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# BANGLADESH NATIONAL ICT HOUSEHOLD SURVEY

REPORT AND OVERVIEW  
OF MAIN RESULTS  
2018 - 2019

JOINTLY CONDUCTED BY-

**ALLIANCE FOR AFFORDABLE INTERNET**

**&**

**ACCESS TO INFORMATION (A2I) PROGRAMME**

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) DIVISION

MINISTRY OF POSTS, TELECOMMUNICATIONS AND INFORMATION TECHNOLOGY



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Lastly, a big thanks to the Data Innovation team of a2i network for compiling and designing this report though it will be used only for research purposes.

We hope that you will enjoy reading this report.

## Introduction

Accessibility to the internet is not only a facilitator for economic growth, it is also progressively enhancing people's participation in government and society. Indeed, marginalized groups in society stand to benefit the most from affordable and convenient access to the internet. Countries, where only those with high incomes reap the benefits of connectivity, are countries where inequality will quickly deepen. Realizing the potential of access to the internet to achieve sustainable development goals (SDGs), the United Nations set a target to achieve universal, affordable internet access for all by 2020.

Despite the global emphasis, high connectivity costs remain one of the major hindrances to attaining universal access. Though broadband connections are relatively cheaper, they are still not accessible by the majority. At present, inequality in many countries means only those with the highest incomes can pay for internet subscriptions, and public access solutions remain few and far between. It is also alarming that most countries are failing to take proper infrastructural and policy and regulatory actions needed to drive prices down and enable access for all. Against this backdrop, Bangladesh, which envisions becoming a middle-income country by 2021 with, among other things, leveraging the successful adoption of digital technology, intends to conduct periodic assessments of internet access and use throughout the country to inform policy decisions.

The Alliance for Affordable Internet (A4AI) is an international organization that promotes good regulatory and policy practices to improve affordability and access to broadband internet. Access to Information (a2i) Programme works to harness the potential of information and communications technology to drive socio-economic development of Bangladesh. A4AI, a2i and the Government of Bangladesh, have jointly conducted a nationally representative survey to track and identify the extent and type of internet services availed by citizens in both rural and urban areas. The objectives of this survey include assessing (1) the level of internet access across different demographics in the country, (2) the ways in which people use the internet, (3) the extent of public access use, and (4) perceptions of online safety and privacy and other impacts.

We hope that the survey results can contribute significantly to the national ICT/broadband policy process currently underway and improve internet service delivery through a better segmentation and costing strategy. This report outlines the main findings and opportunities for policy intervention policy from the survey.

## Summary of Main Findings

- The survey found 43.1% of the population over the age of 15 have used the internet in the past 3 months. Men use the Internet more with 53.2% of all male respondents reporting using the Internet compared to 34.2% of women respondents. This means that the gender gap in use is 55.6% (or the extent to which a man is more likely to use the internet than a woman).
  - In terms of age, respondents between 15-24 years old are the largest group with 80.7% identifying themselves as a user.
- When asked the reason for not using the internet, most of the non-users (64.7%) said that they cannot use the Internet, while just over half (54.3%) reported that they have no need to use the internet. Also, half of the non-users (47.8%) reported not knowing what the internet is. Only 15.8% of the non-users stated that affordability is a barrier to use.

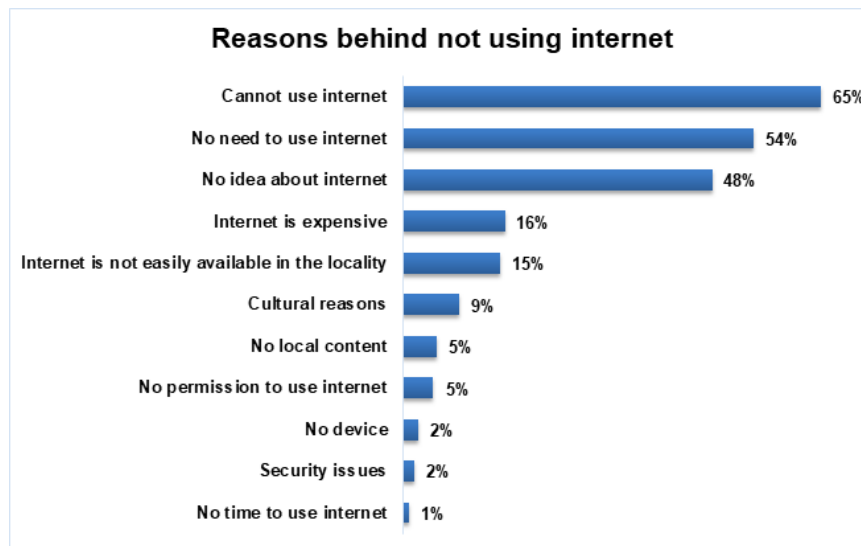


Figure 1 - Reasons for not using the Internet

- An overwhelming 91.8% of the respondents had used the internet for social networking in the past 3 months. Other than social media, respondents also used the Internet for other recreational activities, such as watching a video or listening to music and work-related activities such downloading software or apps, to communicate with the families and peers.
- For-profit public access facilities (e.g., telecentre/cybercafé) were much more popular among men (80.6%) as a means of accessing the Internet. On the other hand, the vast majority of those who reported using non-profit public access facilities such as public libraries were women (82.5%).
- Of the respondents who have used the Internet in the last three months (43%), among them, almost all of them (>95%) had used the internet at home. Besides home, men were more likely to use the Internet at their workplace (29.5%), while women were more likely to use the Internet at schools or universities (82.5%).

## Individual Access and Use

In Bangladesh, Internet users are more likely to be young men living in urban areas. Overall, the rate of using the Internet is higher in urban areas than that of rural areas. These users are also predominantly young between 15-34 years old. In addition, the users tend to be higher educated than the non-users.

