Executive Summary

SURVEY ON ACCESS TO, AND USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) BY HOUSEHOLDS AND INDIVIDUALS IN OMAN

2014
Objectives of the Survey: measuring ICT access and use by households and individuals in Oman

This Executive Summary briefly presents the main findings of the first survey on “Access to and Use of ICT by Households and Individuals”. This survey has been implemented following “Core ICT Indicators”, which have developed under the umbrella of International Telecommunication Union (ITU) by the Partnership on Measuring ICT for Development, in order to ensure reliable and internationally comparable data on the extent of penetration of the ICTs throughout the country.

This survey follows previous assessments of the ICT sector in Oman, from which prior knowledge has been taken into account during the project implementation. In one hand, the sample frame of the Census 2010, provided by the National Centre for Statistics and Information, has been used to design the sampling. The overall objective is to provide an exhaustive set of statistical data on the ICT sector to policy makers.

The survey has produced both core ICT indicators recommended by the ITU and specific indicators requested by ITA. While results on households and individuals have been presented separately in the report, the main findings (described below) have been organised by topics.

The survey covered a number of areas including:

- Availability of ICT equipment at home
- Individuals access to ICT
- Extent of use of ICT at home
- Age group of individuals using ICT
- Education status of individuals using the ICT
- Employment status of individuals using the ICT
- Reasons for not using ICT
- The spread of usage of social media among households
- Awareness of and available government e-services and satisfaction toward using the official e-government services portal.

With a young population (about 80% of the population is under 40 years of age), the Sultanate of Oman is inhabited by about 3.6 million people (source: National Center of Statistics & Information (NCSI) Statistical Year Book 2013) including 743,000 migrants. Urbanization reaches 77% of the population. These two factors allow for a rapid adoption of technologies.
The survey was designed following the recommendations of the ITU Manual on Measuring Access and Use by Households and Individuals\(^1\), in particular with respect to the questionnaire used to collect information. The sample was designed to be representative of the population\(^2\) and provide results by Governorates and urban/rural divide.

The sampling methodology allowed for a precision of 5% for estimates of proportions at the national level. This required a sample size of 11,229 households across the country. Random sampling based on a stratified cluster design was applied.

Data was collected through face-to-face interviews, and transmitted via Tablets to a central server where data validation took place. Final aggregated results were produced with the SPSS software.

**Telephone communications in Oman are essentially mobile. 95% of households have mobile telephones.**

Communications are essentially based on mobile phones. Smart phones are used almost as often as basic ones, with almost 95% of households having one, revealing a recent acceleration of access to and use of ICT within the population.

Working fixed-line phones are twice as diffused in urban areas with respect to rural ones, mainly because of the previous availability of ICT infrastructures. Still, they cover only 1 in 4 households in Oman.

As expected, the number of mobile telephones is closely correlated with household size.

The use of mobile phones starts at an early age. Among adolescents (15-19 years), 91% of males and 83% of female already own a mobile phone and it is quite homogeneous throughout the country and between the population groups, exception given for non-Omani females which seem to make a less intensive use of smart phones.

**In Oman, 3 out of 4 households have a laptop computer, as these are more available than desktop computers or tablets. 84% of urban and 78% of rural populations have used computers in the last year.**

The large majority (74%) of households own at least one computer device, with a clear preference for laptop computers. Tablets are quite diffused, confirming the statement on recent acceleration of ICT use.
However, the counterbalance of this recent increase seems to be the price of ICT devices, as being unable to afford one is the main reason given for not having a computer within the household (48%), independent of the type of area, the size or the nationality of the household.

84% of urban and 78% of rural populations have used computers in the last year. The main location of using computer is by far in the home. The use of computers starts at an early age too and increased with the level of education attained. Consequently, computers are more intensively used by qualified workers, mainly in the public sector.

Other ICT devices such as game consoles, printers, scanners and faxes are less dispersed. Still, more than 1 in 3 households have game consoles and printers.

Internet connection is widely spread: 80% of households have access, including 69% by mobile broadband. Up to 67% of individuals have browsed the Internet, but speed problems are found when using the Internet in almost all cases (95%).

