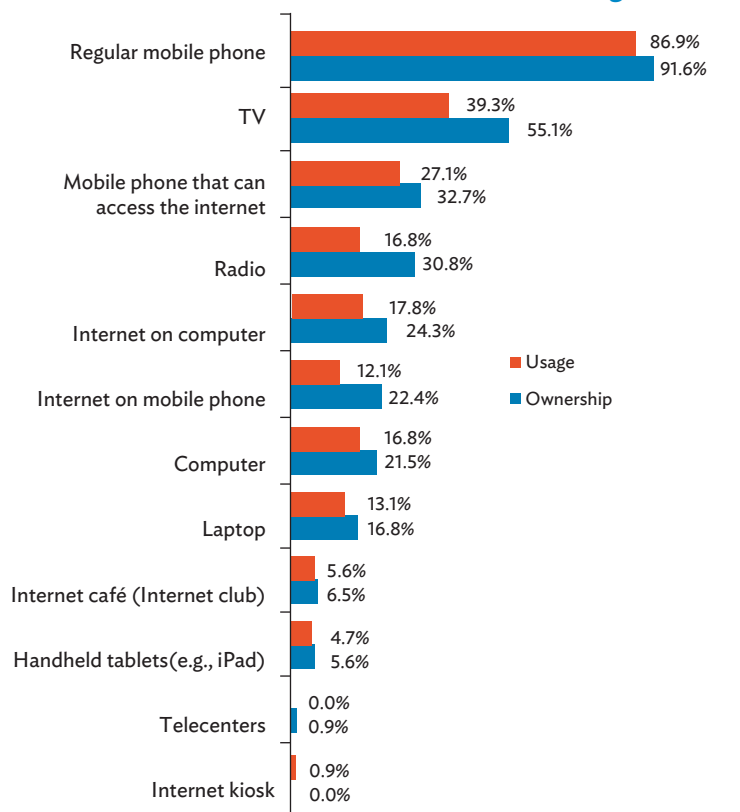
1. Information and communication technology ownership and business usage

Figure 18 shows that mobile phones remain the ICT tool of choice among women entrepreneurs from the Kyrgyz Republic, with the vast majority owning a regular mobile phone and about a third of those surveyed owning internet-capable mobile phones. Only a few women own computers. This is consistent with the ITU's 2012 data estimates, which show that only 21.72% of the people of the Kyrgyz Republic use the internet.⁵¹ However, Table 3 shows that 116.4% of the population have mobile phone subscriptions. Although almost one-third of respondents own an internet-capable mobile phone (Figure 18), only a little over 12% actually use the internet on their phone, which could be due to a combination of factors, including lack of skills, connectivity issues, and costs.

The mobile phone is the favorite tool of women entrepreneurs in the Kyrgyz Republic—most own a regular mobile phone and about one-third own internet-capable devices

⁵¹ ITU. 2013. *ICT Facts and Figures*.

Figure 18 Kyrgyz Republic: Participants' Ownership and Usage of Information and Communication Technologies



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, questions 14 and 25.

Mobile phones enable women entrepreneurs in the Kyrgyz Republic to start and grow businesses. Most women entrepreneurs have access to mobile phones, but not to the internet and a computer

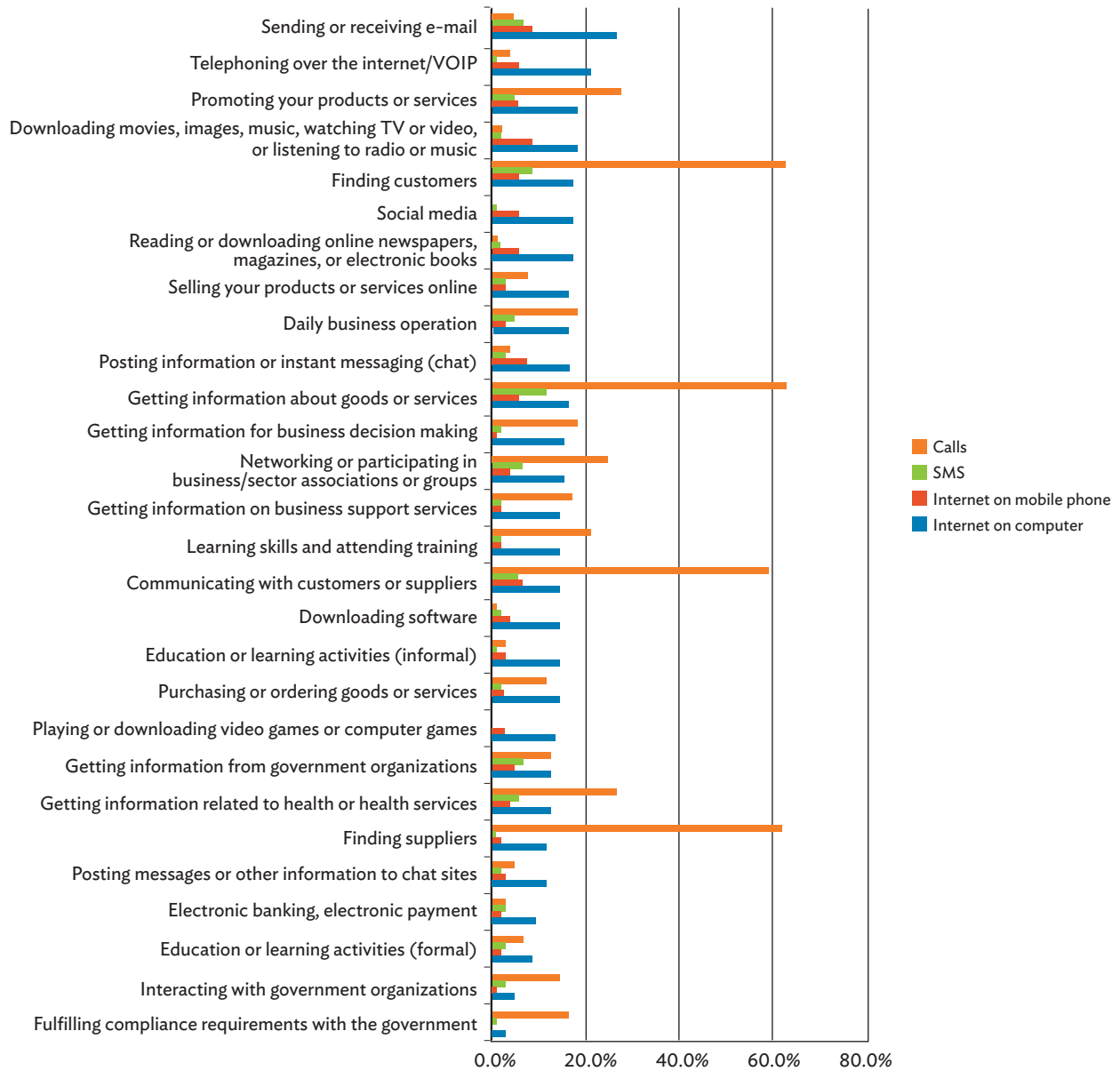
Respondents do not use their ICT devices to their full potential. Figure 19, for example, shows that more advanced use of ICTs for e-commerce or e-learning is missing, and the majority report not having a website and not using mobile or online financial services. Key informant interviews, focus group discussions, and interviews with women entrepreneurs point to a combination of factors to explain this: women entrepreneurs' limited ability to use ICTs, the limited range of readily available services, and the lack of awareness about and poor promotion of existing services.

Women entrepreneurs in urban areas appear to be much more likely to have internet on their mobile phone (43%), have internet on a computer (40%), and own a laptop (37%) or a computer (34%), compared with those in peri-urban and rural areas, where only 5% to 19% own such tools.⁵² The majority of respondents in rural areas (78%) and peri-urban areas (74%) reported that they had not used a computer in the last year. Similarly, the majority of respondents with businesses in rural areas (70%) and peri-urban areas (80%) reported that they had not used the internet in the last year.⁵³ These findings are echoed in the questionnaire results (Figure 20). This implies that

⁵² T. Nguyen. Detailed Analysis of Findings. p. 133.

⁵³ Ibid. pp. 133–134.

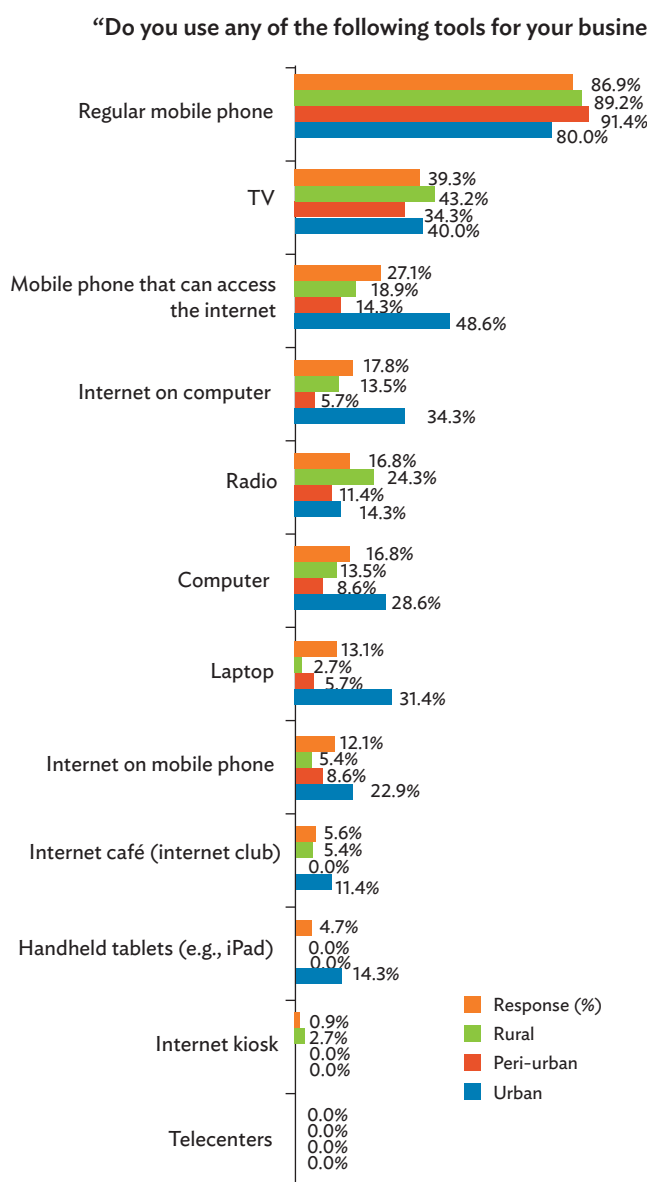
Figure 19 Kyrgyz Republic: Participants' Information and Communication Technology Activity in the Past 12 Months



SMS = short messaging service, VOIP = voice over internet protocol.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, questions 28 and 29.

Figure 20 Kyrgyz Republic: Use of Information and Communication Technologies in Business Activities



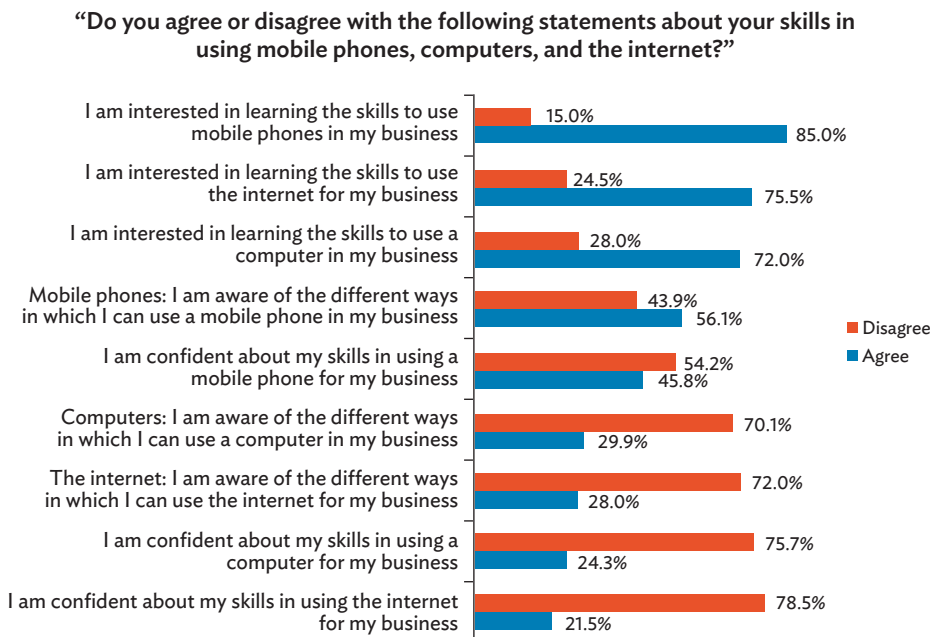
Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 14.

Women entrepreneurs’ high interest levels, moderate awareness, and low confidence in their skill level indicate that they would likely be receptive to skills training programs designed specifically for them

the mobile phone is the most suitable ICT tool for enabling women entrepreneurs in the Kyrgyz Republic to start and grow businesses, given that the majority of women entrepreneurs in rural and urban areas have access to this tool, but limited access to the internet and computers.

As seen in Figure 21, survey participants in the Kyrgyz Republic say they are interested to learn the skills to use mobile phones, computers, and the internet in their businesses. They consider themselves moderately aware of the different ways these tools can be used in business. However, confidence in their ICT skill level for business is low. Women entrepreneurs’ high interest, moderate awareness, and low

Figure 21 Kyrgyz Republic: Perception of Information and Communication Technology Skills



Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 47.

confidence in skill level indicate that there are opportunities for creating skills training programs for them, since their attitude indicates that they would likely be receptive to such programs.

2. The potential for better integration of information and communication technologies

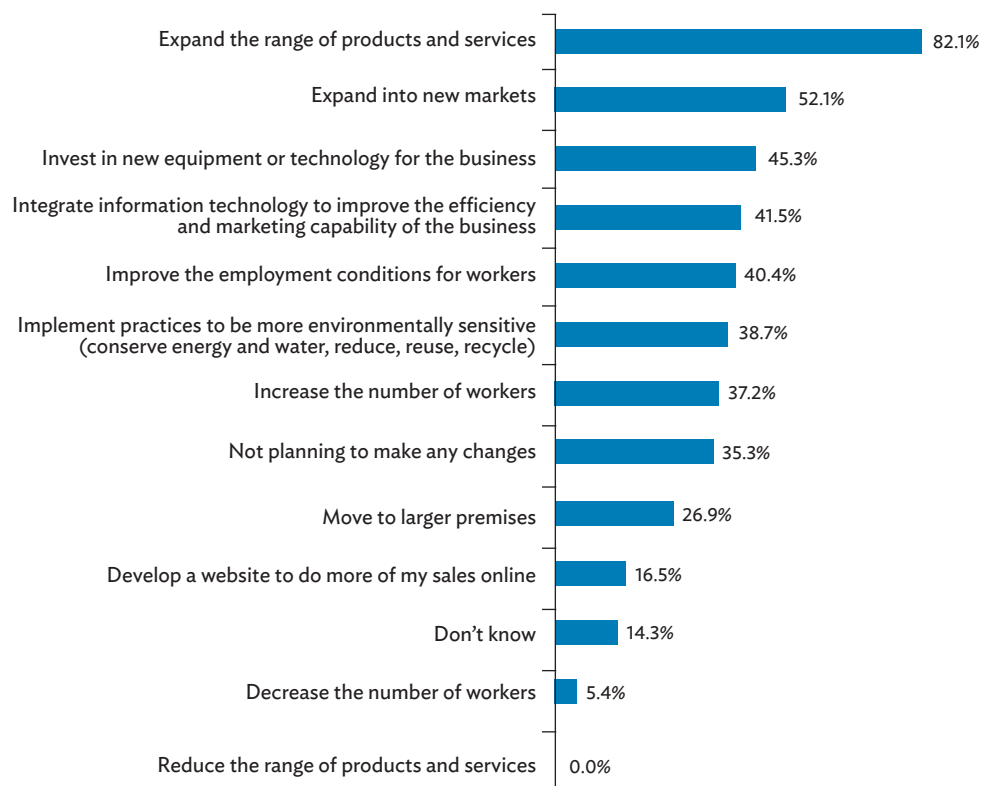
Similar to women entrepreneurs in Azerbaijan, those from the Kyrgyz Republic listed their top four priorities in growing their business: (i) to expand their range of products and services; (ii) to expand into new markets; (iii) to invest in new equipment or technology for the business; and (iv) to integrate information technology to improve the efficiency and marketing capability of the business (Figure 22). Two of these areas relate to ICTs, signifying its importance to women entrepreneurs. In Figure 23, the top of the list of perceived constraints on business growth are those in which ICTs can make a direct difference: accessing financing, taxation issues, finding information on new markets, and accessing those markets.

When asked about their overall ICT support needs, almost half of the women entrepreneurs from the Kyrgyz Republic listed ICT education and training as their top priority.⁵⁴ The most requested ICT training topics (Figure 24) were how to promote products or services using the internet, how to use the internet for business, and how to use the internet on mobile phone. Nearly half of women entrepreneurs want

Information and communication technologies can make a direct difference to the perceived constraints on business growth—accessing finance, taxation issues, finding information on new markets, and accessing those markets

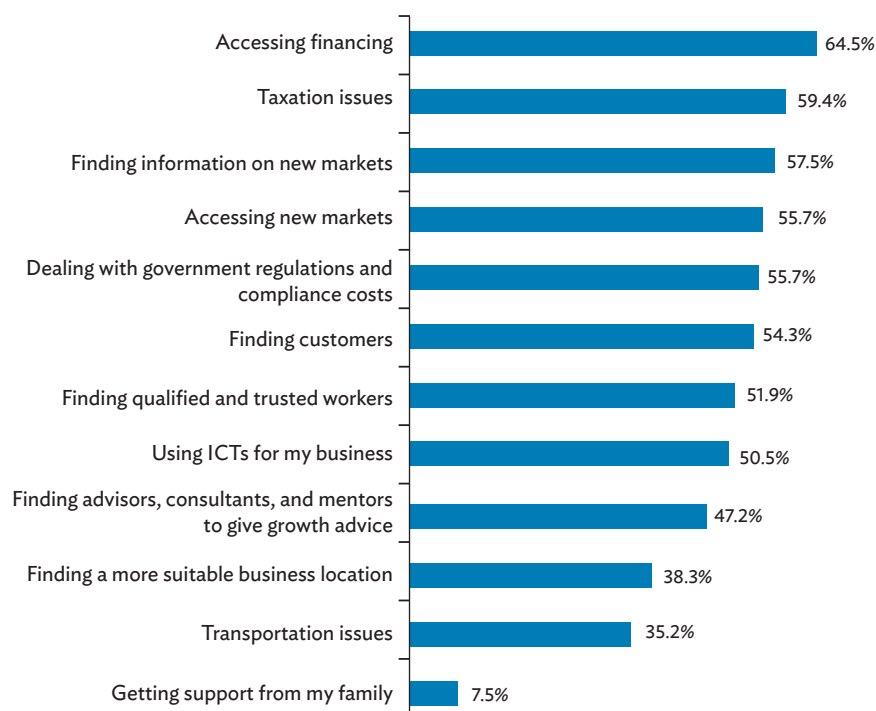
⁵⁴ The most common support requested was for education and training (47%). T. Nguyen. Detailed Analysis of Findings. p. 157.

Figure 22 Kyrgyz Republic: Areas for Future Business Development



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 62.

Figure 23 Kyrgyz Republic: Perceived Constraints on Business Growth

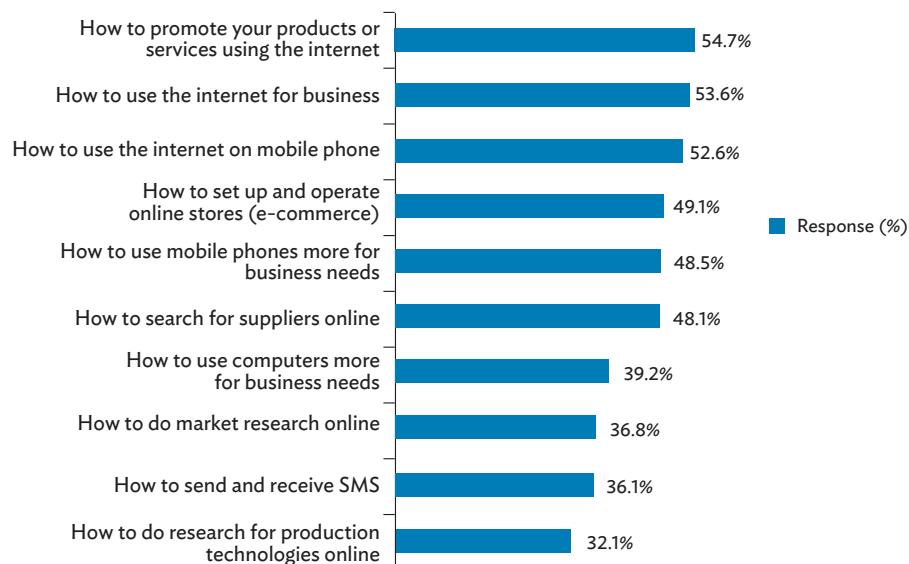


ICT = information and communication technology.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 63.

Figure 24 Kyrgyz Republic: Information and Communication Technology Skills Training

“Which specific computer/ICT skills training topics are you interested in?”



ICT = information and communication technology, SMS = short messaging service.

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 48 and 49.

to learn how to use mobile phones for their business needs. Mobile phones remain the most commonly available ICT tool, while ownership of and access to other ICT tools is limited.

The majority of participants had never taken part in any type of business support programs for women entrepreneurs (Figure 25). When asked why, 76.4% said they did not know such programs existed,⁵⁵ highlighting that programs should be better promoted to women entrepreneurs.

Face-to-face training for computer-based topics was the training location of choice for 82% of respondents. As in Azerbaijan and Kazakhstan, learning through the internet on a computer was the second most preferred option for women entrepreneurs in the Kyrgyz Republic (21%). Of these, 48% were from businesses in urban areas. Training through SMS was selected by 19% of respondents, of whom 44% were from rural locations where many had no access to computers or the internet, and had simple mobile phones.⁵⁶ This indicates that to reach the rural population using ICTs in the Kyrgyz Republic, SMS-based programs would be most suitable for now and most likely to have the widest reach. When asked whether women entrepreneurs would be interested in an information service that delivers useful information to their mobile phone by SMS, the majority (84%) of respondents said they would be.⁵⁷

To reach the rural population in the Kyrgyz Republic, SMS-based programs would be most suitable for now and most likely to have the widest reach

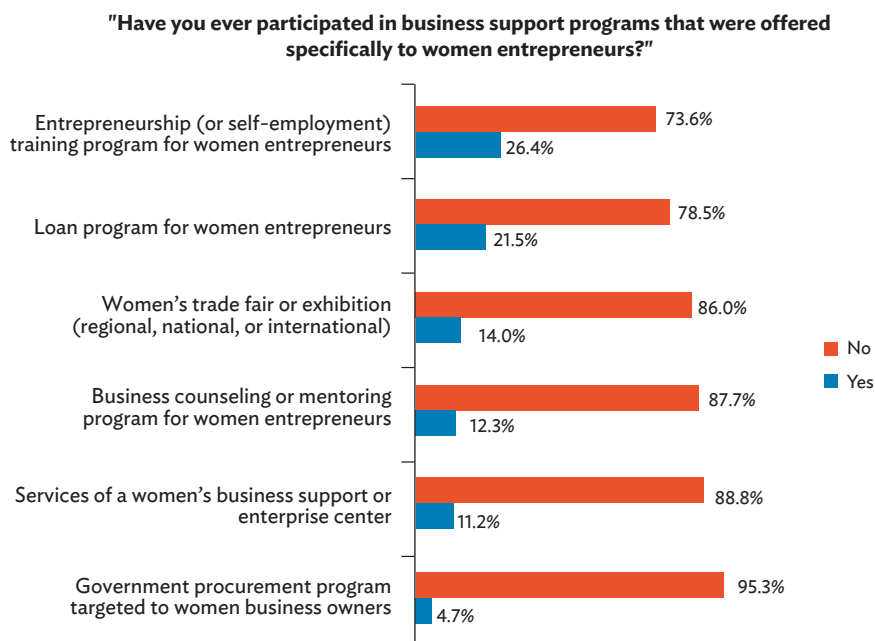
Of the three channels respondents obtain business-related information from, newspapers are the best for promoting programs to women entrepreneurs in the Kyrgyz Republic, followed by television and word of mouth (Figure 26).

⁵⁵ T. Nguyen. Detailed Analysis of Findings. p. 160.

⁵⁶ Ibid. pp. 163–164.

⁵⁷ Ibid. p. 166.

Figure 25 Kyrgyz Republic: Participation in Business Support Programs for Women Entrepreneurs



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 53.

Figure 26 Kyrgyz Republic: Sources of Business-Related Information



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 44.

To find out how much participants would be willing to pay for services, they were asked to provide their average monthly mobile phone costs. Participants paid an average of Som200–Som300, which varied depending on the location of the business, with urban respondents willing to pay more than those in peri-urban or rural locations. For an SMS information service, most respondents were willing to pay Som50–Som100 monthly. This indicates the range that could be charged for the service.

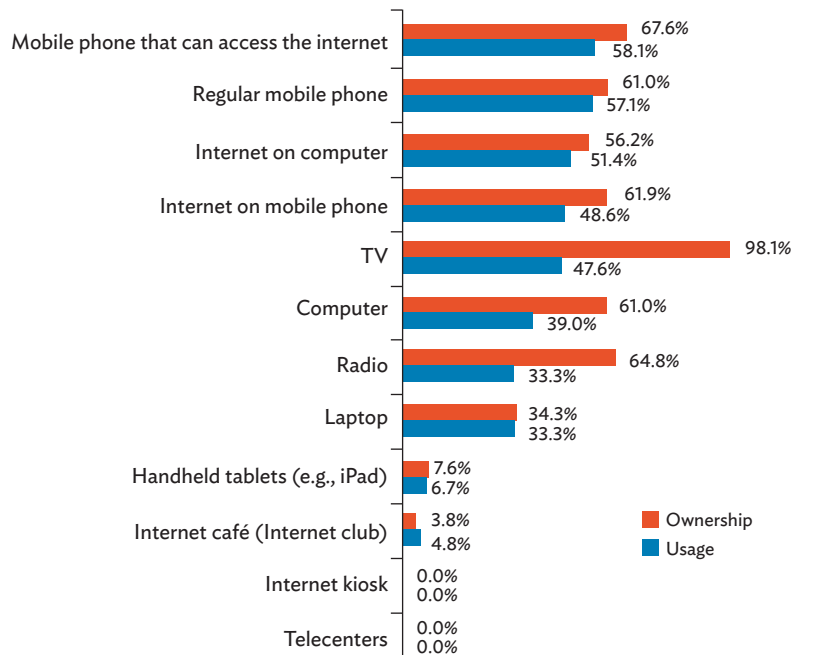
Uzbekistan

1. Information and communication technology ownership and business usage

The ITU in 2011 estimated (Table 3) that although more than 90% of Uzbekistan’s population had mobile phone subscriptions, only a little under one-third used the internet. A small percentage of households (3.2%) had a computer but no data was available on how many had internet at home.⁵⁸ However, women entrepreneurs from Uzbekistan who were surveyed for this study appeared to have relatively good access to and ownership of ICT technologies (Figure 27). The majority of respondents reported owning an internet-enabled mobile phone and having access to the internet using

The International Telecommunication Union in 2011 estimated that although more than 90% of Uzbekistan’s population had mobile phone subscriptions, only a little under one-third used the internet

Figure 27 Uzbekistan: Participants’ Ownership and Usage of Information and Communication Technologies



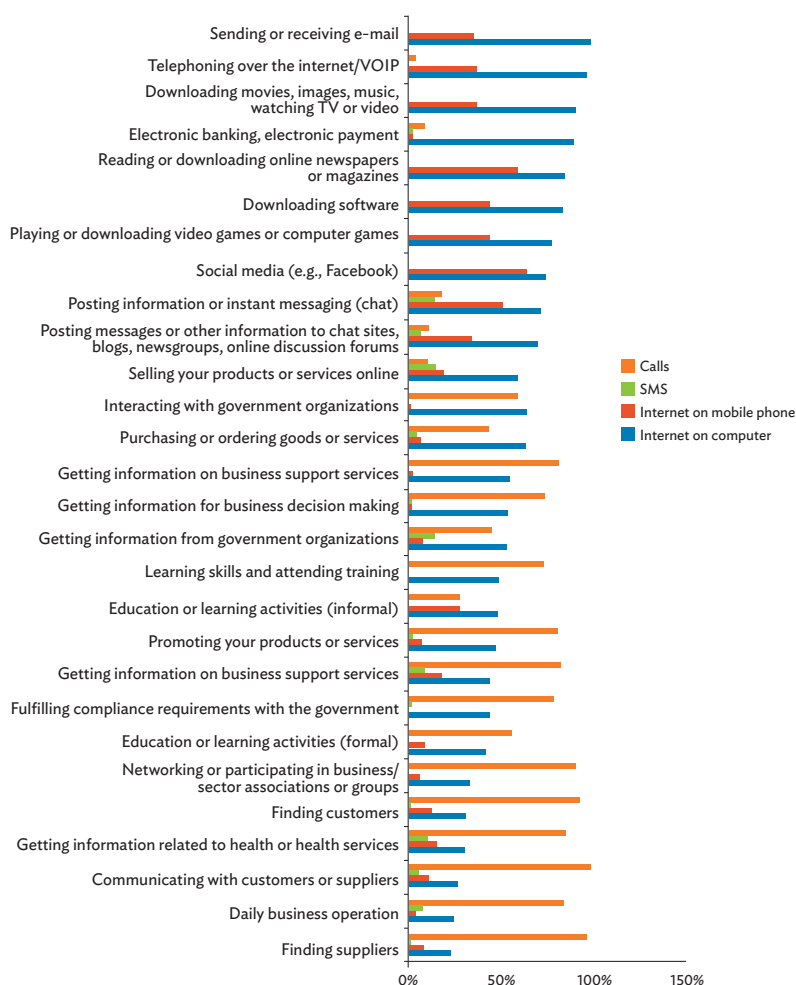
Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 14 and 25.

⁵⁸ World Bank and ITU. 2013. *The Little Data Book*. http://www.itu.int/en/ITU-D/Statistics/Documents/publications/ldb/LDB_ICT_2013.pdf

both a mobile phone or a computer. However, it is important to note that because of time and resource constraints, the sample of participating women entrepreneurs from Uzbekistan consisted of women who were more established in their businesses (more than 40% of respondents were members of the Chamber of Commerce and Industry, an organization that focuses on larger, more established businesses than the microenterprises that make up the majority of businesses owned by women). As a result, rural women entrepreneurs surveyed for this study did not appear to lag behind their urban or peri-urban counterparts. Interviews with key informants, however, including businesswomen’s associations indicate that the average rural woman entrepreneur in Uzbekistan is more in line with the rest of the region (i.e., rural women tend to have simple mobile phones, rather than internet-enabled mobile phones, and are less likely to have access to computers and the internet).

The majority of business activities (such as receiving information on business support services or decision making, promoting goods and services or getting information about them, fulfilling compliance with government requirements, finding or communicating with customers, daily business operation, and finding suppliers) were being carried out with phone calls (Figure 28). Internet on computers and mobile phones were

Figure 28 Uzbekistan: Participants’ Information and Communication Technology Activity in the Last 12 Months



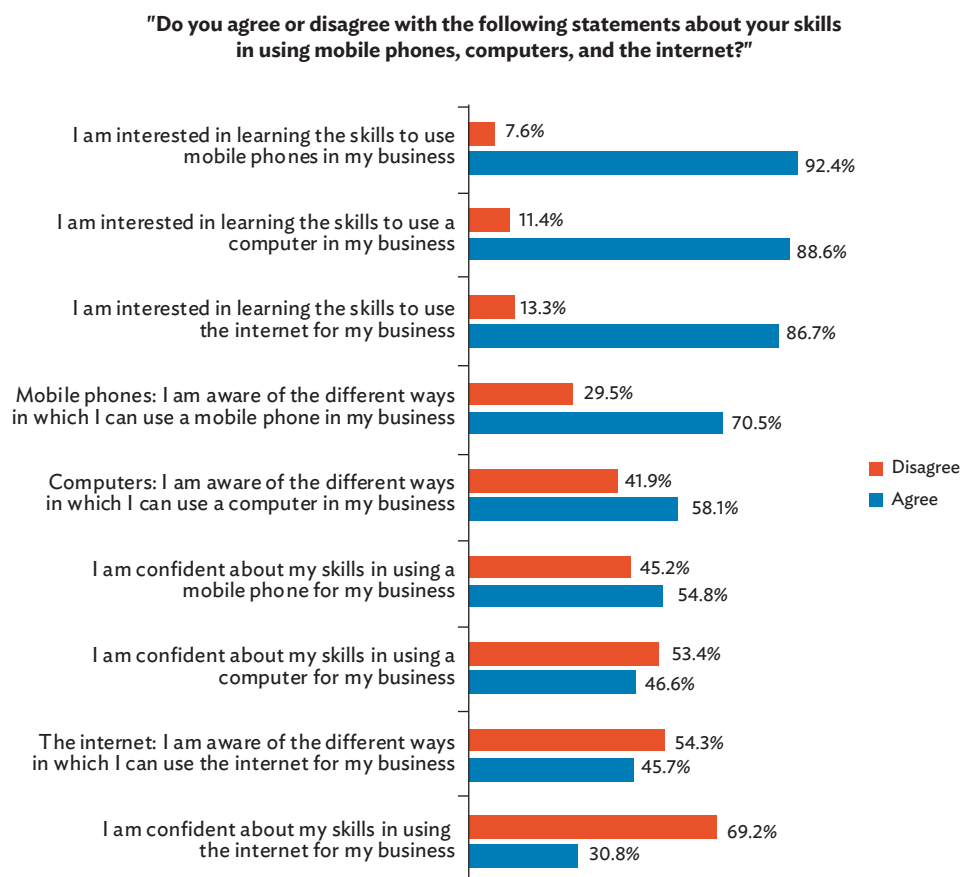
Note: SMS = short messaging service, VOIP = voice over internet protocol.

Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, questions 28 and 29.

used mainly for personal activities (for example, sending and/or receiving e-mail, downloading movies or music, and downloading online magazines or newspapers). Only 15% of respondents reported having a website for their business. When asked why, almost one-third said they did not feel a need for it.⁵⁹ This makes sense given the low level of computer and internet usage among the population as a whole.

When considering women entrepreneurs' perceptions of their ICT skills, respondents are strongly interested in learning to use mobile phones, the computer, and the internet for their business (Figure 29). The majority of respondents indicated that they are aware of the different uses of a mobile phone in their business, and are confident in using these functions. However, few of them are aware of the business potential of the internet on computers, and do not feel confident about their ability to use such tools for their businesses. This points to opportunities for training programs.

Figure 29 Uzbekistan: Perception of Information and Communication Technology Skills



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 47.

⁵⁹ Although only 15% of respondents reported having a website for their business, there were slight differences depending on the location of the business. Only 6% of both peri-urban and rural respondents reported having a website, compared with 34% of urban respondents. T. Nguyen. Detailed Analysis of Findings. p. 205.

2. Potential for better integration of information and communication technologies

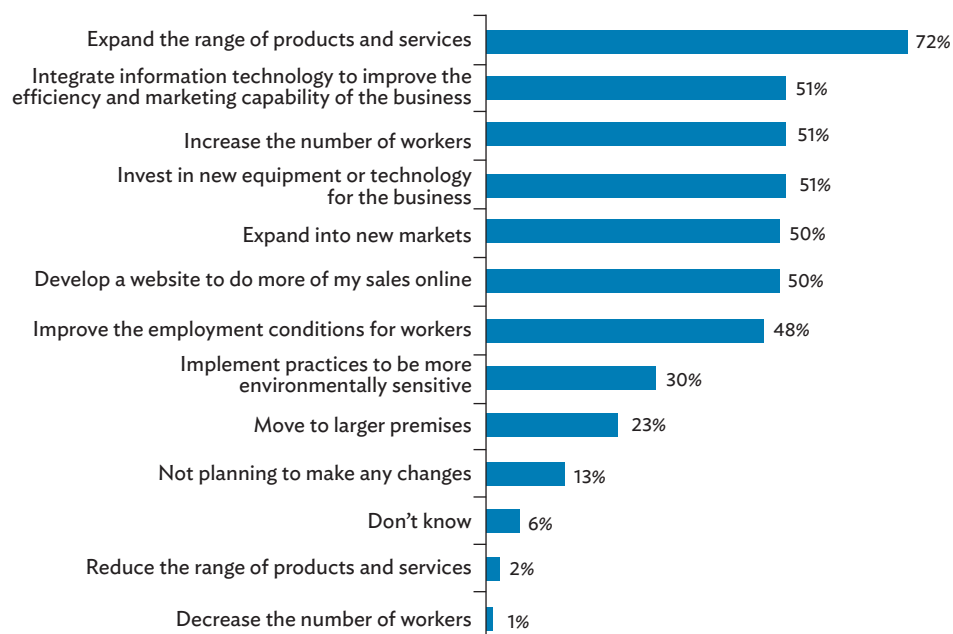
The planned areas for business development for women entrepreneurs in Uzbekistan are to (i) expand the range of products and services; (ii) integrate information technology to improve the efficiency and marketing capabilities of the business; and (iii) increase the number of workers in their business (Figure 30).

The poor quality and slow speed of internet connections, and the high cost of internet usage in Uzbekistan highlight the need for reduced costs, improved infrastructure, and information and communication technology training programs

Regarding perceived constraints on business growth, respondents believed that problems would most likely be found in accessing new markets, finding customers, and taxation issues. These are constraints that ICTs could help overcome. It is worth noting, however, that more than half of the respondents mentioned the use of ICT in their businesses as an area constraining their future growth. The poor quality and slow speed of internet connections were the most frequently mentioned problems when using ICTs for their business (Figure 31). For peri-urban and rural respondents, the cost of usage was also mentioned. All these point to the need for reduced costs and improved infrastructure in the country, in addition to ICT training programs.

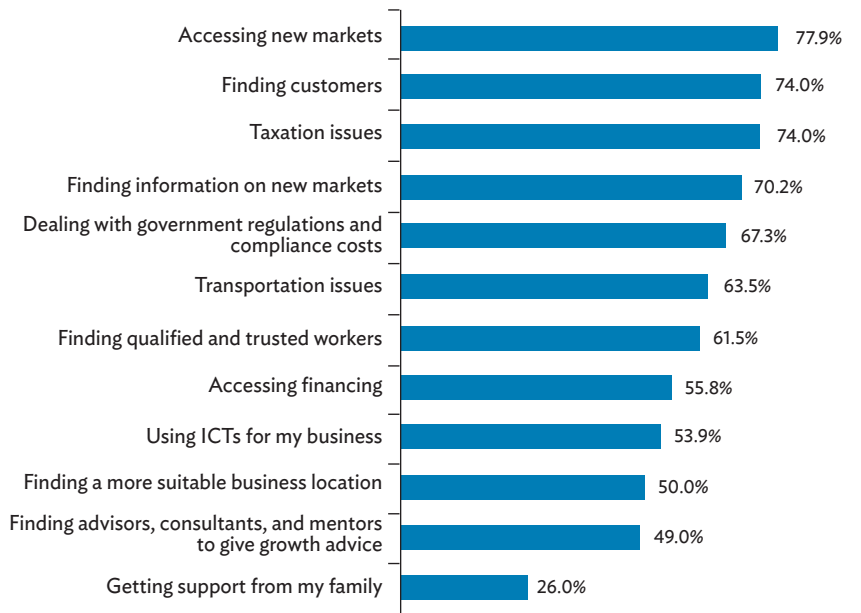
Women entrepreneurs from Uzbekistan are keen to improve their ICT knowledge. When discussing ICT skills training, they most frequently ask for topics such as how to use the internet for business, how to make better use of mobile phones for business, and how to promote products and services using the internet (Figure 32). This is in line with the previously mentioned top constraint for growing business (accessing new markets)—a useful guide for planning training programs.