Around 80% of households have Internet access, mainly through mobile broadband connection (69% of households having mobile or fixed broadband connection (e.g. Nawras Fixed/ Wireless)). The lack of access is higher in rural households (27% without access). A large majority of rural households that have no access mention the lack of coverage (63%) as the reason. The high price of service is also a barrier for 32% of households in all the country, followed by lack of knowledge/skills (25%).

The Internet is intensively used by the Omani population. Up to 67% of individuals interviewed have browsed the web in the last 12 months, with only a slight difference between urban and rural areas. Approximately 68% of urban users have indicated they use the Internet, compared to 61% of their rural counterparts.

Access to the Internet starts at an early age reaching high penetration rates among youth and young adults, with no consistent gender gap. It decreases progressively with the age, together with the ICT skills, the lack of which especially represents a strong barrier for some specific groups of population such as elders, job seekers or non-Omani females. In general, browsing to get information about different matters, such as goods or health services is the main reason for using the Internet. This increases with the degree of education awarded, together with the frequency of sending and receiving e-mails. In the other hand, downloading or playing games has decreased. Social media networks are intensively used in comparison to professional-related web tools, which are narrowly accessed in general.

The main location of Internet access is by far in the home. The data collected reveals that problems with Internet speed exist (95% of cases), mainly due to problems with the coverage and especially in rural areas. Most individuals own a mobile phone, and in 75% of cases use it to browse the Internet. Mobile access to the Internet is therefore a widely available option throughout the country.
Most individuals interact with the Government through the Internet, especially for obtaining information. However, submitting forms and other more developed services are still rarely used.

Interactions between users and public authorities are quite developed. The majority of Internet users (61%) access government-related web sites in order to obtain information. However, challenges with Internet connection seem to be a deterrent for the submission of completed official forms.

The high amount of additional eServices requested by individuals interviewed shows a general enthusiasm for eGovernment, compared to eCommerce, which does not seem to be a source of interest. In particular, individuals would like to have more eGovernment services related to Education (65%) and Health (64%). Also noted was that a large majority of Omanis (85%) have never made a purchase over the Internet.

An international benchmarking exercise is useful to compare ICT access and use in Oman with that of similar economies. Our proposed selection of countries includes economies with a per capita GNI comprised between 70% and 130% of the value for Oman. The following graphs show Oman’s ICT access and usage statistics compared to some selected economies. Note that Oman results are based on the Households and Individuals Survey 2013.
Internationally, although Oman is doing very well compared with the selected countries regarding household access to computer and Internet, Oman still lags behind most European countries for the use of computer by Individuals.

Comparing Oman with the GCC Countries

In order to compare how Oman has performed with regards to ICT access and use in the GCC region, demand side survey data, where available, from National regulators has been used.

The aside graph shows the comparison of some selected indicators between Oman, UAE and Qatar based on national ICT surveys.

Oman seems to be lagging behind UAE and Qatar in the selected indicators, except for the households with Internet connectivity indicator.

**CONCLUSIONS, RECOMMENDATIONS AND MAIN INDICATORS**

The demand for ICT statistics has recently emerged in the developing world, spearheaded by countries such as the Sultanate of Oman that have identified the ICT sector as one of their priorities to lead economic and social developments. In that sense, the implication of policy-makers and national institutions in the implementation of the survey has been a fundamental contribution. The provision of geographical and census information, as well as the methodological support for the design and analysis of results given by the NCSI, have allowed implementing the survey and obtaining results in a very timely manner. This collaboration should be continued and strengthened.
Measuring the use of ICT by households and individuals is a pre-requisite to implement sound ICT policies. The results of the 2013 Survey show that economic difficulties to afford ICT-related costs and problems with Internet connection quality and coverage are challenges of the recent generalization of access to and use of Internet by the population. On the one hand, the main reason for not having Internet access indicated by the individuals interviewed is related to high Internet costs (i.e. high prices of services and high cost of the equipment). On the other hand, the lack of coverage, as well as the slow speed of the Internet, have been underlined by a majority of users as a main problem and have a deterrent effect for the development of Internet-based services such as eCommerce and eGovernment. These results suggest that future ICT policies should focus on improving Internet connection quality and coverage and supporting the users in accessing ICT services and equipment.