Figure 30 Uzbekistan: Areas for Future Business Development



Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 62.

Figure 31 Uzbekistan: Perceived Constraints on Business Growth



ICT = information and communication technology.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 62.

Figure 32 Uzbekistan: Information and Communication Technology Skills Training

“Which specific computer/ICT skills training topics are you interested in?”



ICT = information and communication technology, SMS = short messaging service.

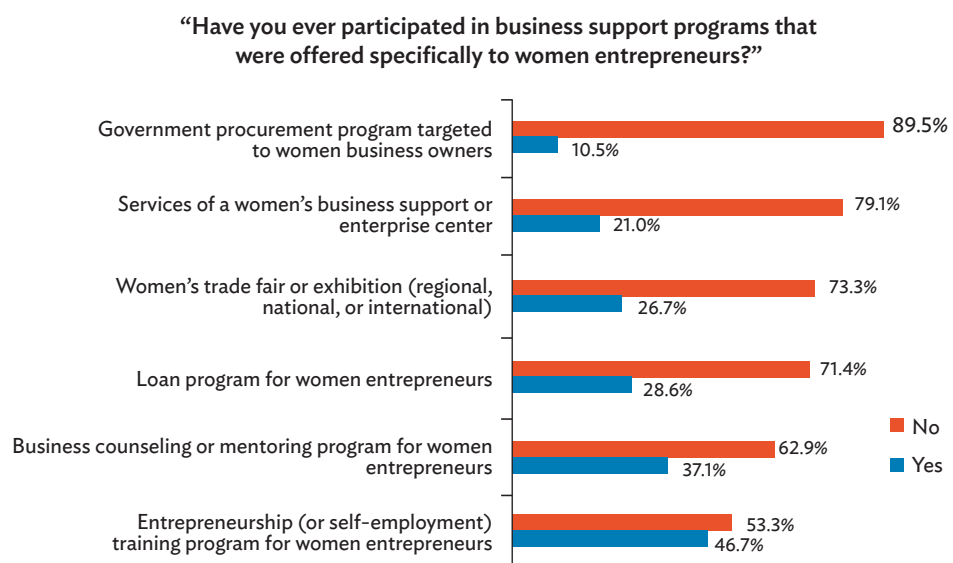
Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, questions 48 and 49.

As with the majority of women entrepreneurs in the other three countries, most women in Uzbekistan had never participated in business development support (BDS) programs for women entrepreneurs (Figure 33), for which they gave similar reasons: 72% said they did not know that such programs existed,⁶⁰ indicating that programs are not effectively promoted to women entrepreneurs in Uzbekistan.

When asked whether they would be interested in an information service that delivers useful information for women entrepreneurs by SMS to their mobile phone, 82% of respondents, regardless of location, said they would be. When asked how much they would be willing to pay per month for such a service, most respondents said they would prefer it free.⁶¹

When promoting programs and outreach to women entrepreneurs, it is important to know that most women entrepreneurs use television, newspapers, the internet, and word of mouth as popular sources of information regarding business-related matters (Figure 34). These channels would likely be the most effective for reaching them.

Figure 33 Uzbekistan: Participation in Business Support Programs for Women Entrepreneurs

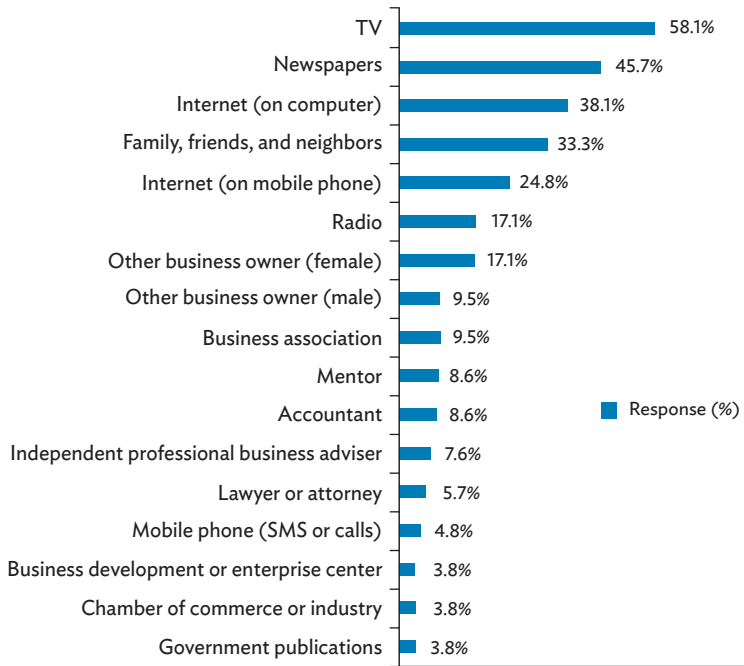


Note: Numbers may not add up to 100% due to rounding.
 Source: Data generated from Appendix 3: Women Entrepreneurs’ Interview Questionnaire, question 53.

⁶⁰ T. Nguyen. Detailed Analysis of Findings. p. 231.
⁶¹ T. Nguyen. Detailed Analysis of Findings. pp. 237–238.

Figure 34 Uzbekistan: Sources of Business-Related Information

“Where do you get most of your information on business-related matters?”



SMS = short messaging service.

Source: Data generated from Appendix 3: Women Entrepreneurs' Interview Questionnaire, question 44.

Information and Communication Technologies for Women's Entrepreneurship Development: Country Assessment

The assessment framework and methodology for information and communication technologies for women's entrepreneurship development (ICT4WED) of the International Labour Organization (ILO)/United Nations Conference on Trade and Development (UNCTAD)⁶² were used to collect extensive field data from each of the four countries being studied. The assessment was conducted over 6 months, between June and December 2013, with fieldwork undertaken in each country. Data were collected through a systematic review of relevant existing data and reports, 57 interviews with 115 key informants, 24 focus group discussions with 207 women entrepreneurs, and 60–80-minute surveys with 422 women entrepreneurs. The data were used to generate evidence-based recommendations for effective policies that meet women entrepreneurs' needs.⁶³

Kazakhstan has the best information and communication technology environment for women's entrepreneurship development by a significant margin. However, since all four countries scored relatively low, they all have ample opportunities for improvement

Figure 35 provides an overview of the results of the ILO/UNCTAD ICT4WED scoring, and indicates areas where there are opportunities for improving the information and communication technology (ICT) environment for women's entrepreneurship development (WED) in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan.

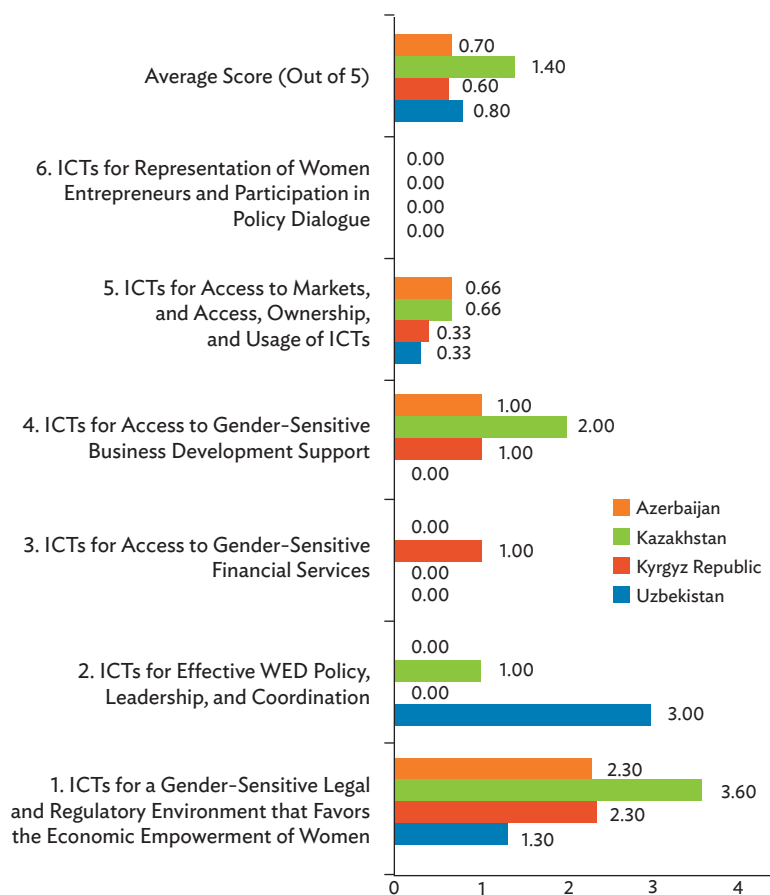
According to the results, Kazakhstan has the most favorable ICT environment for WED by a significant margin. However, given that the overall scoring is out of a total possible score of 5, all four countries scored on the low side, giving them ample opportunities to improve their ICT environment for WED. This is particularly true for areas such as "ICTs for representation of women entrepreneurs and participation in policy dialogue," and "ICTs for access to markets, and access, ownership, and usage of ICTs." In both areas, all four countries scored less than 1. "ICTs for access to gender-sensitive financial services" is another area in which all countries except Kazakhstan scored less than 1.

⁶² For more information about this assessment framework and methodology, see: UNCTAD. 2014. Empowering Women Entrepreneurs. http://unctad.org/en/PublicationsLibrary/dt1stict2013d2_en.pdf

The six conditions used in the methodology for assessing the extent to which ICTs are being leveraged effectively for women's entrepreneurship are: (i) a gender-sensitive legal and regulatory environment that favors the economic empowerment of women; (ii) effective WED policy, leadership, and coordination; (iii) access to gender-sensitive financial services; (iv) access to gender-sensitive business development support (BDS); (v) access to markets, and access, ownership, and use of technology; and (vi) representation of women entrepreneurs and participation in policy dialogue.

⁶³ Further information about the organizations approached for the key informant interviews can be found in Appendix 1. Appendix 2 contains information on the locations of the interviews in the urban, peri-urban, and rural areas. Appendix 3 is a sample of the questionnaire used in all four countries during the study. For the raw data gathered during the study, see: T. Nguyen. Matrix for Mapping Stakeholders; T. Nguyen. Detailed Analysis of Findings; T. Nguyen. Focus Group Summary.

Figure 35 Country Scores on the Six Framework Conditions for Information and Communication Technologies for Women's Entrepreneurship Development, as Set Forth by the International Labour Organization/ United Nations Conference on Trade and Development



ICT = information and communication technology, WED = women's entrepreneurship development.

Source: The data are generated from a combination of key informant interviews, focus group discussions, and questionnaires. See Appendix 1 for the list of organizations approached for key informant interviews. Appendix 2 contains information about the location of the focus groups in urban, rural, and peri-urban areas in the four countries. Appendix 3 is a sample of the questionnaire used in all four countries during the study. Further unpublished raw data from this consultation phase are found in T. Nguyen. Matrix for Mapping of Stakeholders by Theme for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan; T. Nguyen. Detailed Analysis of Findings from the Women Entrepreneurs Survey; T. Nguyen. Focus Group Summary for Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan.

Framework Condition 1: Gender-Sensitive Legal and Regulatory Environment

A gender-sensitive legal and regulatory environment enables women entrepreneurs to access and claim the same laws and rights as male entrepreneurs. It also ensures that specific laws that may relate to customary practice are clear so that women may benefit by starting and consolidating businesses in the formal economy.

In the legal systems of Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan, women have the same property and inheritance rights as men. Information on

A gender-sensitive legal and regulatory environment enables women entrepreneurs to access and claim the same laws and rights as male entrepreneurs

women's property and inheritance rights, and any procedural requirements to gain access to these rights are also available online in all countries except Uzbekistan. However, women can only carry out administrative tasks online to claim their property and inheritance rights as well as any procedures needed to gain access to these rights in Kazakhstan (Table 4).

Table 4 Condition 1: Information and Communication Technologies for a Gender-Sensitive Legal and Regulatory Environment that Favors Economic Empowerment of Women

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
(i) Labor Laws and Regulations				
Information on women's equal employment rights, labor laws, regulations, and compliance requirements are available online.	Yes	Yes	Yes	Yes
Women are made aware of equal employment rights, labor laws and regulations, and compliance/reporting requirements through several ICT channels: TV, websites, mobile phone, SMS.	Yes	Yes	Yes	Yes
Women can comply with labor laws, regulations, and compliance/reporting requirements online.	Yes	Yes	No	No
Women can submit complaints for redress online when their employment rights are violated.	No	Yes	No	No
Women can submit complaints through several ICT channels for redress when their employment rights are violated.	No	No	No	No
(ii) Business Registration and Licensing Regulations and Procedures				
Women can register a business without the legal requirement to have their husband's permission; information on how to do this is available online.	Yes	Yes	Yes	Yes
Women can register businesses online in an efficient, user-friendly process.	Yes	Yes	No	Yes
Government makes special efforts to ensure that women are made aware of business registration and licensing procedures through several ICT channels.	No	Yes	No	No
Business registration offices have women's desks. An online/mobile services alert system is available for easy tracking or reminding during the registration process.	No	No	No	No
Women can obtain a business license online for all types of businesses, including those types of businesses more traditionally started by women.	No	Yes	No	No
(iii) Property and Inheritance Rights				
Women have the same property and inheritance rights as men according to the laws of the country, and this information is available online.	Yes	Yes	Yes	Yes
Information on women's property and inheritance rights, as well as any procedural requirements to gain access to these rights are available online.	Yes	Yes	Yes	No
Women and men in urban and rural areas are made aware of women's property and inheritance rights through several ICT channels.	No	No	No	No
Women can carry out administrative tasks to claim their property and inheritance rights as well as any procedural requirements to gain access to these rights online.	No	Yes	No	No
Women and men have the same property and inheritance rights by law: these are enforced, and women can apply through several ICT channels for assistance with legal recourse to gain these established economic rights.	No	No	No	No

ICT = information and communication technology.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

1. Azerbaijan

In 2008, the Government of Azerbaijan, with International Finance Corporation support, introduced the “one-stop-shop” system for business registration, which significantly simplified the process for entrepreneurs to register a business, allowing it to be done within 3 days. Entrepreneurs can now use the Ministry of Economic Development's Electronic Portal of Permission⁶⁴ to apply for permits online. However, it is still not possible to obtain licenses for all types of businesses including those traditionally started by women, and it is still difficult for women to submit complaints either online or through other ICT channels when their employment rights are violated. Also, although women have the same property and inheritance rights as men and this information is available online, alternative ICT channels such as mobile phones have not been employed to make women, especially those in rural areas who may not have internet access, aware of those rights. Finally, it is not possible for women to carry out administrative tasks to claim these rights online, or to apply for means of redress when the rights are violated.

2. Kazakhstan

The National Commission for Women's Affairs, Family and Demographic Policy under the President of the Republic of Kazakhstan, is a consultative–advisory body set up to encourage economic equal opportunities for men and women. Although the legal and regulatory system in place is the best of the four countries being studied, there is still room for improvement in the mechanisms currently used to deal with women's complaints about employment violations, and for disseminating information about property and inheritance rights.

3. Kyrgyz Republic

ICTs are leveraged for the legal and regulatory environment of the Kyrgyz Republic to a lesser degree than in Azerbaijan and Kazakhstan. Since ICT is less integrated into the society as a whole, this is perhaps unsurprising. While information about labor laws is available online, it is not possible for women to use online facilities to comply with labor laws and regulations, and it is not possible for them to obtain licenses for all kinds of businesses. Neither can they make complaints about unfair employment treatment through ICTs. Finally, as with all of the countries studied, ICTs tend not to be used to promote awareness of women's property and inheritance rights.

However, at least two organizations are working to make legal information available to women: the Women Support Center⁶⁵ and The Forum of Women's NGOs of Kyrgyzstan.⁶⁶

4. Uzbekistan

At the time of conducting the research, women from Uzbekistan could not register businesses online in an efficient, user-friendly way.⁶⁷ Although they can carry out

⁶⁴ Government of Azerbaijan, Ministry of Economic Development. Electronic Information Portal on Permissions. <http://www.icazeler.gov.az/en>

⁶⁵ The Women Support Center. <http://www.wsc.kg/en/129>

⁶⁶ The Forum of Women's NGOs of Kyrgyzstan. <http://forumofwomensngos.kg/>

⁶⁷ According to the Ministry of Economy, and the State Committee for Communication, Informatization and Telecommunication Technologies of the Republic of Uzbekistan, online registration of businesses were to be introduced in early 2014.

parts of the tasks online, such as checking whether a company name they choose is available on the website of the State Statistics Committee and reserving the company name, and downloading all the documents required for registration and filling them out on the same website, the registration still needs to be completed in person at the district *hokimiyats* (governance bodies).

Women entrepreneurs in Uzbekistan are also unable to use ICTs to submit complaints about unfair treatment in employment; neither can they comply with labor laws and regulations online. As in the other three countries, ICTs are underutilized to alert women entrepreneurs to business registration and licensing procedures, or to keep them informed of their property and inheritance rights.

In summary, in all four countries, ICTs could be used to fill gaps in information, to enable a gender-sensitive legal and regulatory environment for women entrepreneurs. All four countries could make better use of ICTs to improve the provision of business, property, and inheritance information. In addition, although women can register a business online in all four countries, none of them provides a women's desk or an online one-stop-shop to deal with the particular issues women entrepreneurs face. Overall, complaints procedures could be improved with greater integration of ICT into the legal and regulatory structures.

Framework Condition 2: Women's Entrepreneurship Development Policy, Leadership, and Coordination

Women's entrepreneurship development aims to create jobs, empower women economically, and reduce poverty

WED is a key strategy that aims to create jobs, empower women economically, and reduce poverty. It is implemented by numerous ministries and includes social development, skills development, economic development, rural development and trade, and women's affairs. Clear policy, leadership, and coordination can improve the use of resources, and can facilitate the sharing of lessons learned and the emergence of policy recommendations that respond to specific needs. ICTs can be leveraged to increase the reach and effectiveness of the policy coordination body, and promote collaboration and cooperation, links, and active consultations.

Table 5 shows how the four countries fare under Condition 2 of the framework methodology, which focuses on effective leadership and implementation of WED policies, programs, and measures at the national level. A quick glance shows that none of the countries have managed to integrate ICT into WED. Kazakhstan is the only country with a WED-dedicated government website and Uzbekistan appears to be the only country that has managed to use ICT to consult with women entrepreneurs.

1. Azerbaijan

The main government agency advocating for women entrepreneurs' needs and issues is the State Committee for Family, Women and Children Affairs. The committee does not have a website that disseminates information for women entrepreneurs, although one is being planned. From time to time, the committee uses TV, radio, and their website, to disseminate policy-related information to women entrepreneurs. However, an organized mechanism that allows the committee to actively consult with women entrepreneurs, especially those in rural areas who do not have a chance to come to meetings and gatherings to be heard on issues that matter to them, appears to be missing. ICTs could be particularly useful in facilitating this.

Table 5 Condition 2: Information and Communication Technologies for Women's Entrepreneurship Development Policy, Leadership, and Coordination

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
There is a national focal point for WED within government that has a website with information on the organization and its activities.	No	Yes	No	No
The national focal point for WED within government uses several ICT channels to disseminate policy-related information to women entrepreneurs to ensure that the information reaches those in urban and rural areas.	No	Yes	No	No
The national focal point for WED within government uses the internet and websites to ease collaboration and cooperation as well as links with stakeholders.	No	Yes	No	No
The national focal point uses e-mail to actively consult with women entrepreneurs to identify their needs and issues.	No	No	No	Yes
The national focal point uses a combination of ICT tools to actively consult with women entrepreneurs including those in rural areas.	No	No	No	Yes

ICT = information and communication technology, WED = women's entrepreneurship development.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

2. Kazakhstan

The Government of Kazakhstan provides a national focal point for WED with a website giving information on the organization, its activities, and reports. Kazakhstan could consider using a combination of ICT tools (e.g., e-mail, mobile phones, radio, hotline) to actively consult with women entrepreneurs, including those in rural areas, and identify their needs and issues. Similar techniques could be used to enable them to collaborate with the government to increase cooperation between departments and projects.

3. Kyrgyz Republic

Although the Kyrgyz Republic does not score on any criteria under this condition, there have been some positive developments. The Ministry of Economy of the Government of the Kyrgyz Republic was in the process of developing a WED strategy but there seemed to be no centralized online resource that provides policy-related information to urban and rural women entrepreneurs. Despite that, however, ICTs appear to be used to enable women entrepreneurs, including those in rural areas, to provide feedback on their needs and issues.

4. Uzbekistan

As mentioned in the introduction, Uzbekistan seems to have successfully integrated e-mail and other ICT tools to communicate effectively with women entrepreneurs, including those in rural areas. Although it does not score on the other three criteria

The Women’s Committee of Uzbekistan has created a large countrywide network of support for women entrepreneurs, providing protection of women’s rights and legal interests, ensuring the efficiency of women’s public organizations, and further strengthening women’s socioeconomic status

in this category, it has, through the Women’s Committee of Uzbekistan (WCU),⁶⁸ which is chaired by the deputy prime minister of Uzbekistan, managed to create a large countrywide network of support for women entrepreneurs. The committee provides protection of women’s rights and legal interests, ensuring the efficiency of women’s public organizations, and further strengthening the socioeconomic status of women. Its mandate includes WED. The committee’s broad network of branch offices provides services and support through its head office, 208 provincial branch offices (including 14 regional and 194 city and district branch offices), which are further subdivided into 42,000 grassroots and/or community branch offices).

Showing its awareness of the importance of ICTs in enabling effective WED policy, leadership, and coordination, the committee is working to collaborate effectively with its branch offices and other government organizations through its website and e-mail.

Framework Condition 3: Gender-Sensitive Financial Services

Although all entrepreneurs, regardless of gender, face challenges in accessing capital and other financial products, women entrepreneurs (in particular those with little income, in rural areas, or operating in developing and transitioning economies) face attitudinal barriers as well as a mismatch in service provision for their business needs. Gender-sensitive financial services take into account women entrepreneurs’ specific needs while delivering services in an environment where gender bias is nonexistent. The outcome of this would ultimately be the equitable participation of women-owned enterprises in financial services.

ICTs can be leveraged to enable women entrepreneurs’ participation in generic financing programs, for example, by making complete information on the programs and loan application process readily available online, and enabling partial or full online loan applications. ICTs could also be used effectively for financing programs specifically targeted to women-led micro, small, and medium-sized enterprises (MSMEs), including alternative financial services suitable for micro enterprises. Examples of such alternative programs are making women-targeted credit (micro financing and commercial bank financing) and equity (seed and venture capital) programs accessible through ICT-enabled solutions such as mobile money. ICT-enabled financial literacy training, and educating women on credit, savings, and ways to maximize their chances of obtaining loans, could benefit women entrepreneurs, especially those in rural areas with limited access to information and financial literacy. Finally, using innovative approaches to assess borrowers’ financial risks such as ICT-enabled psychometric testing of their personal qualities to gauge their ability and willingness to pay back loans (instead of the traditional model of using collateral), could be extremely helpful to women entrepreneurs whose collateral, if it exists at all, tends to be of low value.

⁶⁸ Presidential Decree “On Increasing the Role of Women in State and Social Construction” dated 2 March 1995 resulted in the founding of the Women’s Committee and Presidential Decree “On Measures to Further Support the Activities of the Women’s Committee of Uzbekistan” dated 25 May 2004 further empowered the Women’s Committee.

Mobile money could make it easier and more secure for women to save money, or to receive money from family and friends. This is usually one of the main sources of financing for women-owned microenterprises in developing countries. Mobile money is used increasingly in developing countries, such as in the East African Community,⁶⁹ with encouraging results. Research has indicated that for small and micro businesses, mobile money saves time, makes logistics more efficient, allows for better record-keeping, and increases safety⁷⁰—factors that would benefit women entrepreneurs.

Mobile money saves time, makes logistics more efficient, allows for better record-keeping, and increases safety—factors that would benefit women entrepreneurs

1. Azerbaijan

Table 6 shows that gender-sensitive access to finance for women entrepreneurs seems to be limited in Azerbaijan. It appears that ICTs have not been used effectively to provide women entrepreneurs with information for accessing suitable financial programs or financial literacy training. The portal of the Ministry of Economy and Industry National Fund for Entrepreneurship Support⁷¹ gives information on the National Funds for Entrepreneurs, including online loan applications and the list of participating financial institutions. However, no financial literacy training initiatives that leverage ICTs through radio, TV, or mobile phones have been identified.

Table 6 Condition 3: Information and Communication Technologies for Gender-Sensitive Financial Services and Alternative Access to Finance

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
Financial institutions are implementing innovative ICT-enabled tools to allow women entrepreneurs access to finance without collateral.	No	No	Yes	No
Generic financing programs as well as tailor-made loans and financial service products are actively promoted to women entrepreneurs through a variety of ICT channels.	No	Yes	Yes	No
Both women-targeted credit and equity programs are accessible to urban and rural women through ICT.	No	No	No	No
A one-stop-shop website provides information on the different financing programs and options available for entrepreneurs, including those that are specifically for women entrepreneurs, with features that enable them to select the most suitable loans and links to banks and online loan applications.	No	No	No	Yes
Different ICT tools are used to increase women's financial literacy.	No	No	Yes	No

ICT = information and communication technology.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

⁶⁹ UNCTAD. 2012. *Mobile Money for Business Development in the East African Community: A Comparative Study of Platforms and Regulations*. Geneva. http://unctad.org/en/PublicationsLibrary/dt1stict2012d2_en.pdf

⁷⁰ UNCTAD. 2011. *Information Economy Report 2011*. p. 21 and 78.

⁷¹ The Republic of Azerbaijan Ministry of Economy and Industry National Fund for Entrepreneurship Support. <http://anfes.gov.az/>

2. Kazakhstan

Kazakhstan has created a system to promote programs and loans to women entrepreneurs through ICT. Although the DAMU Entrepreneurship Development Fund reported that only 30% of its clients are women,⁷² they do have special loan programs for women—for example, DAMU’s special financing program on conventional allocation of funds in second-tier banks for on-lending of female businesses for 2010–2015. The program involves local banks: Centercredit Bank, Eurasian Bank, Temirbank, Tsesnabank, and Delta Bank. Kazakhstan does not score on any other criteria in this section.

3. Kyrgyz Republic

The Kyrgyz Republic leverages information and communication technologies to give women access to finance and to increase their financial literacy through education about credit and saving

Beyond microfinance, few programs that give women entrepreneurs access to finance have been identified. However, the Kyrgyz Republic has managed to leverage ICTs in a number of ways to give women access to finance and to increase their financial literacy through education about credit and savings. Financial service products have been available to them, providing ways to increase the likelihood of getting credit; information about their rights and obligations as borrowers; and explanations of how banks and credit programs work. At present, however, there is no one-stop-shop website with information on the different financing programs and options available for entrepreneurs (including women entrepreneurs), with features that enable them to select the most suitable loans.

4. Uzbekistan

Although Uzbekistan scored only on the “one-stop-shop” website criteria (Table 6), interviews with key informants indicate that women entrepreneurs in Uzbekistan can gain access to gender-sensitive finance through a number of programs.⁷³ However, ICTs can still be used to improve access.

Women-targeted credit (micro financing and commercial bank financing) and equity (seed and venture capital) programs are accessible to women in urban and rural areas through ICT-enabled solutions. Banks and microcredit organizations, such as Mikrokredit Bank, provide downloadable loan application forms on their website, and Ipak Yuli Bank is planning to provide online loan applications on its new website. The bank also reported having a call center where women can get information. Information on loans is also advertised through TV, radio, and on the bank’s website.

⁷² Key informant interview. DAMU Entrepreneurship Development Fund. 13 June 2013. See Appendixes 1 and 2 for further information.

⁷³ Uzbekistan implements several year-long national programs. The State Program for 2013, “The Year of Wellbeing and Prosperity” (Section 7 of the Program), has provisions that facilitate women entrepreneurs’ access to preferential loans. The project entitled “Involving Women into Entrepreneurship to Ensure Wellbeing and Prosperity of Families” provided preferential micro-loans to 5,000 women farmers and entrepreneurs. Foreign capital was provided for loans to women by the International Development Association, GIZ (German Savings Bank), the World Bank, UNDP, and UNWOMEN. Mikrokreditbank, Women’s Committee, and UNWOMEN are implementing the second phase of their project “Economic Empowerment of Women” to provide loans for start-up capital to women. The Social Initiatives Support Fund has approved 5,000 applications and business proposals of women entrepreneurs and women farmers for preferential micro-loans so far in 2013. All commercial banks are raising awareness in communities on how to access loans, and the kinds of loans that exist for different types of businesses, including those preferred by women.

Framework Condition 4: Gender-Sensitive Business Development Support

Business development support (BDS) includes advisory services, mentoring, coaching, information, entrepreneurship, and management training. Market-driven BDS that is gender-sensitive, accessible, and relevant to the needs of women entrepreneurs can enable women-led businesses to be sustainable, competitive, and provide decent employment. However, women entrepreneurs' uptake of BDS is low. In managing their businesses, they often face obstacles related to balancing domestic and business responsibilities, mobility, and time management because of their roles, lack of self-confidence, and problems arising from other people's negative attitudes to their capacity as entrepreneurs. Many of these issues are not addressed in mainstream BDS provision.

ICTs are being used to enable women's access to mainstream BDS, and to make mainstream BDS more sensitive to women entrepreneurs' needs by promoting and making programs available through a variety of ICTs such as radio, mobile phones, and online delivery (Table 7).

Women entrepreneurs often face obstacles—balancing domestic and business responsibilities, mobility and time management issues, lack of self-confidence, and the negative attitudes of others—that are not addressed by mainstream business development support

1. Azerbaijan

Since Azerbaijan scores on only one of the assessment criteria, ICTs appear not to be used to their full potential for enabling women access to BDS and for BDS providers to deliver ICT access to women entrepreneurs.

The Baku Business Training Center (BBTC) within the Ministry of Economic Development provides training, consulting, marketing services, distance training courses, and business-related educational services for entrepreneurship

Table 7 Condition 4: Information and Communication Technologies for Gender-Sensitive Business Development Support and Flexible Business Development Support for Women Entrepreneurs

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
BDS providers offer courses and services that can be accessed through the internet.	Yes	Yes	No	Yes
BDS providers offer courses and services that are accessible through several ICT channels.	No	No	No	No
Initiatives are in place to gender-sensitize and gender-mainstream BDS organizations and create broader awareness among women entrepreneurs of their services, including through the use of ICTs and businesswomen's networks.	No	Yes	No	No
A national system of business support is organized for women entrepreneurs with flexible access for women entrepreneurs through a variety of channels.	No	No	No	No
A one-stop-shop website with all related resources and services is available for women entrepreneurs, actively promoted to urban and rural women entrepreneurs through various ICT channels.	No	No	No	No

BDS = business development support, ICT = information and communication technology.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

development, but none specifically target women entrepreneurs. A BBTC representative said that they did notice that women entrepreneurs' participation in their courses was significantly less than that of men, and so they became interested in developing courses for women entrepreneurs.

Women entrepreneurs do not participate in training mainly because they are unaware of them. These findings are borne out by reality in Azerbaijan. There appears to be no organized national system of business support for women entrepreneurs accessible through a variety of ICT channels. The Ministry of Economic Development does have a national system of business support for entrepreneurs that is likely to benefit from better promotion to women entrepreneurs, as the majority of those interviewed were not aware of its hotline or available support.

2. Kazakhstan

DAMU has mobile entrepreneurship support centers, online webinars, and business connection programs that assist SMEs in finding partners overseas. These initiatives benefit women entrepreneurs, but are not specifically targeted at them

Of the four countries being studied, Kazakhstan fared best in its use of ICT to support women entrepreneurs and BDS. DAMU has initiatives to provide training and support for entrepreneurs with flexible access to its services. For example, it has mobile entrepreneurship support centers, which are buses that take consultants to rural areas. It has online webinars, some of which include prerecorded videos. Business connection programs assist SMEs in finding partners overseas. These initiatives benefit women entrepreneurs, but are not specifically targeted at them, and the full range of ICT tools does not appear to be used. This could exclude rural women entrepreneurs who have no e-mail or internet access.⁷⁴

A national system of business support has been organized for women entrepreneurs, but there is no one-stop-shop website for women entrepreneurs that is accessible through a variety of ICT tools.

3. Kyrgyz Republic

In the Kyrgyz Republic, some BDS providers offer courses and services that can be accessed through the internet. However, given the poor internet coverage in the Kyrgyz Republic, it is important that other ICTs be used. A national system of business support for women entrepreneurs providing access through a variety of channels, including a one-stop-shop website and a hotline, is needed.

4. Uzbekistan

Several stakeholders in Uzbekistan provide training workshops for women entrepreneurs, such as the Women's Committee of Uzbekistan (WCU), the Central Bank of Uzbekistan, and the Joint-Stock Bank "Mikrokreditbank." The Chamber of Commerce and Industry holds workshops for women and female graduates of vocational schools who wish to start their own business. The Women's Committee, along with the Chamber of Commerce and Industry, also provides women entrepreneurs with training on how to obtain preferential loans, how to register a small or family business, and how to optimize a family budget.⁷⁵ Similarly, banks are providing training workshops for women entrepreneurs on access to finance. However, ICTs have not been used effectively in ensuring that women entrepreneurs

⁷⁴ Key Informant Interview. DAMU. 13 June 2013. See Appendix 1.

⁷⁵ Key Informant Interview. Women's Committee of Uzbekistan. 16 July 2013. See Appendix 1.

have flexible access to these workshops so that they can offset their constraints of limited mobility and time.

A one-stop-shop website that has all the related resources and services for women entrepreneurs is not yet available. Although the Chamber of Commerce and Industry has electronic information kiosks in local government offices in 15 regions giving information on organizing and doing business, women entrepreneurs still need to travel to get to them, which may be inconvenient or not possible given women's mobility constraints. It would be markedly easier for them to have access from a local internet café, for example. In a key informant interview, the WCU indicated that it was planning to create a web portal specifically for women entrepreneurs. This website could become the one-stop-shop needed. It will be important to ensure that the website is promoted actively to women entrepreneurs in rural and urban areas through the information channels that these women currently use.

Although the Chamber of Commerce and Industry has an internet portal in Uzbek and Russian that gives information relating to doing business in Uzbekistan,⁷⁶ it seems that this portal is not promoted to women entrepreneurs. More than 40% of the women entrepreneurs surveyed for the study were members of the Chamber of Commerce and Industry, but few could recall the website. The Chamber of Commerce and Industry says that they have developed mobile applications that would be useful to entrepreneurs, such as the mobile-based payment system and an application for accessing information on loans provided by banks (Uzsat),⁷⁷ but do not yet have the resources to promote them.

Framework Condition 5: Effective Use of Information and Communication Technologies for Women Entrepreneurs

Women entrepreneurs need access to markets and ICT to strengthen their entry into growth sectors and new market opportunities. Women entrepreneurs tend to remain concentrated in low-entry, low-exit, and low-yield markets. Supporting their access to growth sectors can help them create jobs, and be competitive and sustainable.

ICT tools such as computers, the internet, or mobile phones can be used in innovative ways to enable women to gain information on the export market, and to access new export markets, including marketing and selling their products and services overseas (e.g., micro work or business process outsourcing services via the internet). In this context, the availability of electronic payment systems that enable micro businesses and individuals to easily and affordably receive overseas payment may have an important implication for women entrepreneurs' export promotion, given that the majority of them own micro businesses or are in informal sectors of the economy.

Governments in many countries establish public procurement contracting goals to open up procurement markets to MSMEs. ICTs can be used in innovative public procurement contracts to develop women-owned enterprises and reduce poverty (e.g., outsourcing the state government's information technology (IT)-related

Women entrepreneurs tend to remain concentrated in low-entry, low-exit, and low-yield markets. Supporting their access to growth sectors can help them create jobs, and be competitive and sustainable

⁷⁶ Chamber of Commerce and Industry. businessinfo.uz

⁷⁷ Key Informant Interview with the Chamber of Commerce and Industry of Uzbekistan. 18 July 2013.

services to women-owned enterprises). In an effort to reduce poverty through WED, the state government of Kerala, India, outsourced IT training, data entry, digitization, and PC assembly and maintenance to enterprises formed by women from below-poverty-line families. Assessment of the initiative found positive effects on the women entrepreneurs in the approximately 200 women-owned enterprises created under the scheme, including the women's increase in financial, human, social, and political capital as well as physical assets.⁷⁸

MSMEs, particularly women-owned enterprises, tend to struggle to implement new forms of information technology, since they may lack awareness of its application or access to training on the use of ICT tools. Furthermore, women often lack access to the required resources, such as finances and experts, to invest and learn how to use these tools effectively. Although there are anecdotal examples of women using certain tools that are appropriate to their knowledge level and business needs, reports show that ICTs have largely remained an untapped opportunity for women entrepreneurs. In low- and middle-income countries, women are found to be less likely to own mobile phones than men⁷⁹ and less likely to use mobile phones for business⁸⁰ (Table 8).

Table 8 Condition 5: Information and Communication Technologies for Women Entrepreneurs' Businesses, for Their Access to Markets Including the Export Market and Supply Chain, and for Business Start-Up and Growth

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
(i) Women entrepreneurs have access, ownership, and effective usage of ICTs for business				
Women entrepreneurs own mobile phones that give them access to the internet at home or at work.	Yes	Yes	Yes	Yes
Flexible, effective, hands-on capacity-building courses on using ICT for business are available online and actively promoted to women entrepreneurs through a variety of channels.	No	No	No	No
"Helpdesk" support for women entrepreneurs to use ICTs in their business is easily accessible through a variety of channels.	No	No	No	No
Women-friendly public internet access points are available throughout the country, including rural areas.	No	Yes	No	No
Affordable broadband coverage in 100% of the country	No	No	No	No

continued on next page

⁷⁸ UNCTAD. 2010. *Information Economy Report 2010: ICTs, Enterprises and Poverty Alleviation*. Geneva. p. 53.

⁷⁹ GSMA Development Fund and Cherie Blair Foundation for Women. 2012. *Women and Mobile: A Global Opportunity: A Study on the Mobile Phone Gender Gap in Low and Middle-Income Countries*. Available at http://www.cherieblairfoundation.org/wp-content/uploads/2012/07/women_and_mobile_a_global_opportunity.pdf

⁸⁰ P. Ilavarasan and M. Levy. 2010. *ICTs and Urban Microenterprises: Identifying and Maximizing Opportunities for Economic Development; Final Report*. International Development Research Center. <http://idl-bnc.idrc.ca/dspace/bitstream/10625/44402/1/130834.pdf>

Table continued

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
(ii) ICTs are being leveraged to enable women entrepreneurs' access to markets including the export market and supply chain				
A variety of ICT channels are leveraged to deliver capacity-building programs, including training women entrepreneurs to use ICTs to access markets, including export markets and/or supply chain linkage.	No	No	No	No
A variety of ICT channels are leveraged to ensure that women-owned enterprises are aware of export readiness, supply chain linkage programs, and capacity-building programs.	No	No	No	No
Supply chain initiatives for women-owned enterprises are being implemented across many sectors in which women-owned enterprises are dominant, and in different parts of the country. The initiatives integrate the use of multiple ICT tools to facilitate access nationwide and to increase participation opportunities for women-owned enterprises in urban and rural areas.	No	No	Yes	No
ICTs are used to promote export opportunities and seek the participation of women-owned enterprises in government-sponsored trade missions/fairs.	No	No	No	No
There is a comprehensive national export promotion program for women entrepreneurs. ICTs are used to raise awareness of, and enable women entrepreneurs to access the program.	No	No	No	No
(iii) ICTs are being leveraged for women to start and grow businesses especially in profitable, high-growth sectors including the ICT sector				
E-procurement is available, with online training courses on how to access public procurement opportunities. Both e-procurement opportunities for women and the training courses are actively promoted to women entrepreneurs through SMS, mass media, and internet/e-mail.	No	Yes	No	No
Special financing programs enable women entrepreneurs to purchase new ICT equipment or funds that support women-owned enterprise start-ups in businesses in the ICT sector.	No	No	No	No
Campaigns showcasing success stories of women entrepreneurs who leverage ICTs to grow their current business, or start new businesses in profitable, high-growth sectors including the ICT sector.	No	No	No	No
Women entrepreneurs are targeted for inclusion in technology upgrades, modernization programs, and programs focused on integrating ICT-enabled solutions.	No	No	No	No
Initiatives are being implemented to actively encourage women entrepreneurs to start businesses in higher-growth and innovative sectors of the economy, including the ICT sector.	No	No	No	No

ICT = information and communication technology, SMS = short messaging service.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

1. Azerbaijan

ICTs do not appear to be leveraged sufficiently to enable women entrepreneurs' access to export markets and supply chains, since the country only scores on the first criteria of the condition—ownership of mobile phones. The vast majority of women entrepreneurs do not have a website for their business although many expressed interest in having one, and many are not selling or promoting their products or services using ICTs.