While the regular collection of ICT data has been common practice for over a decade in many OECD countries, the demand for ICT statistics has only recently emerged in the developing world. The international community, under the leadership of the global Partnership on Measuring ICT for Development has now worked for seven years to enhance the availability of internationally comparable ICT statistics. Since 2004, the year when the Partnership was launched, many achievements have been made, most notably to raise the awareness of the need to produce ICT indicators in the developing world; to develop international standards and guidelines on ICT statistics; and, to provide technical assistance on ICT measurement. The survey that was carried out, with the results described in this report, has been implemented following the international standards and in particular it provides statistical results for the compilation of the Core ICT indicators.

This survey has produced valuable results to be used for evidence-based policy-making, showing that economic difficulties to afford ICT-related costs, and problems with Internet connection quality and coverage are new challenges of the recent generalization of access to and use of Internet by the population. Thus, these results suggest that future ICT policies should focus on improving Internet connection quality and coverage and support the users in accessing ICT services and equipment.

The implementation of the survey on a regular basis should be considered, perhaps in the frame of its inclusion in the national statistics programme. Further improvements in the design of the sample size, the training of the enumerators and the implementation of validation rules have to be foreseen in order to ensure accuracy and reliability of the data.
The following list of indicators, compiled during the analysis of the survey data, gives an overview of the results obtained:

### Households:

<table>
<thead>
<tr>
<th>Proportion of Households with:</th>
<th>Total</th>
<th>Omani</th>
<th>Non-Omani</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Telephone</td>
<td>25%</td>
<td>28%</td>
<td>22%</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>96%</td>
<td>98%</td>
<td>94%</td>
</tr>
<tr>
<td>Smart Phone</td>
<td>95%</td>
<td>96%</td>
<td>94%</td>
</tr>
<tr>
<td>Computer</td>
<td>83%</td>
<td>82%</td>
<td>84%</td>
</tr>
<tr>
<td>Internet Access</td>
<td>80%</td>
<td>81%</td>
<td>79%</td>
</tr>
</tbody>
</table>

### Individuals:

#### By Employment Status:

- Student: 52%
- Employed in Public Sector: 86%
- Employed in Private Sector: 80%

#### By Age Group:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total</th>
<th>Omani</th>
<th>Non-Omani</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>79%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>10-14</td>
<td>84%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>15-19</td>
<td>79%</td>
<td>79%</td>
<td>80%</td>
</tr>
<tr>
<td>20-24</td>
<td>77%</td>
<td>77%</td>
<td>78%</td>
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<tr>
<td>25-29</td>
<td>79%</td>
<td>79%</td>
<td>80%</td>
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<tr>
<td>30-34</td>
<td>88%</td>
<td>89%</td>
<td>87%</td>
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<tr>
<td>35-39</td>
<td>82%</td>
<td>83%</td>
<td>81%</td>
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<tr>
<td>40-44</td>
<td>84%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>45-49</td>
<td>81%</td>
<td>81%</td>
<td>81%</td>
</tr>
</tbody>
</table>

#### By Employment Status:

- Total: 67%
- Omani: 66%
- Non-Omani: 67%

#### By Age Group:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total</th>
<th>Omani</th>
<th>Non-Omani</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>44%</td>
<td>43%</td>
<td>45%</td>
</tr>
<tr>
<td>10-14</td>
<td>61%</td>
<td>61%</td>
<td>62%</td>
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<tr>
<td>15-19</td>
<td>70%</td>
<td>70%</td>
<td>71%</td>
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<td>59%</td>
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<tr>
<td>45-49</td>
<td>30%</td>
<td>30%</td>
<td>31%</td>
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</tbody>
</table>

### eGovernment Services

- Obtaining information from government-related web sites: 61%
- Downloading official forms: 28%
- Submitting completed forms and/or using online services (e.g. electricity bill, ...): 14%
- No: 8%
Within the Last 3 Months: 8%
Between 3 Months and a Year Ago: 3%
More than 1 Year Ago: 4%
Never Bought or Ordered: 85%

Feedback on Speed:
- Too Slow: 7%
- Reasonable: 25%
- Fast: 8%
- Do not Know: 8%

Feedback on Price:
- Low: 67%
- Reasonable: 21%
- Too High: 11%
- Do not Know: 1%

Satisfaction on Internet Price and Speed
The large majority (74%) of households own at least one computer device, with a clear preference for laptop computers. Tablets are quite diffused, confirming the statement on recent acceleration of ICT use.