Although the government is focusing on the ICT sector, women do not appear to be able to take advantage of the opportunities for business start-ups in this area. There are also no special initiatives to address this gap by encouraging women to start and grow businesses in the ICT services sector. For example, Azercell—Barama Innovation Center⁸¹ is an ICT incubator founded by Azercell in December 2009. The key purpose of the project is to support young talented people and develop ICT by encouraging individual entrepreneurship for economic development in the country. The Barama Incubation Center is dedicated to commercializing innovative ideas by providing mentorship, infrastructure, and networks. Women participants there are significantly fewer than men. Of 932 start-up ideas sent to Barama since its launch in 2009, only 23% (215 ideas) were sent by women. Of the total number of Barama members (37), only 9 are women. To date, Barama has organized eight competitions, and 1,243 people have participated in them, of whom women make up only 16% of the participants. It also seems that e-procurement, with training courses on how to access public procurement opportunities, is not available online.

2. Kazakhstan

Although Kazakhstan fares only slightly better under Condition 5, having wide mobile phone usage and a system of e-procurement in place, women entrepreneurs are already using ICTs for business, including using mobile phones to access the internet. Women-friendly public internet access points are available throughout the country. However, ICT-enabled hands-on capacity-building business courses are needed. Affordable broadband coverage is not yet available across all of the country.

3. Kyrgyz Republic

Although the vast majority of women entrepreneurs from the Kyrgyz Republic own mobile phones, access to computers and the internet is limited. It also appears that women entrepreneurs use only a few of the capabilities of their mobile phones, computers, and the internet. Affordable broadband coverage needs to be accessible across all of the country.

Community-Based Tourism in the Kyrgyz Republic is an effective initiative, which combines mobile phones and a website, and enables women entrepreneurs to operate guesthouses.⁸² However, no other initiatives have been identified where ICTs are being leveraged to enable women entrepreneurs' access to markets, including export markets and supply chains.

⁸¹ Barama–Azercell Project. <http://www.barama.az/lang.en/>

⁸² The Kyrgyz Community-Based Tourism Association. <http://www.cbtkyrgyzstan.kg>

4. Uzbekistan

Although many women entrepreneurs own mobile phones and have reasonable access to the internet, their use of ICT tools is limited to basic functionalities. Survey findings strongly indicated a need for women entrepreneurs to be trained in how to use ICT tools effectively for business.

The lack of an efficient e-commerce payment system that allows e-commerce sites to accept international payments affects women entrepreneurs' ability to access international markets. In interviews and focus group discussions, women entrepreneurs noted that even if they have a website selling handicrafts and received a good number of orders, they would need to be registered with the Ministry of Foreign Affairs and with a bank to receive any payment in US dollars. During focus group discussions, many participants said that these procedures were so cumbersome that they had simply given up.

Initiatives that actively encourage women entrepreneurs to start businesses in higher-growth and innovative sectors of the economy such as ICT (e.g., start-up incubation program for women-owned enterprises) are not being implemented. This is definitely a missed opportunity, as women appear to be very interested in ICT-related opportunities. According to the Ministry of Labor and Social Security, at the ministry's national training center in Tashkent, where unemployed people can undertake 7-month programs and be trained in machine building, car services, and ICTs, 80% of participants in the ICT stream were women. However, as the training center is in Tashkent, it is not possible for women in rural or peri-urban areas to participate. Initiatives like this need to be flexible to provide greater access for women.⁸³

The lack of an efficient e-commerce payment system that allows e-commerce sites to accept international payments affects women entrepreneurs' ability to access international markets

Framework Condition 6: Use of Information and Communication Technologies in Women Entrepreneur's Participation in Policy Dialogue

Women entrepreneurs' active participation in policy discussions affecting their businesses is essential. ICTs could be leveraged to give women a "voice" and be represented in mainstream business/sector associations (e.g., through supporting remote/online participation in meetings). ICTs could be used to increase the presence of women entrepreneurs' associations and networks, enabling them to engage and interact with all members, including those in rural areas through e-mail and online discussion groups, social media, call-in radio programs, and SMS alerts and campaigns. Finally, ICTs could be used to capture and share concerns, and coordinate advocacy initiatives, enable representation, and influence women entrepreneurs in public-private sector policy dialogue. None of the countries in this study performed well under this criteria, suggesting much scope for development in this area (Table 9).

⁸³ Key Informant Interview. Ministry of Labor and Social Security. 19 July 2013.

Table 9 Condition 6: Information and Communication Technologies for Representation of Women Entrepreneurs and Participation in Policy Dialogue

	Azerbaijan	Kazakhstan	Kyrgyz Republic	Uzbekistan
Women in urban and rural areas can join women entrepreneur associations and networks through several ICTs.	No	No	No	No
Women entrepreneur associations and networks are actively using multiple ICT channels to attract new members, including in rural areas.	No	No	No	No
Members of women entrepreneur associations and networks can participate in the activities of associations and networks through several ICT channels.	No	Yes	Yes	No
Several ICT channels are routinely used by associations to solicit and capture inputs from its members.	No	No	No	No
ICTs are regularly utilized to ensure women's voices are heard.	No	No	No	No

ICT = information and communication technology.

Source: Data generated from key informant interviews, focus group discussions, and detailed questionnaires (Appendixes 1–3).

1. Azerbaijan

Although several organizations represent women entrepreneurs and participate in policy dialogue on their behalf, none appear to use ICT consistently and effectively. Azerbaijan, as with Kazakhstan and Uzbekistan, did not score at all on any of the criteria in this assessment area. While there appears to be a strong interest in how ICTs could be leveraged more effectively in supporting women entrepreneurs, no active measures have yet been taken to implement change.

Currently, members of women entrepreneur associations and networks cannot use ICT to participate in the activities of associations and networks.

2. Kazakhstan

Two main organizations—the Union of Women Entrepreneurs of Kazakhstan and the Kazakhstan Business Women's Association—represent women entrepreneurs in Kazakhstan.

ICTs are not leveraged effectively to represent women entrepreneurs and encourage their participation in policy dialogue. As mentioned above, Kazakhstan scored in only one criterion—members of women entrepreneur associations are able to participate in activities via ICT channels. However, the networks of women entrepreneur associations are not actively using the various ICT and radio channels to attract new members, including those who live in rural areas, and the associations do not routinely use ICTs to solicit and capture feedback from members.

3. Kyrgyz Republic

In the Kyrgyz Republic, the organizations representing women entrepreneurs that were identified during the study,⁸⁴ use ICTs in a number of formats—Facebook, phone calls, and radio—to reach out to women entrepreneurs. However, poor internet access restricts their reach. The organizations that use phone calls and radio cited problems with limited capacity, preventing them from reaching out to and serving a larger population, and getting feedback from women entrepreneurs.

ICTs are also not being used to make it easy for urban and rural women to join associations and networks for women entrepreneurs (for example, membership registration via a mobile phone application). ICTs are not used to ensure that women's voices are heard through remote and online participation in meetings or solicitation of their feedback. Based on the interviews with associations, the constraint seemed to be their capacity to set up and operate such a service.

4. Uzbekistan

As with Azerbaijan, Uzbekistan did not score in any of the criteria in this section, even though it has a strong representative body for women entrepreneurs, with a wide national reach that provides useful services for women. The organization is the Business Women's Association of Uzbekistan, one of the first national women's nongovernment organizations (NGOs) in Central Asia, with 14 regional and 96 district branches. It has representation in 178 districts and over 12,000 members. The organization provides capacity building for women, consulting services, research and publishing activities for NGOs, assistance to businesses in receiving credits and loans, and lobbying and advocacy services.

The organization has a website, and information centers that allow women entrepreneurs to call in. They also hold forums and roundtables for women entrepreneurs and use phone calls and short messaging service to send information to members about these events. Potential members can call by phone to apply for membership.

⁸⁴ Women Entrepreneurs Support Association of the Kyrgyz Republic (WESA). http://www.unwomen-eeca.org/cd_en/5_1_eng.swf; The Women's Forum "Kurak"; and the Business Club of Women Entrepreneurs.

Recommended Actions

This section provides practical cross-country and country-specific recommendations for how information and communication technologies (ICTs) could be leveraged to address the gaps identified in the report and to improve the conditions for women's entrepreneurship development (WED) in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan.

Cross-Country Recommended Actions

1. Campaigns to raise awareness of new information and communication technology-enabled business opportunities for women entrepreneurs

Information and communication technology-enabled business opportunities are available to women regardless of the nature or location of their businesses

As illustrated throughout the report, women across all four countries are concentrated in low-growth, low-profit sectors. Regardless of the nature or the location of the businesses, however, there are diverse ICT-enabled business opportunities for women such as freelancing and professional services, e-commerce, community-based tourism, and ICT-service provision (e.g., online marketing, website design, helpdesk support).

The Kyrgyz Community-Based Tourism Association⁸⁵ is a good example of a company that has successfully used ICTs in their business. They have been able to create business opportunities for women in rural and remote areas who do not have direct access to the internet, but do have mobile phones. This allows them to be connected to the association, which uses a combination of tools, including the internet, to market and manage homestay services for the women entrepreneurs.

However, the vast majority of women entrepreneurs in the countries being studied, and the majority of organizations working in women's economic empowerment are unaware of such opportunities. They are often equally unaware of possible support and programs that are already available such as training, financing, mentoring, and BDS. Public awareness campaigns that use ICTs such as TV, radio, mobile phones, and the internet to alert women entrepreneurs to such programs could be effective. Potential implementing partners could include WED focal points in the government (e.g., the State Committee for Family, Women and Children Affairs of the Republic of Azerbaijan), women entrepreneur associations, NGOs working in women's economic empowerment, BDS suppliers, universities, and vocational schools.⁸⁶

⁸⁵ The Kyrgyz Community-Based Tourism Association. <http://www.cbtkyrgyzstan.kg/index.php/en/>

⁸⁶ For details of stakeholders in each country, see Appendixes 1 and 2, and T. Nguyen. Matrix for Mapping Stakeholders.

2. E-commerce for women entrepreneurs

One of the forms of support most frequently requested by women entrepreneurs who took part in the study was learning how to sell their products and services online. Having limited access to markets remains one of the key issues constraining their growth. Even in Kazakhstan, which appears to be the most advanced country in ICT for WED, women entrepreneurs in focus groups expressed their wish to set up websites for their companies, but had no idea how to do it themselves and believed it would be too expensive to have a local company develop it for them. While online marketplaces or online service providers could set up online stores for free or for a small fee, women entrepreneurs were either unaware of these services or did not know how to use them. To bridge this gap, practical, hands-on programs that help women set up online “store fronts” to sell products or services in either local or the international marketplace are needed.

Helping women entrepreneurs set up an online presence can expand their market reach to regional and international markets. By capitalizing on the Central Asia Regional Economic Cooperation (CAREC) Program,⁸⁷ women entrepreneurs could benefit from the increased trade and tourism that it brings.

Programs that help women set up an online business can employ pre-packaged, e-learning modules that are delivered in face-to-face or online-only modes. These can be tailored to meet the specific requirements and concerns of each country (for example, the most appropriate platform for selling online, customized requirements for fulfilling orders, the most appropriate payment systems for receiving money, or the most appropriate channels for promoting the products or services) (Box 1).⁸⁸ Pre-packaged modules allow for cost-effective delivery of content, and enable a degree of quality control. Face-to-face or online-only modes of delivery give women entrepreneurs a choice. They can participate in the programs in a purely online, self-directed mode with a local hotline to provide them with assistance and troubleshooting when needed. This enables women entrepreneurs with limited time or mobility to participate. Face-to-face modes using online material will involve women entrepreneurs in setting up online selling with the help of a local agent. This local agent could be a women’s association, a training center, an information center, an internet café or other public internet access point, or even a network of specially trained agents. In rural areas, local agents could even provide a “full service” module, whereby the agent follows module guidance to set up an online presence for the woman entrepreneur and helps her manage it. This would be particularly useful when the woman does not have internet access but only mobile phone access. The “full service agent” could set up her online presence and communicate with customers through the internet on her behalf, and send her SMS messages, alerting her to complete the transactions.

Helping women entrepreneurs set up an online presence can expand their market reach to regional and international markets

⁸⁷ The Central Asia Regional Economic Cooperation, or CAREC Program is a partnership of 10 countries (Afghanistan, Azerbaijan, Kazakhstan, the Kyrgyz Republic, Mongolia, Pakistan, the People’s Republic of China, Tajikistan, Turkmenistan, and Uzbekistan). They work together to promote regional cooperation in four priority areas: transport, trade facilitation, energy, and trade policy. <http://www.adb.org/countries/subregional-programs/carec>

⁸⁸ Depending on the country, different electronic payment methods are available for online freelancers on marketplaces such as Elance.com (Box 1). While freelancers based in Uzbekistan cannot open an account through PayPal, they can open an account with Skrill, another online payment system. They can receive their payment for their work on O-Desk into their Skrill account in US dollars, and also withdraw the money.

Box 1 Online Outsourcing Service: Business Opportunities for Women on Elance.com

Online outsourcing sites like Elance.com present unprecedented opportunities for women in developing countries to work from home, reaching domestic and international clients with a wide range of professional services, ranging from those that require basic training, such as data entry, to highly specialized training like IT programming and law.

Philippines-based university librarian Sheila Ortencio used to earn \$1.50/hour and struggled to pay for food and child care. Within 4 years of working as a freelancer on Elance, cataloguing e-books online and earning \$8.50/hour, she was able to save enough money to buy properties, including a condominium in the capital, Manila.^a

Opportunities like those Sheila has access to are available to women in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan, and could be especially suited to them given their literacy rate and educational achievements. A search on Elance.com shows a small group of women in these countries already taking advantage of these opportunities. They have access to jobs posted locally by companies based in Kazakhstan and Azerbaijan. Research undertaken in October 2013 showed a total of 6,491 jobs posted by Russian companies with an average budget of \$1,822. For those who speak English, there were 2,018,565 jobs posted by companies based in the United States with an average budget of \$2,008. Even in Uzbekistan, where it is harder to find jobs posted by companies in the country, a search returned 312 Uzbekistan-based freelancers with earnings of up to \$55/hour for information technology and programming jobs.

IT = information technology.

^a Reuters. 2012. Global Army of Online Freelancers Remakes Outsourcing Industry. October. <http://www.reuters.com/article/2012/10/10/us-asia-freelance-idUSBRE8991MY20121010>

Source: Elance. <https://www.elance.com/>

A technical assistance project could be set up to develop and coordinate all aspects of the scheme from designing the content of the pre-packaged, localized program, to setting it up and training local providers. The existing networks of local businesswomen's associations, local training centers, and BDS providers could be used to run and promote the program. Sustainability could be achieved through working in partnership with the local agent to develop an appropriate business model for the service. For example, the program could become one of the services offered by the businesswomen's association for a fee, or could be a course offered in the portfolio of the local training center, or a service offered at the internet café or public access point for an affordable fee. Interviews and focus group discussions with women entrepreneurs across all four countries indicated that women entrepreneurs are willing to pay a fee for online services provided that the services are practical and useful to them.

Information and communication technology-enabled businesses—such as online business services and tourism with online bookings—are excellent opportunities for women, including those in rural areas, to participate in a sector with growth potential

3. Information and communication technology-enabled mentoring program for women entrepreneurs to grow successful businesses in the information and communication technology sector

ICT-enabled businesses, such as online business services and tourism with online bookings, represent an excellent opportunity for women, including those in rural areas, to participate in a sector with growth potential. This is especially relevant, because the CAREC transport infrastructure in this region is expected to facilitate tourism and trade, and this will, of course, include e-commerce. However, as online businesses and ICT-enabled businesses are a new field, ongoing support is essential, and mentoring programs with a duration of 6 months to a year provide a good structure for ensuring women entrepreneurs' growth and business success.

While mentoring can be a powerful learning experience for women entrepreneurs, the reality of running a business means that without proper training and a structure, the mentor and mentee may not end up interacting effectively. A structured, focused mentoring program with training and support materials for mentors and mentees gives them a chance of success. The program could consist of face-to-face workshops in multiple locations where mentors and mentees receive training and meet regularly, via ICT-enabled interactions to enable women in peri-urban and rural areas to participate. Mentors could be women owners of ICT-enabled businesses, or at the beginning of the program, mentors could be trained program staff. Subsequently, program alumni who manage successful businesses can then become a new group of mentors. Online, pre-packaged content could be used for mentors and mentees for training prior to undertaking the program. Support for mentors, including provision of a knowledge base and access to technical assistance to do their job effectively would be needed. The program could be implemented with local stakeholders who are involved in BDS services for women entrepreneurs, including local ICT incubators or BDS suppliers and women entrepreneurs' associations; ideally, this would involve those with a network, reaching outside the urban areas.⁸⁹ This model has been used successfully elsewhere; a helpful case study is the Cherie Blair Foundation for Women (Box 2).

Box 2 The Cherie Blair Foundation for Women: Mentoring Women in Business Programme

The Mentoring Women in Business Programme of the Cherie Blair Foundation for Women uses an online platform to match women entrepreneurs in developing countries with male or female mentors in developed countries. This allows them to work together for 12 months to achieve specific business goals including one-on-one coaching and attending webinars and using the knowledge base support provided by the online platform. The platform was designed and developed by Google, and the ongoing administration of the program is done by the foundation. According to the foundation, an independent evaluation of the program by the mentoring experts found that the mentoring program resulted in benefits for both mentors and mentees.

Source: Mentoring Women in Business Programme. <http://www.cherieblairfoundation.org/mentoring/>

4. SMS-based information alert service for women entrepreneurs

The majority of women entrepreneurs surveyed said they would be interested in a service that delivers useful information to their mobile phones by short messaging service (SMS). One of the key issues for women's entrepreneurship associations and organizations that have services useful to women entrepreneurs—organizations with training programs, ministries and organizations, and financial institutions with special financing programs—is how best to disseminate information to women entrepreneurs, especially those in rural and peri-urban areas and how to reach them in a cost-effective manner. Although mobile phones have a high penetration rate in the countries being studied, and all women can read SMS on basic phones, it is surprising that access to information remains a key unmet need for women entrepreneurs in rural areas. SMS-based information alert services could be set up to address this need and enable women's business associations and government focal points to send key information directly to women entrepreneurs. This would be especially effective in rural areas and would allow women to leverage the opportunities of the existing SMS-based infrastructure and services, and mobile phone penetration.

A structured, focused mentoring program with training and support materials for mentors and mentees helps them interact effectively

⁸⁹ Further information about specific stakeholders in each country can be found in Appendix 1 and also in T. Nguyen. Matrix for Mapping Stakeholders.

Box 3 describes a women's information center that was set up in Dar es Salaam, Tanzania, to provide women with business information. A similar information center could be set up in the region of study, through which information could be disseminated by SMS to ensure it reaches women entrepreneurs in the most cost-effective manner.

Special loan programs could be created for women allowing them to either start ICT-based businesses, or to invest in ICT-related equipment

Businesswomen's associations and/or government focal points for WED could implement the service. The center established by these organizations could gather and disseminate the information to women entrepreneurs through SMS. Setting up the service to ensure it meets the women entrepreneurs' information needs, has buy-in from stakeholders, and is a sustainable business model could be carried out as a form of technical assistance. Focus group discussions with women entrepreneurs showed that the focal point that disseminates the information needs to be a credible source that the women can trust; it also needs to be a visible source so that others who have relevant information can participate easily. The information being delivered to women entrepreneurs would be based on the needs and preferences they expressed in the surveys. The service could be set up in different ways: using Twitter to send an SMS, using bulk SMS, using a content service provider and/or telecom service where users pay to subscribe and, thus, help make the service sustainable. Funding from relevant stakeholders, or by selected advertisers that have useful information to disseminate to women entrepreneurs could make the service sustainable. Women entrepreneurs in the survey indicated that they would be willing to pay a monthly subscription fee for such a service.⁹⁰

Box 3 The Women's Information Centre at the Ministry of Community Development Gender and Children in Dar es Salaam, Tanzania

The Women's Information Centre was set up in 1997 at the Ministry of Community Development Gender and Children in Dar es Salaam, Tanzania, with the technical assistance of the Italian Association of Women for Development. The center provides women with updated information on economic, educational/scholarship, health, and credit opportunities, and enables women to report gender-based violence. The center has recently opened new branches in four different regions of the country to extend its reach in providing women with information.

Source: The United Republic of Tanzania, Ministry of Community Development, Gender and Children. Women's Information Centre. http://www.mcdgc.go.tz/index.php/wic/category/women_information_window_wiw/

5. Loan programs for women entrepreneurs to set up businesses in the information and communication technology service industry and online businesses, or invest in information and communication technology-related equipment

Although women-focused financing programs exist in Kazakhstan, the Kyrgyz Republic, and Uzbekistan, there are no special financing programs that encourage women entrepreneurs to leverage ICTs in their businesses, or support women-owned business start-ups in the ICT sector. Special loan programs could be created for women allowing them to either start ICT-based businesses, or to invest in

⁹⁰ For details on women's information needs and their affordability, see T. Nguyen. Detailed Analysis of Findings.

ICT-related equipment. This could be implemented in conjunction with national entrepreneurship funds, suitable financial institutions, or business incubators such as the Barama Innovation/Incubation Center in Azerbaijan.

6. Information and communication technology skills capacity, and support to use information and communication technologies in business

In surveys across the four countries, women entrepreneurs said they were not confident of their skills and knowledge in using ICTs for their business, and most frequently requested training in these skills.

Training could include short workshops (either face-to-face or online) on how to use the technology for their business and information on relevant online services locally and internationally. More advanced modules could include the use of ICTs for specific objectives such as accessing domestic and export markets, or short-term training modules for IT-related professional services (such as Photoshop, graphic design, project management) that equip women with the tools to offer professional services online. The courses should be actively promoted through a variety of channels such as flyers where women congregate, SMS, TV, and newspapers. In addition to the courses, support services for women entrepreneurs in using ICTs in their business need to be established; these services should be accessible through a variety of channels (e.g., helpline, hotline, trained people at public internet access points providing women entrepreneurs with a helpdesk service).

Mobile network operators and the government can be brought on board as their interests align: telecom companies clearly want more uptake of their mobile internet services, and governments want adoption of “e-gov” services. This would close the gender gap in ICTs. Women entrepreneurs represent a group with large potential but it is constrained by lack of skills and knowledge. The Cherie Blair Foundation for Women reported 300 million fewer female mobile phone subscribers than male subscribers globally, representing a \$13.3 billion missed marketing opportunity for MNOs.⁹¹ Similarly, most women entrepreneurs’ limited skills and knowledge of the different ways they could use mobile phones and the internet more effectively represents lost revenue for the MNOs. Key informants with the MNOs in the four countries expressed interest in participating in ICT initiatives promoting services that offer special assistance such as giving free air time, discounted handsets, and having their call centers provide helpdesk service for course participants. Box 4 highlights a successful partnership between the Union of Kazakhstani Women Entrepreneurs and the telecoms company, JSK Kcell, who together, coordinated training courses for women entrepreneurs on the best ways to use their mobile phones for business.

BDS suppliers could incorporate training, including the basic ICT skills module and the more advanced modules, as a part of their course offerings to women entrepreneurs.

Mobile network operators and the government can be brought on board as their interests align: telecom companies clearly want more uptake of their mobile internet services, and governments want adoption of “e-gov” services. The result: closing the gender gap in information and communication technologies

⁹¹ GSMA and Cherie Blair Foundation. 2012. *Women and Mobile*; GSMA mWomen. 2012. *Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid*. London. http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/01/GSMA_mWomen_Striving_and_Surviving-Exploring_the_Lives_of_BOP_Women.pdf

Box 4 Working in Partnership to Provide Information and Communication Technology Skills Training for Women Entrepreneurs

The Union of Kazakhstani Women Entrepreneurs and the mobile phone company JSK Kcell, within the framework of the Republican School of Women Leadership project has provided training on the different ways that mobile phones can be used for women's business activities. The union organized the women, and Kcell provided the training. In 2013, about 250 women entrepreneurs were coached in the cities of Taraz, Aksu (Akmola region), and Karaganda. According to Kcell, the women found it very useful and the company itself regards the program as a success, which they plan to scale up in 2014.

Source: Key Informant Interviews. Kcell. 14 June 2013; Union of Women Entrepreneurs of Kazakhstan. 19 June 2013.

7. Leveraging information and communication technologies for business development support, in conjunction with access to finance initiatives for women entrepreneurs

It is important to have access to gender-sensitive finance initiatives or special financing programs for women. However, it is equally important to make sure that women, particularly those in rural areas, know how to access finance and have the capacity to use them appropriately. For example, in Azerbaijan, the Asian Development Bank is extending a \$50 million loan to AccessBank Azerbaijan, to support micro, small, and medium-sized enterprises (MSMEs) operating outside of the capital, Baku. ICTs could play an important role in promoting this opportunity to women entrepreneurs through suitable channels to ensure that they benefit, and could provide the appropriate BDS to build women entrepreneurs' capacity to effectively use the loan.⁹²

Internet-based financial literacy training should include educating women on credit, savings, how to maximize their chances of obtaining loans, how to evaluate the loan's terms and conditions, and how to apply for loans

ICTs could be leveraged to (i) help address barriers to accessing finance, such as a lack of awareness or a lack of financial training, or financial literacy; (ii) promote BDS to women; and (iii) provide flexible access to BDS (through mobile phones or the internet). This could be done in partnership with women entrepreneurs' associations, BDS suppliers, and financial institutions targeting women entrepreneurs. SMS or internet-based financial literacy training should include, for example, educating women on credit, savings, how to maximize their chances of obtaining loans, how to evaluate the loan's terms and conditions, and how to apply for loans that are available. It is also essential to promote women's awareness of relevant loan programs through the information channels that women entrepreneurs cited as their main source of information news and advice (TV, word of mouth, the internet, or mobile phone).

8. Capacity building for government-based women's entrepreneurship development focal points, women entrepreneurs' associations, and nongovernment organizations that work with women entrepreneurs to increase effectiveness of information and communication technologies

Interviews with governments' WED focal points, businesswomen's associations, and NGOs that work in WED revealed that while there is strong interest in leveraging

⁹² ADB. 2013. *ADB to Support Financing for Rural Business in Azerbaijan*. <http://www.adb.org/news/azerbaijan/adb-support-financing-rural-businesses-azerbaijan?ref=countries/azerbaijan/news>

ICTs for their activities, at the moment, ICTs are being used in a limited manner through websites, making calls, person-to-person SMS, and in consulting members on their needs through forums and face-to-face meetings. These are all positive initiatives, but ICTs could enable them to undertake the same activities with a wider reach and in a more cost-effective way. In particular, they could reach women in rural areas by, for example, sending bulk SMS alerts to their member base, using mobile-based applications for increasing the member base, and consulting their members more effectively by using ICT tools such as SMS to poll opinions. ICTs could also assist the organizations in developing and operating websites with information about them, their activities, and reports, using multiple ICT channels (e.g., websites, the internet, mobile phones, radio, or TV); disseminate policy-related information; and ensure that the information reaches urban and rural women entrepreneurs. Actively using a combination of ICT tools (e.g., e-mail, mobile phones, radio, hotline) to consult with women entrepreneurs, including those in rural areas, is most important.

Capacity building, training, and technical assistance could be provided to these organizations to enable women in urban and rural areas to join women entrepreneur associations and networks and participate in multiple ways: contacting members through SMS, calls, or online; actively using channels such as TV, SMS, and websites to attract new members, including those in rural areas; enabling members of women entrepreneur associations and networks to engage, interact, and participate in activities through SMS, social media, websites, and e-mail; and soliciting and capturing inputs from members to ensure that women's voices are heard. Box 5 illustrates the successful use of mobile phones and SMS to contact and communicate with farmers in remote parts of Fiji.

Box 5 Leveraging Mobile Phones to Build Membership and Provide Information to Farmers in Fiji

The Fiji Crop and Livestock Council (FCLC) represents farmers in Fiji, and has a mission to be Fiji's voice for efficient agriculture. Although it has only four staff members, the organization aims to reach out to all farmers in Fiji, including those in the remote islands. As the council is based in Lautoka, which many farmers may not visit, and it has limited resources, it was decided early on to leverage ICTs extensively for its membership outreach activities. Its farmers tend to have access only to mobile phones rather than the internet so the organization decided to extensively leverage mobile-based applications. As a technical assistance project funded by the European Union and implemented by the International Trade Center, a mobile-based membership application has been developed for the FCLC: any farmer in Fiji can dial *605# to send a request to the FCLC to become a member. The request then goes to a web-based customer relationship management system that the FCLC uses to manage its membership and send out targeted SMS alerts to specific member groups depending on its communication needs. The mobile-based membership registration system and the short code number are operated for free by Vodafone Fiji under the company's corporate social responsibility program. The FCLC purchased bulk SMS from an online service provider at a discounted cost. The customer relationship management system allows the FCLC to send an SMS to a large group of hundreds of members at a time allowing it to communicate with members in a cost-effective and efficient manner.

Source: Personal e-mail communication with the author.

9. Leveraging information and communication technologies to enable access to gender-sensitive financial services and alternative access to finance, especially for women entrepreneurs in rural and peri-urban areas

Lack of awareness of, education about, and accessibility to finance are key factors that can constrain women entrepreneurs. ICTs could be used to address these issues.

The government focal point in WED could carry out awareness and education initiatives in cooperation with businesswomen's associations, appropriate financial institutions, and NGOs that have a women's economic empowerment component in their program. These initiatives should include creating a one-stop-shop website, or mobile-based application with information on the different financing programs and options available for entrepreneurs, with features that enable them to select the most suitable loans (e.g., objective reviews and ratings, loan comparisons, loan selection tools), and links to banks and online loan applications.

Information and communication technologies could be used to ensure that women are aware of financial programs, have access to women-targeted credit and equity programs, and can use tools that assess borrowers' risks, thus easing the requirements for collateral

ICTs could also be leveraged by financial institutions with loan programs for women entrepreneurs to better reach and service them, particularly banks like AccessBank with its new loan program targeting businesses outside of Baku, in Azerbaijan. To make sure women entrepreneurs in peri-urban and rural areas benefit, it is important to keep in mind that mobility restrictions and lack of access to information and collateral affect these groups more severely. ICTs could be used to ensure that women are aware of the programs by actively promoting financing programs, tailor-made loans, and other financial service products through a variety of ICT channels that were found in the research to have an extensive reach to women entrepreneurs such as TV, mobile phones, and the internet. ICTs could also be used to help women overcome mobility restrictions by making women-targeted credit (microfinancing and commercial bank financing) and equity (seed and venture capital) programs accessible to women, especially those living outside urban areas, through ICT-enabled solutions such as online loan applications. To help women entrepreneurs address the problem of lack of collateral, institutions could implement innovative ICT-enabled tools to assess borrowers' risks and help ease the requirements for collateral (e.g., scoring system, ICT-enabled psychometric screening tools).

10. Infrastructure issues

Infrastructure issues are outside the scope of this study. However, they are important to the effectiveness and the feasibility of ICTs for WED.

While Azerbaijan and Kazakhstan are working to provide 100% broadband coverage, all four countries have relatively low internet broadband coverage. Making affordable broadband internet connection available across the country is an important enabling factor for businesses, including those owned by women.

An efficient international payment system to enable cost-effective remittance of money from overseas into the country to promote international e-commerce is also important. Women who participate in online business opportunities can benefit greatly from this infrastructure.

Finally, for women in rural areas who may not have access to the internet or banking systems, establishing mobile money in the country could have a great impact. It would give rural women entrepreneurs access to finance to carry out business transactions and the business opportunities that come with doing so.

Establishing mobile money could give rural women entrepreneurs access to finance to carry out business transactions and the business opportunities that come with doing so

Additional Country-Specific Recommended Actions

1. Azerbaijan

Campaigns to address the attitudinal barriers against women using the internet in rural areas

Lack of access to the internet due to local attitudinal barriers may seriously impede women entrepreneurs in rural areas, who would otherwise stand to gain significantly from the internet in gaining access to information, skills training, and new business opportunities. To remove this barrier, an awareness-raising campaign should be implemented that links the internet with the ideas of being a good mother and a good entrepreneur. Consideration should be given to using role models and success stories of women who use the internet for their business and for their family, for instance, by accessing health information, information on how to raise children, and so on.

The campaign can also showcase success stories of women entrepreneurs who leverage ICTs to grow their business, or to start new businesses in profitable, high-growth sectors, including ICTs.

Leveraging information and communication technologies to enable a gender-sensitive legal and regulatory environment that favors the economic empowerment of women

Based on the gaps already identified in this report, several actions could be carried out by government agencies (the Ministry of Communications and Information Technologies [MoCIT], the Ministry of Economic Development) in conjunction with the State Committee for Family, Women and Children Affairs and the Businesswomen Associations to address gaps in leveraging ICTs (see section iv):

- Enable women to carry out administrative tasks to claim their property and inheritance rights and complete any procedural requirements (if applicable) to gain access to these rights online.
- Enable women to apply through multiple ICT channels (e.g., online, hotline, mobile phone) for assistance with legal recourse to gain property and inheritance rights.
- Increase women's awareness of useful e-government services for women entrepreneurs and relevant regulations, and promote them through the multiple ICT channels shown in this study as the key sources through which women get information: TV, word of mouth, the internet, or mobile phones (SMS alerts).

Leveraging information and communication technologies to enable access to gender-sensitive business development support and deliver flexible business development support for women entrepreneurs

BDS suppliers could carry out the following actions:

- Promote BDS courses and services to women entrepreneurs through TV, the internet, mobile phones, and businesswomen's networks.
- Create flexible access for women entrepreneurs to the national system of business support (e.g., a women's desk in government MSME agencies, women's enterprise or business resource centers, entrepreneurial training programs for women, among others) through a variety of channels: the internet, mobile phones, public access points, and a hotline.
- Create a one-stop-shop website that has all the related resources and services available for women entrepreneurs. This should be actively promoted to women entrepreneurs in rural and urban areas through a variety of ICT channels, including the internet, mobile phones, TV, and radio.

Leveraging information and communication technologies to enable women entrepreneurs to access supply chains

The MoCIT, the Ministry of Economy and Industry, and the Women's Committee of the Azerbaijan National Confederation of Entrepreneurs (ASK) could carry out the following initiatives:

- Implement ICT-enabled initiatives to integrate women entrepreneurs into the supply chains across many sectors in which women-owned enterprises are dominant, and in different parts of the country.
- Integrate the use of multiple ICT tools in the initiative to facilitate access nationwide and to increase participation opportunities for women entrepreneurs in urban and rural areas.
- Implement e-procurement, with training courses on how to access public procurement opportunities available online.
- Promote e-procurement opportunities for women and the training courses to women entrepreneurs through TV, SMS, the internet, and e-mail.

Although Kazakhstan has an excellent, award-winning system for e-government and online business registration, statistics show that women make up only 23% of the service users

2. Kazakhstan

Promoting e-government services and e-licensing services to women entrepreneurs

Although Kazakhstan has an excellent system for e-government⁹³ and online business registrations, which have won awards⁹⁴ and have multichannel access, statistics on the e-government portal (egov.kz) in the second quarter of 2013 showed that

⁹³ Government of Kazakhstan. E-gov : Public Services and Information Online. <http://egov.kz>

⁹⁴ In 2012, the Republic of Kazakhstan was awarded 2nd place "For the Second Best Experience on E-Participation Worldwide" by the UN Under-Secretary-General for Economic and Social Affairs. <http://mtc.gov.kz/index.php/en/news/605-v-nyu-jorke-predstavitelyam-respubliki-kazakhstan-vruchena-nagrada-za-zanyatoe-respublikoj-ii-mesto-po-indeksu-e-uchastie-e-participation-v-rejtinge-oon>

women made up only 23% of the service users.⁹⁵ Findings indicate that what is missing is active promotion of the portal to women especially those in rural areas, and flexible training to ensure that they know how to use it. In focus groups, women entrepreneurs complained specifically that they missed face-to-face training.

Creating a one-stop-shop website with information and resources for women entrepreneurs

A one-stop-shop website could be created for women entrepreneurs that has all the related resources and services available to them, including information and access to online BDS courses and information on loans and access to online loan applications; this should be actively promoted to all women entrepreneurs through a variety of ICT channels.

3. Kyrgyz Republic

Leveraging information and communication technologies for a gender-sensitive legal and regulatory environment that favors the economic empowerment of women

The following initiatives should be carried out to address the identified gaps:

- Enable women to register businesses online in an efficient, user-friendly way.
- Ensure that women are made aware of business registration and licensing procedures through multiple ICT channels: TV, mobile phones, the internet.
- Use ICT tools, including TV, websites, mobile phones, and SMS to make women and men in urban and rural areas aware of women's property and inheritance rights.
- Enable women to carry out administrative tasks to claim their property and inheritance rights and complete any procedural requirements (if applicable) to gain access to these rights online.
- Allow individuals to obtain a license online for all types of businesses, including those more traditionally started by women.
- Enable women to apply for assistance with legal recourse to gain these established economic rights through multiple ICT channels (e.g., online, hotline, mobile phone).

Creating a one-stop-shop website with information and resources for women entrepreneurs

It would be beneficial to create a centralized online resource (a one-stop-shop website) that provides policy-related information to women entrepreneurs to ensure that the information reaches them, with a mechanism for women entrepreneurs to give feedback and submit questions. This could be via an SMS alert function to which women entrepreneurs can subscribe to receive alerts. The same website could also include information on the different financing programs and options available for entrepreneurs, including those specifically for women entrepreneurs, with features that women entrepreneurs could use to select the most suitable loans (e.g., objective

Women entrepreneurs would benefit from a centralized, one-stop-shop online resource that provides policy-related information, with a mechanism that allows them to give feedback and submit questions

⁹⁵ Government of Kazakhstan. E-gov: Public Services and Information Online. <http://egov.kz/wps/portal/Content?contentPath=/egovcontent/basic/stat>

reviews and rating, loan comparison, loan selection tool), and links to banks for further information and application. An SMS alert function could also be included so that women in rural areas would benefit from the updates.

Leveraging information and communication technologies to enable access to gender-sensitive business development support and deliver flexible business development support for women entrepreneurs

BDS providers are offering courses and services that can be accessed through the internet. However, given the low internet coverage in the Kyrgyz Republic, other forms of ICTs should be used to provide women entrepreneurs with flexible access to services.

Enabling women entrepreneurs' access to markets including access to the export market

ICTs could be leveraged to enable women entrepreneurs' greater access to markets in several ways:

- A variety of ICT channels could deliver capacity-building programs such as training women entrepreneurs on how to use ICTs to access markets, including export markets and/or supply chain links.
- Various ICT channels could ensure that women-owned enterprises are aware of export readiness, supply chain link programs, and capacity-building programs to improve their ability to export and supply the supply chain.
- Supply chain initiatives for women-owned enterprises need to be implemented across many sectors in which women-owned enterprises are dominant, and in different parts of the country. The initiatives should integrate the use of multiple ICT tools to facilitate access nationwide and to increase participation opportunities for women-owned enterprises in urban and rural areas.
- ICTs, including e-mail, mobile phones, websites, and TV should be used to promote export opportunities to women-owned enterprises, such as actively seeking participation in government-sponsored trade missions and fairs.

4. Uzbekistan

Leveraging information and communication technologies to enable a gender-sensitive legal and regulatory environment that favors the economic empowerment of women

ICTs can be leveraged to enable a gender-sensitive legal and regulatory environment for women entrepreneurs to

- obtain business licenses online;
- carry out administrative tasks to claim their property and inheritance rights, and complete any procedural requirements (if applicable) to gain access to these rights online; and
- apply for assistance with legal recourse through multiple ICT channels to gain their established economic rights.

Business development support providers in the Kyrgyz Republic are offering internet-accessible courses and services. However, other forms of information and communication technologies should be used to provide women entrepreneurs with flexible access to services

Leveraging information and communication technologies to enable effective women's entrepreneurship development policy, leadership, and coordination

The Women's Committee of Uzbekistan (WCU) is developing a web portal for women entrepreneurs. It is recommended that the WCU coordinate the flow of information related to the women's entrepreneurship, and that relevant policy issues on the web portal be viewable on a mobile phone, with the option of an SMS alert function to allow women entrepreneurs to be updated of changes. The website should be actively promoted to women entrepreneurs through multiple ICT channels (e.g., websites, the internet, mobile phones, radio, TV) to disseminate policy-related information and ensure that the information reaches urban and rural women entrepreneurs.

The Women's Committee of Uzbekistan should coordinate the flow of information on women's entrepreneurship, and ensure that policy issues on the web portal can be read on a mobile phone, with the option of an SMS alert to update women entrepreneurs of changes

Leveraging information and communication technologies to enable access to gender-sensitive financial services and alternative access to finance

A variety of ICT channels (e.g., radio, mobile phone services, and social media) could be used to disseminate financial information to women entrepreneurs in several ways:

- Make information on the different financing programs and options (including those that are specifically for women entrepreneurs) available to entrepreneurs. The programs and options should enable women entrepreneurs to select the most suitable loans (through, for example, objective reviews and ratings, loan comparisons, or loan selection tools). These could be included in the web portal that the WCU is developing for women entrepreneurs.
- Promote through multiple ICT channels the mobile-based applications developed by the Chamber of Commerce and Industry to provide information on the different access to finance options for women entrepreneurs.
- Employ ICT tools such as SMS, TV, radio, and the internet to deliver courses on financial literacy, enabling rural women who do not have access to workshops, or cannot attend because of time constraints, to access the courses.

Leveraging information and communication technologies to enable access to gender-sensitive business development support and deliver flexible business development support to women entrepreneurs

ICTs could be used to create a one-stop-shop website that has all the related resources and services available for women entrepreneurs and to ensure that it is actively promoted to women entrepreneurs in rural and urban areas through a variety of ICT channels such as the internet, mobile phones, TV, and radio. The website being planned by the WCU could be this one-stop-shop. Although the Chamber of Commerce and Industry has electronic information kiosks in local government offices in 15 regions with information on organizing and doing business, women entrepreneurs still have to travel to them. It would be markedly easier if they could have access from a local internet café.

ICTs could also be used to promote the Chamber of Commerce and Industry's internet portal: businessinfo.uz as well as its mobile-based tools, which are useful for women entrepreneurs.

Leveraging information and communication technologies to enable women's access to markets, including the export market

As a part of the government's effort to promote women entrepreneurs, the following recommendations could increase women's access to markets, including the export market:

- Leverage a variety of ICT channels to deliver capacity-building programs that include training women entrepreneurs how to use ICTs to access markets, including export markets and supply chain linkages.
- Leverage ICT channels to ensure that women-owned enterprises are aware of export readiness, supply chain link programs, and capacity-building programs to improve their ability to export and supply the supply chain.
- Implement supply-chain initiatives for women-owned enterprises across many sectors in parts of the country where women-owned enterprises are dominant. The initiatives integrate the use of multiple ICT tools to facilitate access nationwide and to increase participation opportunities for women-owned enterprises in urban and rural areas.
- Use ICTs such as e-mail, mobile phones, websites, and TV to promote export opportunities to women-owned enterprises, and use these channels to actively seek participation in government-sponsored trade missions and fairs.
- Make e-procurement available, along with training courses on how to access public procurement opportunities online and in face-to-face formats. Ensure that e-procurement opportunities for women and training courses are actively promoted to women entrepreneurs through SMS, mass media, the internet, and e-mail.
- Create special financing programs that enable women entrepreneurs to purchase new ICT equipment, or obtain funds that support women-owned enterprise start-ups in ICT businesses.
- Include women entrepreneurs in technology upgrade and modernization programs, and programs focused on integrating ICT-enabled solutions (e.g., management information systems, online marketing, e-commerce). Initiatives are not being implemented to actively encourage women entrepreneurs to start businesses in higher-growth and innovative sectors of the economy, including ICT (e.g., start-up incubation program for women-owned enterprises in ICT).

Appendixes

Appendix 1: Organizations Approached for Key Informant Interviews during the Assessment Process

Azerbaijan (3–12 June 2013)

During 3–12 June 2013, 15 meetings were held with 22 key informants, including those from government, quasi-government, nongovernment organizations (NGOs), international organizations, and the private sector. The table below lists the organizations approached.

Category	Organization	Date
Government	Ministry of Communications and Information Technologies	5 June
	State Committee for Family, Women and Children Affairs	6 June
	Ministry of Economic Development	7 June
	Azerbaijan National Fund for Entrepreneurship Support	9 June
Quasi-Government	Baku Business Training Center	9 June
	Azerbaijan National Confederation of Entrepreneurs	4 June
Nongovernment Organizations	Forum of Azerbaijan Women Entrepreneurs	3 June
	Digital Development	4 June
	Women's Association for Rational Development	5 June
	Clean World Public Union for Aid to Women	8 June
Private Sector	Aygun World of Carpets Association in Guba	9 June
	Azercell Barama Innovation Center	10 June
	Women Café Mandarin, Baku	12 June
International Organization	Asian Development Bank	3 June

Kazakhstan (12–22 June 2013)

During 12–22 June 2013, 10 meetings were held with 23 key informants, including those from government, quasi-government, NGOs, international organizations, and the private sector. The table below lists the key organizations approached.

Category	Organization	Date
Government	National Commission for Women Affairs and Family-Demographic Policy under the office of the President of the Republic of Kazakhstan	20 June
Quasi-Government	DAMU Entrepreneurship Development Fund	13 June
	National Infocommunication Holding (ZERDE)	20 June
Nongovernment Organizations	Union of Women Entrepreneurs of Kazakhstan	19 June
	Business Women Association	20 June
	Center for Gender Studies Almaty	14 June
Private Sector	Halyk Bank of Kazakhstan	13 June
	JSK Kcell	14 June
International Organizations	UN Women Sub-Regional Office for Eastern Europe and Central Asia	14 June
	ADB's Kazakhstan Resident Mission	21 June

ADB = Asian Development Bank.

Kyrgyz Republic (3–12 July 2013)

During 3–12 July 2013, 18 meetings were held with 35 key informants, including those from government, quasi-government, international donors organizations, NGOs, and the private sector. The table below lists the key organizations approached.

Category	Organization	Date
Government	Ministry of Economy	4 July
	Ministry of Transport and Communication	
	Ministry of Social Development	
	State Communication Agency under the Government of the Kyrgyz Republic	12 July
Quasi-Government and International Organizations	Women's Leadership in Small and Medium Enterprises Program in the Kyrgyz Republic supported by the United States Agency for International Development	3 July
	World Bank	5 July
	United Nations Development Programme ICT for Development Program	9 July
	International Trade Centre	9 July
	Information program of the Soros Foundation-Kyrgyzstan	10 July
	UN Women	12 July
	Asian Development Bank	12 July

continued on next page

Table continued

Category	Organization	Date
NGOs	The Roza Otunbayeva Initiative International Public Foundation	4 July
	Women Entrepreneurs Support Association, Kyrgyz Republic	5 July
	Women's Forum "Kurak"	9 July
Private Sector	Alfa Telekom LLC (operates under the Megacom trademark)	10 July
	Nikita Mobile LLC	
	Sky Mobile LLC (operates under the Beeline trademark)	
	MFB Bai-Tushum and Partners, CJSC	10 July

ICT = information and communication technology, NGO = nongovernment organization, UN = United Nations.

Uzbekistan (14–23 July 2013)

During 14–23 July 2013, the mission team held 14 meetings with 35 key informants, including those from government, quasi-government, NGOs, international organizations, and the private sector. The table below lists the key organizations approached.

Category	Organization	Date
Government	State Committee for Communication, Information and Telecommunication Technologies of the Republic of Uzbekistan	16 July
	Chamber of Commerce and Industry of Uzbekistan	18 July
	Ministry of Labor and Social Security of the Republic of Uzbekistan	19 July
	Central Bank of the Republic of Uzbekistan	22 July
	Ministry of Economy of the Republic of Uzbekistan	22 July
Quasi-Government	Women's Committee of Uzbekistan	16 July
International Organizations	ADB's Uzbekistan Resident Mission	16 July
	United Nations Development Programme in Uzbekistan	19 July
Nongovernment Organizations	Tadbirkor Ayol Businesswomen's Association of Uzbekistan	16 July
	Hunarmand Association of Artisans of Folk Masters, Artisans and Artists of Uzbekistan	18 July
	National Association of Microfinance Institutions of Uzbekistan	19 July
Private Sector	"Mikrokreditbank" Open Joint-Stock Commercial Bank	18 July
	Ipak Yuli Bank	19 July
	Unitel, LLC (Beeline trademark)	22 July

Appendix 2: Locations Used for Focus Groups during the Assessment Process

Azerbaijan Focus Groups

During 3–11 June 2013, six focus groups were held: two urban focus groups in Baku; two peri-urban focus groups in Sahil and Sangachal settlements; and two rural focus groups in Karrar village, and Kurdamir and Garabork villages in Ujar. A total of 61 women entrepreneurs participated (see table below).

Category	Venue	No. of Participants	Date
Urban	Office of NGO Partnership Alliance	10	4 June
	Meeting room of Azerbaijan National Confederation of Entrepreneurs	11	5 June
Peri-urban	Sahil settlement community/wedding house	12	6 June
	Sangachal settlement library meeting room	10	7 June
Rural	Ujar region Garabork village	8	11 June
	Kurdamir region Karrar village	10	11 June

NGO = nongovernment organization.

Kazakhstan Focus Groups

During 16–18 June 2013, six focus groups were held: two urban focus groups in Almaty, two peri-urban focus groups in Kaskelen settlement, one rural focus group in Kaskelen settlement where participants traveled in from nearby villages, and one rural focus group in Shortandy near Astana. A total of 48 women entrepreneurs participated (see table below).

Category	Venue	No. of Participants	Date
Urban	Republican Library for the Blind and Visually Impaired Citizens, Almaty	9	17 June
	Classroom in the Kazakh-American Free University “Parasat”	9	17 June
Peri-urban	Commercial Center “Alatau” Kazakelen settlement	9	16 June
	Commercial Center “Alatau” Kazakelen settlement	9	16 June
Rural	Commercial Center “Alatau” Kaskelen settlement	6	18 June
	Village Shortandy, Astana	6	21 June

Kyrgyz Republic Focus Groups

During 6–11 July 2013, six focus groups met: two urban focus groups in Bishkek and Osh; two focus groups from the peri-urban area of Bishkek (newly constructed districts-settlements: Archa Beshik, Ak-Bata, Kyzylord); and two rural focus groups in Kara-Suu area, Otyz-Adyr village and Issykata area, Zymyryk village. A total of 49 women entrepreneurs participated (see table below).

Category	Venue	No of participants	Date
Urban	Meeting room of Business Academy, Bishkek	6	6 July
	Conference hall of the Sunrise Hotel, Osh	8	8 July
Peri-urban	Meeting room of Business Academy, Bishkek	8	6 July
	Meeting room of the Arysh NGO, Bishkek	5	11 July
Rural	Agency of Development Initiatives (ADI) local office Osh region, Karasuu area, Otuz Adyr village.	14	8 July
	ADI local office, Chui Region, Issyk-Ata, Zymyryk village	8	11 July

Uzbekistan Focus Groups

During 15–20 July 2013, six focus groups were held: two urban focus groups in the city of Tashkent, two peri-urban focus groups in Tashkent Province, and two rural focus groups in Samarkand and Jizzakh provinces. A total of 50 women entrepreneurs participated (see table below).

Category	Venue	No. of Participants	Date
Urban	Office of the Tashkent City Branch of the Business Women's Association	8	15 July
	Office of the Tashkent City Branch of the Business Women's Association	8	15 July
Peri-urban	Office of the Tashkent City Branch of the Business Women's Association	10	17 July
	Office of the Tashkent City Branch of the Business Women's Association	7	17 July
Rural	Office of the Samarkand Provincial Branch of the Business Women's Association	8	20 July
	Office of the Samarkand Provincial Branch of the Business Women's Association	9	20 July

Appendix 3: Women Entrepreneurs' Interview Questionnaire

SECTION A: PAST EXPERIENCE AND BUSINESS OWNERSHIP HISTORY

First, I want to ask you a few questions about your business history.

1. How many businesses do you currently own or have you owned in the past?

- Number currently own:
- Number have owned in the past:

2. What year did you start your current business?

3. What were you doing before you started your current business?

- I was running another business doing similar work.
- I was an employee in another person's private business.
- I was an employee in a public company.
- I was a government employee.
- I was unemployed.
- I was a full-time student.
- I was a full-time homemaker.
- Other (Please specify)

4. Which of the following best describe(s) your reason(s) for having your own business?

[Read out: Record up to three reasons, if the respondent gives more than one reason.]

- I wanted to be my own boss.
- I saw the market opportunity for a profitable business.
- I couldn't find work anywhere else.
- I needed more flexibility to earn an income while still taking care of family and household duties.
- I don't have any skills for other kinds of employment.
- My previous employment ended.
- I wanted to increase my potential to earn a higher income.
- Other (please specify)

5. Was it necessary for you to have your husband's permission to start the business?

[Read out. Record only one response.]

- Yes, it was legally required.
- Yes, but it was not legally required.
- No, it was not.
- Not applicable. (I did not have a husband at the time.)

SECTION B: CHARACTERISTICS OF THE BUSINESS

I am now going to ask you a few questions about your current business.

6. What best describes the area in which your business is located?

[Read list. Single response]

- Urban (city area)
- Peri-urban
- Rural

7. In what sector do you operate your (primary) business?

[Read out only if the respondent requests clarification.]

- Manufacturing [using machinery]
- Retail trade
- Wholesale trade
- Personal services (e.g., household, hairdressing, dry cleaning, etc. where individuals or families are the major customers)
- Business services (e.g., supplying services to other businesses, such as printing services, advertising or graphic design services, consultant services, etc.)
- Handmade products (e.g., handicraft, not using machinery)
- Restaurant, catering
- Finance and real estate
- Agriculture (e.g., farming, fishing)
- Food processing
- Tourism (travel agency, accommodation, etc.)
- Information and communication technologies and services (e.g., mobile phone shop, online marketing agency, selling mobile phone credit, IT company, etc.)
- Other (please specify)

8. How was this business started?

[Read out. Single response]

- As a family owned business.
- I started from scratch on my own initiative.
- I bought the business as a running operation.
- I inherited the business.
- Other (please specify)

9. What type of premises does your business operate from?

[Do NOT read out unless the respondent asks for clarification. Record single response.]

[National adaptation of this question may be required]

- My personal residence [Go to Q. 12]
- Formal business site (e.g., office building, storefront, factory, incubator, etc.) [Go to Q. 12]
- Market stall [Go to Q. 12]
- Informal structure (e.g., kiosk, etc.) [Go to Q. 12]
- Farm plot [Go to Q. 12]
- Street (no structure) [Go to Q. 13]
- Other (please specify)

10. What type of structure does your business have?

[Read out. Record a single response.]

[National adaptation of this question is required]

- Sole proprietorship (single ownership) [Skip next question.]
- Partnership
- Incorporated with limited liability
- Cooperative
- Other (please specify)

11. How many owners (i.e., partners, shareholders) are there in this business and what sex are they?

- Female owners (excluding yourself) [Write in number]
- Male owners [Write in number]

12. How many workers are there in the business?

[Write in number. Record "0" for none, and "N" for no response or don't know.]

- Including yourself, how many workers (paid and unpaid) are there in your business at present?
- How many paid workers are there in your business at present?

13. In which markets do you sell most of your products/services?

[Read out. Record single response.]

- Local markets? (In the local area)
- Regional or provincial markets?
- National markets? (Across the country)
- International markets?

SECTION C: YOUR USAGE OF MOBILE PHONES, COMPUTER, THE INTERNET, AND MASS MEDIA (TV, RADIO) IN YOUR BUSINESS

14. Do you use any of the following tools for your business activities? (e.g., for getting information, reaching customers). Please circle all that apply.

- Regular mobile phone
- Mobile phone that can access the internet
- Computer
- Laptop
- Handheld tablets (e.g., iPad)
- Internet on computer
- Internet on mobile phone
- Internet café (Internet club)
- Telecenters
- Internet kiosk
- Radio
- TV

15. How do you get news, information, and advice?

[Select all that apply.]

- Mobile phone
- Mobile phone that can access the internet
- The internet

- Newspapers
- Radio
- TV
- Word of mouth (from my neighbors, friends, other women)
- From printed flyers at the market and shopping centers
- From printed flyers at my children’s schools
- Other (please specify)

16. If you listen to the radio: Which station and what is the usual time that you listen to the radio?

17. If you watch TV: Which station and what is the usual time that you watch TV?

18. If you read newspaper, which newspaper?

19. Which types of information out of the list below would you say to be important for your business, and are you either not getting it, or have it at the moment?

[Tick all that apply]

	I need access to this information	I am not getting access to this information	I have limited access to this information	I have easy access to this information
Women’s legal rights in relation to property, assets, and employment				
Where to go for support and help to protect my legal rights in relation to property, assets, and employment				
How to start a business				
How to access a market				
How to improve the quality of my products or services				
Success stories from other women entrepreneurs				
Useful training courses for women entrepreneurs				
Government requirements that businesses need to comply with				
Financing programs for women entrepreneurs				
How to read the terms and conditions of a loan				
How to successfully apply for loans				
Online services that are useful for entrepreneurs/women entrepreneurs				
New business opportunities and models that are suitable for women entrepreneurs				
Other (please specify)				

20. Would you be interested in an information service where useful information for women entrepreneurs is delivered to your mobile phone by SMS?

- Yes/No

21. How much would you be willing to pay per month for such information service?

22. Please list the kind of information that should be provided by the above service, so that it is worth paying for.

23. Do you know of any website, online services, or mobile phone applications that you think are good and useful for business? (e.g., online marketplace)

24. Usage of mobile phones, computer, and the internet

- Did you have use of a mobile telephone during some or all of the last 12 months?

Yes/No

- Have you used a computer from any location in the last 12 months?

Yes/No

- Have you used the internet from any location in the last 12 months?

Yes/No [If no, skip next two questions.]

25. Do you own any of the following?

- Regular mobile phone
- Mobile phone that can access the internet
- Computer
- Laptop
- Handheld tablets (e.g., iPad)
- Internet on computer
- Internet on mobile phone
- Internet café (internet club)
- Telecenters
- Internet kiosk
- Radio
- TV

26. If you have access to the internet, where did you use the internet in the last 12 months?

- Work. Where a person's workplace is located at his/her home then s/he would answer yes to the home category only.

Yes/No

- Place of education. For students. Teachers and others who work at a place of education, would report “work.” Where a place of education is used as a location for general community internet use, this use should be reported in “community internet access facility.”

Yes/No

- Another person’s home. The home of a friend, relative, or neighbor.

Yes/No

- Community internet access facility. For example, public libraries, publicly provided internet kiosks, noncommercial telecenters, digital community centers, post offices, and other government agencies. Access is typically free and is available to the general public.

Yes/No

- Community internet access facility. For example, internet or cyber cafés, hotels, airports, etc. Access is typically paid (i.e., not free of charge).

Yes/No

- Excluding use at any location via a mobile cellular telephone or other mobile access device.

Yes/No

- Any place via a mobile telephone. Use at any location via a mobile cellular telephone) including handheld devices with mobile functionality).

Yes/No

- Any place via another mobile access device.

Yes/No

- Use at any location via other mobile access devices, e.g., laptop computer or handheld device that uses wireless access (at a WiFi hotspot) or laptop connected to a mobile phone network.

Yes/No

- Other (please specify)

27. How often did you typically use the internet during the last 12 months (from any location)?

- At least once a day.

Yes/No

- Once a working day for those who only (or most frequently) use the internet for work.

Yes/No

- At least once a week but not every day.
Yes/No
- Less than once a week.
Yes/No

28. I will now read a list of general activities. For each activity, I will read a list of tools. Please indicate whether you have used the tool to carry out the activity in the last 12 months (from any location).

[Read out each activity (row) and the tools (columns). Record response.]

	Internet on computer	Internet on mobile phone	SMS	Calls
	Yes	Yes	Yes	Yes
Getting information about goods or services				
Getting information related to health or health services; includes information on injury, disease, nutrition, and improving health generally				
Getting information from government organizations. Government organizations include central, state, and local government units. Information may be obtained via websites or e-mail				
Interacting with government organizations. Includes central, state, and local government organizations, and includes downloading/ requesting forms, completing/ lodging forms online, making online payments, and purchasing from government organizations. It excludes getting information from government organizations				
Sending or receiving e-mail				
Telephoning over the internet/VOIP; using Skype, iTalk, etc. Includes video calls (via webcam)				
Posting information or instant messaging (chat)				
Posting messages or other information to chat sites, blogs, newsgroups, online discussion forms and similar, use of instant messaging.				
Purchasing or ordering goods or services. Refers to purchase orders placed via the internet whether or not payment was made online. Orders that were canceled or not completed are excluded. Includes purchasing of products, such as music, travel, and accommodation via the internet				

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Table continued

	Internet on computer	Internet on mobile phone	SMS	Calls
	Yes	Yes	Yes	Yes
Electronic banking/electronic payment. Includes electronic transactions with a bank for payment, transfers, etc. or for looking up account information. Excludes electronic transactions via the internet for other types of financial services such as share purchases, financial services, and insurance				
Education or learning activities (formal). Formal learning activities such as study associated with school or tertiary education courses as well as distance education involving online activities				
Education or learning activities (informal). Informal learning activities such as learning English through mobile phone				
Playing or downloading video games (includes file-sharing games and playing games online, either paid or free of charge)				
Downloading movies, images, music, watching TV or video, or listening to radio or music. Includes file sharing and using web radio or web television, either paid or free of charge				
Downloading software. Includes downloading of patches and upgrades, either paid or free of charge				
Reading or downloading online newspapers or magazines, electronic books (Includes accessing news websites, either paid or free of charge). Includes subscriptions to online news services				
Social media e.g., Facebook				
Other (please specify)				

SMS = short messaging service, VOIP = voice over internet protocol.

29. I will now read a list of business-specific activities. For each activity, I will read a list of tools. Please indicate whether you use the tool to carry out the activity in the last 12 months (from any location).

[Read out each activity (row) and the tools (columns). Record response.]

	Internet on computer	Internet on mobile phone	SMS	Calls
	Yes	Yes	Yes	Yes
Finding customers				
Finding suppliers				
Communicating with customers or suppliers				
Networking or participating in business/sector associations or groups				
Fulfilling compliance requirements with the government (e.g., paying taxes, applying for licenses)				
Getting information for business decision making, for example, finding out about compliance issues, or doing research on a product, or competitor				
Learning skills and attending training				
Daily business operation (e.g., manage your employees, keep track of inventory, bookkeeping)				
Promoting your products or services				
Selling your products or services online				
Getting information on business support services (e.g., training courses, business development support from enterprise support and development centers)				
Fulfilling compliance requirements with the government (e.g., paying taxes, applying for licenses)				

SMS = short messaging service.

30. What are the problems or difficulties that you encounter when trying to use a computer, mobile phones, or the internet for your business operation?

31. In order to use mobile phones, computer, and the internet more effectively for your business, what kind of support do you need?

[read out, record response]

32. Do you have a website for your business?

Yes/No

33. If you don't have a website for your business, why not?

34. How much, on average, do you spend a month on mobile phone cost?

35. Which mobile phone company (companies) do you use for your mobile phone?

SECTION D: FINANCING, BUSINESS INFORMATION, AND DEVELOPMENT SUPPORT

36. What source(s) of financing did you use to get your business started?

[Read out the list: multiresponse. Indicate “yes” or “no” response for each item in the list.]

(National adaptation of this question may be required, depending on the possible sources of financing available)

- My own savings
Yes/No
- Bank
Yes/No
- Government loan fund
Yes/No
- International (donor funded) project
Yes/No
- Family/friends
Yes/No
- Microfinance institution
Yes/No
- Money lender
Yes/No
- Informal savings or rotational credit scheme
Yes/No
- Other (please specify)

37. Have you tried to obtain a loan for your business anytime during the past year?

Yes (Go to next question)

No (Skip next question)

38. During the past year, where did you try to get financing for your business and were you successful in your efforts?

[Read out: multiresponse. Record response for each item in the list.]

(National adaptation of this question may be required)

- A bank
Yes/No/ If “yes,” were you successful?
- Government loan fund
Yes/No/ If “yes,” were you successful?
- International (donor funded) project
Yes/No/ If “yes,” were you successful?
- Family/friends
Yes/No/ If “yes,” were you successful?
- Microfinance institution
Yes/No/ If “yes,” were you successful?
- Money lender (private, individual)
Yes/No/ If “yes,” were you successful?
- Informal savings and credit rotational scheme
Yes/No/ If “yes,” were you successful?
- Other (please specify)
Yes/No/ If “yes,” were you successful?

39. What, in your view, are (or would be) the major problems in obtaining a loan from a financial institution (bank or microfinance institution)?

[Read out the list, multiresponse. Circle number in appropriate column for all of the items in the list.]

	Yes (a problem)	No (not a problem)	Do not know/Have no view
Collateral requirements are too high			
Interest rates are too high			
The amount of the approved loan is (would be) too small			
The term of the loan is (would be) too short			
Required to provide a personal guarantee			
Required to have a co-signer (husband, father, or other)			
Women entrepreneurs are not taken seriously by loan officers			
I do not have collateral			
Other (please specify)			

40. Do you have a bank account specifically for your business, excluding personal accounts?

Yes/No

41. Do you access any financial services online or through a mobile phone?

Yes/No

42. If not, why not?

Next, I would like to ask you a few questions about where and how you accessed useful information and business development support services regarding starting and operating your business.

43. Are you a member of any of the following business-related organizations?

[Read out list. Multiresponse]

- Chamber of commerce or industry

Yes/No

- Business association that has both men and women as members

Yes/No

- Women's business or women entrepreneurs association

Yes/No

- Industry association (sector specific)
Yes/No

- Employer's association
Yes/No

- Other (please specify)

44. From where do you normally get most of your information on business-related matters?

[Do NOT read out. Only record the first three responses (if more than one response is given).]

- Newspapers
- Government publications
- Chamber of commerce or industry
- Business association
- Lawyer/attorney
- Accountant
- Business development or enterprise center
- Independent professional business adviser
- Other business owner (male)
- Other business owner (female)
- Mentor
- Family, friends, and neighbors
- Internet (on computer)
- Internet (on mobile phone)
- Mobile phone (SMS or calls)
- Television
- Radio
- Other (please specify)

45. Anytime during the past year, have you obtained advice about your business from any of the below:

[Read out list. Record response for each one.]

- Lawyer/attorney
Yes/No

- Accountant
Yes/No

- Professional business adviser
Yes/No
- Small business or enterprise center
Yes/No
- Other business owner (female)
Yes/No
- Other business owner (male)
Yes/No
- Other (please specify)
Yes/No

46. Have you ever participated in a trade fair or exhibition?

[Read out the list. Record response for each one.]

- Local trade fair
Yes/No
- National trade fair
Yes/No
- International trade fair
Yes/No
- Other (please specify)

47. Please tell me whether you agree or disagree with the following statements about your skills in using mobile phones, computers, and the internet.

[Read out each statement in the list. Record appropriate response for each one.]

	Agree	Disagree
Mobile phones: I am aware of the different ways in which I can use a mobile phone in my business.		
I am confident about my skills in using a mobile phone for my business.		
I am interested in learning the skills to use mobile phones in my business.		
Computers: I am aware of the different ways in which I can use a computer in my business.		
I am confident about my skills in using a computer for my business.		
I am interested in learning the skills to use a computer in my business.		
The internet: I am aware of the different ways in which I can use the internet for my business.		
I am confident about my skills in using the internet for my business.		
I am interested in learning the skills to use the internet for my business.		

48. Which specific computer/ICT skills training topics are you interested in?

- How to send and receive SMS
- How to use the internet on mobile phone
- How to use mobile phones more for business needs (e.g., accessing market, getting useful information, transferring money)
- How to use computers more for business needs (e.g., bookkeeping, inventory keeping)
- How to use the internet for business (e.g., marketing, promotion, sales, accessing useful websites, etc.)
- Others, please specify

49. Which specific topics on using computers, mobile phones, the internet for business are you interested in?

- How to set up and operate online stores (e-commerce)
- How to do market research online
- How to promote your products or services using the internet
- How to search for suppliers online
- How to do research for production technologies (e.g., design, recipes, etc.) online
- Other (please specify)

50. In which format would you prefer the training?

- Face-to-face
Yes/No
- Through the internet on computer
Yes/No
- Through the internet on mobile phone
Yes/No
- Through SMS on mobile phone
Yes/No

51. For the formats that you prefer, why? And why not the others?

52. Have you ever participated in any training program that was delivered over mobile phone or the internet?

Yes/No

53. Have you ever participated in business support programs that were offered specifically to women entrepreneurs?

[Read out list. Multiresponse]

- Loan program for women entrepreneurs
Yes/No
- Entrepreneurship (or self-employment) training program for women entrepreneurs
Yes/No
- Services of a women's business support/enterprise center
Yes/No
- Government procurement program targeted to women business owners
Yes/No

- Women's trade fair or exhibition (regional, national, or international)
Yes/No
- Business counseling or mentoring program for women entrepreneurs
Yes/No

54. For the programs that you have participated in, which ones did you find useful for your business and why?

55. For the programs that you have participated in, which ones did you find NOT useful for your business and why?

56. For the business support programs that you answered No to, why did you not attend them?

- I didn't have a need for it.
- I didn't know any such programs.
- It was too expensive.
- It was not very useful.
- Other, please specify

57. What were the biggest challenges in getting your business started?

[Do NOT read out. Multiresponse—circle number for up to three responses if more than one is given.]

- Accessing financing
Yes/No
- Getting support from my family
Yes/No
- Finding a suitable business location
Yes/No
- Finding information on how to start a business
Yes/No
- Dealing with registration and regulatory requirements
Yes/No
- Knowing where to go to get advice
Yes/No
- Finding suppliers
Yes/No
- Getting customers
Yes/No
- Other (please specify)

SECTION E: BUSINESS REGISTRATION FORMALITIES AND DEALINGS WITH GOVERNMENT OFFICIALS

Next, I have only a couple of questions about the contact you have had with government officials dealing with matters related to your business.

58. Are you (your business) registered with any of the following agencies?

[Read out. Multiresponse—record all responses that apply.]

(National adaptation of this question is required)

- “Tax authorities.” Insert name.
Yes/No
- “Employment or National Social Security Fund.” Insert name.
Yes/No
- “Local Authority.” Insert name.
Yes/No
- “Statistics Division.” Insert name.
Yes/No
- “Department of Trade and Industry.” Insert name.
Yes/No
- Insert name of other as applicable.
Yes/No

59. Indicate whether each of the following factors is a barrier to registering a business with any or all of these agencies?

[Read out list. Record response for each item.]

	A barrier	Not a barrier	Don't know
The cost of registration			
The time it would take (such as traveling or waiting) to register			
Knowing how to register (having information on the steps to take, when, and where)			
Proximity of the business registration office in the area where you live (e.g., accessibility)			
Not being able to do business registration using the internet			
The amount of reporting to the government that would have to be done once registered			
The requirement to pay regular taxes on sales and income, once registered			
Other (please specify)			

60. What in your opinion are (would be) the major advantages of having a registered (formal) business?

[Read out list. Record response for each item.]

	Yes	No	Don't know
Registered businesses are able to access government support programs			
Registered businesses can benefit from social insurance or social protection programs			
Registered businesses have better access to finance, business support services and training programs			
Registered businesses have better access to markets, including export markets			
Registered businesses do not have to fear the fines or harassment by police and other authorities that informal enterprises do			
Registered businesses are able to access government support programs			
Other (please specify)			

This next set of questions is concerned with the development of your business.

SECTION F: DEVELOPMENT OF THE BUSINESS

61. Anytime during the last year have you made any of the following investments in your business?

[Read out. Record response for each of the items in the list.]

- Purchased new production equipment
Yes/No
- Made improvements in old production equipment or upgraded technology
Yes/No
- Purchased new office equipment
Yes/No
- Invested in buying ICT-related equipment (such as a mobile phone that can access the internet, computer system, management information system, etc.)
Yes/No
- Hired more workers
Yes/No
- Invested in developing a new product or improving an existing one.
Yes/No
- Moved to better premises
Yes/No
- Expanded existing premises
Yes/No
- Established additional premises or locations
Yes/No
- Invested in the start-up of another business
Yes/No
- Other (please specify)

62. How do you expect to develop your business over the next year?

[Read out. Multiresponse—record response for each item.]

- Invest in new equipment or technology for the business
Yes/No

- Increase the number of workers
Yes/No
- Decrease the number of workers
Yes/No
- Expand the range of products/services
Yes/No
- Reduce the range of products/services
Yes/No
- Expand into new markets
Yes/No
- Develop a website to do more of my sales online
Yes/No
- Move to larger premises
Yes/No
- Improve the employment conditions for workers
Yes/No
- Integrate information technology to improve the efficiency and marketing capability of the business
Yes/No
- Implement practices to be more environmentally sensitive (conserve energy and water, reduce, recycle, reuse)
Yes/No
- Not planning to make any changes
Yes/No
- Don't know
Yes/No
- Other (please specify)
Yes/No

63. Would you please indicate which of the following are likely or not likely to be problems in growing your business in the future?

[Read out list. Multiresponse—record response for each item.]

In this next question, I am interested in your perceptions about the operating conditions and needs of women entrepreneurs in (insert name of country).

	Not likely to be a problem	Likely to be a problem
Accessing financing		
Getting support from my family		
Finding a more suitable location		
Finding information on new markets (e.g., supply chain opportunities, exporting, etc.)		
Finding qualified and trusted workers		
Dealing with government regulations and compliance costs		
Finding advisors, consultants, and mentors to give growth advice		
Taxation issues		
Transportation issues		
Using ICTs (computers, mobile phones, etc.) for my business		
Accessing new markets		
Finding customers		
Other (please specify)		

SECTION G: PERCEPTIONS OF THE OPERATING CONDITIONS FOR WOMEN ENTREPRENEURS

64. Please indicate whether you agree or disagree with the following statements.

[Read out the list. Circle appropriate response for each item in the list.]

	Agree	Disagree	No opinion
It is difficult for a woman entrepreneur to deal with government regulations.			
Access to credit and finance are good and lenders are women-friendly.			
Women have the same rights as men to own property and to have it registered in their own name.			

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Table continued

	Agree	Disagree	No opinion
I know everything I need to know to make my business successful.			
My previous education and experience prepared me well for my role as an entrepreneur.			
I need more skills to operate my business successfully and to grow it to the next stage.			
I have lots of support from women's business associations and groups.			
Women have the same opportunity as men to participate in entrepreneurship education and training programs.			
Women have the same opportunity as men to access financing for their businesses.			
Women entrepreneurs have the same opportunity to access technology as men.			
Making better use of information technologies would enable women-owned enterprises to compete in markets more effectively.			
Information about business development support services is widely available to women entrepreneurs.			
Information about types and sources of financing is widely available to women entrepreneurs.			
Information about types and sources of financing is widely available to women.			
Businesswomen's/women entrepreneurs' associations are influential in the policy and decision-making processes of government and are able to represent my interests and concerns as a woman entrepreneur.			
Business and industry associations advocate to the government on policies to meet the needs of women entrepreneurs.			
Entrepreneurship is seen as an acceptable role for women in the economy and society.			
It is more difficult for a woman to start and grow a business than for a man.			
The government is supportive of women business owners in its attitudes and assistance programs.			
Laws and regulations in my country support a high degree of gender equity and equality.			
Overall, the business environment is very favorable to women entrepreneurs.			

65. What advice would you give in order to solve the problems faced by you as a woman business owner and other women like you?

[Open-ended question. Record accurately the response given. Use back side of page if you need more space, but remember to indicate the question number.]

SECTION H: DEMOGRAPHICS

Finally, I would like to close with a few demographic questions.

66. How old are you?

67. After getting the exact age: circle the appropriate category below

[Write in age of respondent]

- 15–24 years
- 25–35 years
- 35–55 years
- Above 55 years

68. What is the highest educational qualification that you have obtained?

[Do not read out. Single response]

(National adaptation of this question is required – may need adjustment based on the specifics of each country)

- No formal schooling
- Primary school (6 years or less)
- Some secondary school (7–12 years)
- Completed secondary school
- Some non-university post-secondary education
- Vocational or technical training diploma
- Some university/college education
- Bachelors degree
- Masters degree
- PhD
- Medical or dentistry degree

69. Which of the following applies to you?

[Read out. Single response]

- Single
- Married
- Separated
- Divorced
- Widowed

70. How many children do you have?

[Do NOT read out. Record actual number.]

- None
- 1
- 2
- 3
- 4
- More than 5

71. How many children under the age of 18 do you have living with you at the moment?

[Do NOT read out. Record actual number.]

- None
- 1 child
- 2 children
- 3 children
- 4 children
- 5 children
- More than 5 children

72. Indicate which of the following are present in your household.

[Read out. Circle all that apply.]

- Television
- Radio
- Internet connection on computer
- Computer
- Landline telephone connection
- Internet connection on mobile phone
- Internet connection on other handheld devices (e.g., iPad)

We are creating an online forum for international women entrepreneurs on Facebook, where women entrepreneurs who we have interviewed for this regional project can interact, share knowledge, and where our international expert on ICTs and women's entrepreneurship could also share with you useful information that could help your business. Would you like to join this forum? If yes, please provide your e-mail address and we will send you an invitation.

Also, if you would like to have a copy of the interview results or the final report, please also give us your contact details.

73. Name

74. E-mail address

75. Mobile phone number

76. Optional—Address

Thank you very much.

Information and Communication Technologies for Women Entrepreneurs Prospects and Potential in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan

In a fast-paced world where information, resources, and markets are within reach with a swipe of a finger, access to information and communication technologies (ICTs) is essential to business development and growth. This study assesses the need for and use of ICTs by women entrepreneurs in Azerbaijan, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. It exposes the gaps between ICTs and the development of women entrepreneurship within the context of legal and regulatory frameworks, policy and leadership coordination, financial services, business development support, capacity building and use promotion, and women's participation in public dialogues. Finally, this work recommends ways to use ICTs to help women start and grow their own businesses.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than \$2 a day, with 733 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