Table 1 - Profile of user and non-internet user

Location	User	Non-user
Urban	54.8%	45.2%
Rural	34.8%	65.2%
<b>Gender</b>		
Men	53.2%	46.8%
Women	34.2%	65.8%
<b>Age group</b>		
15-24 years	80.7%	19.3%
25-34 years	56.3%	43.8%
35-44 years	29.3%	70.7%
45-60 years	15.3%	84.7%
60+ years	2.7%	97.3%
<b>Educational qualification</b>		
Primary continue	16.2%	83.8%
Primary completed	20.8%	79.2%
Secondary continue	71.9%	28.1%
Secondary completed	48.5%	51.5%
Higher study continue	89.5%	10.5%
Higher study completed	70.2%	29.8%
No formal education	6.0%	94.0%
<b>Total</b>	<b>43.1%</b>	<b>56.9%</b>

As noted in the table there is a large gap in Internet use between men and women. Based on the proportion of men and women using the internet we can calculate the digital gender gap

to be 55.6% (or the extent to which a man is more likely to use the internet than a woman). This is similar to other reported gender gaps in internet use such that of the mobile internet gap calculated by the GSMA for Bangladesh (58%).<sup>1</sup>

For the non-users, factors such as a lack of technical skills needed for using the internet (65% of non-users), no perceived need to use the internet (54%), and lack of awareness of the internet in the first place (48%) are major barriers to use. There are also several large gaps in reported reasons for not using the internet between men and women, which might help explain the overall gender gap in use. For example, women (63%) were more likely to say that they saw no need to use the Internet compared to men (37%). Other factors were much less likely to be reported as a reason for not using the Internet (i.e., less than 10% of non-users). However, in some of these cases gaps also existed - e.g., 90% of women reported cultural factors are a barrier for internet use.

Table 2 - Reasons for not using the Internet (multiple selection)

Rank	Reason for not using the internet	%Total	%Male	%Female	%Gap
1	Cannot use the internet	64.7%	42.5%	57.5%	-15.0
2	No need to use the internet	54.3%	37.4%	62.6%	-25.2
3	No Idea about the internet	47.8%	36.5%	63.5%	-27.0
4	Internet is expensive	15.8%	50.2%	49.8%	+0.4
5	Internet is not easily available in the locality	15.2%	50.5%	49.5%	+1.0
6	Cultural reasons	8.8%	9.9%	90.1%	-80.2
7	No local content	5.3%	47.9%	52.1%	-4.2
8	No permission to use internet	4.8%	4.6%	95.4%	-90.8
9	No device	2.4%	53.5%	46.5%	+7.0
10	Security issues	1.8%	5.4%	94.6%	-89.2
11	No time to use the internet	1.1%	29.0%	71.0%	-42.0

Of the respondents who have used the internet in the last three months (43%), almost all of them (>95%) had used the internet at home. Men were more likely to use the Internet at their workplace (29.5%), while women were more likely to use the Internet at schools or universities (22.1%).

<sup>1</sup> GSMA (2019). The Mobile Gender Gap Report 2019. London: GSMA.



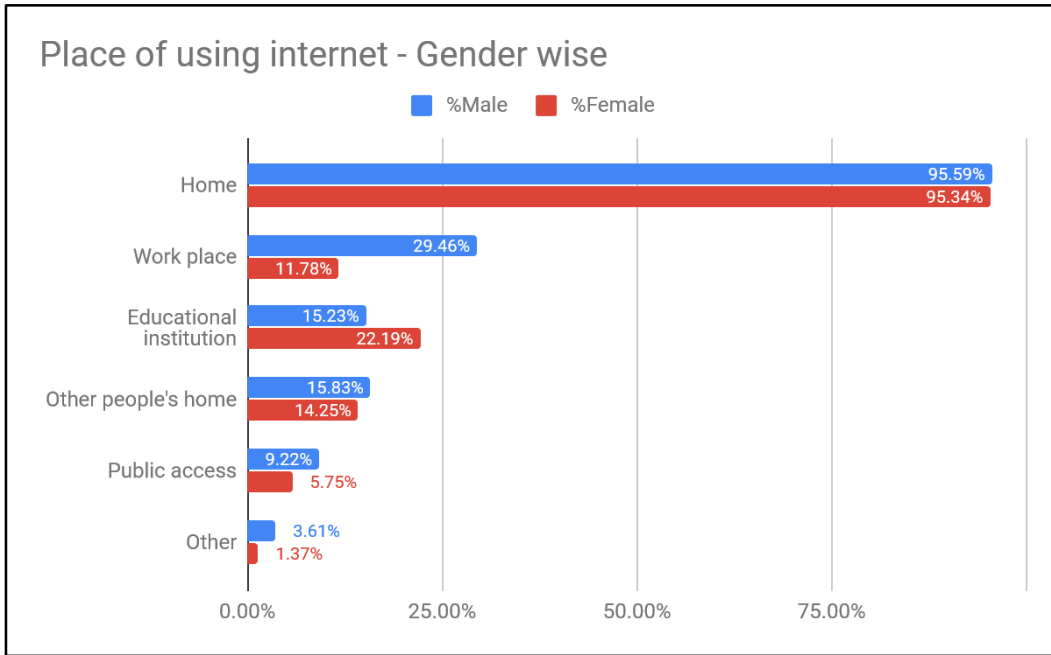


Figure 2 - Place of using the internet in the last 3 months (multiple responses)

The survey found that 78% of respondents had used the internet at least once in a day, whereas 17.4% of the respondents availed internet at least once a week but not every day.

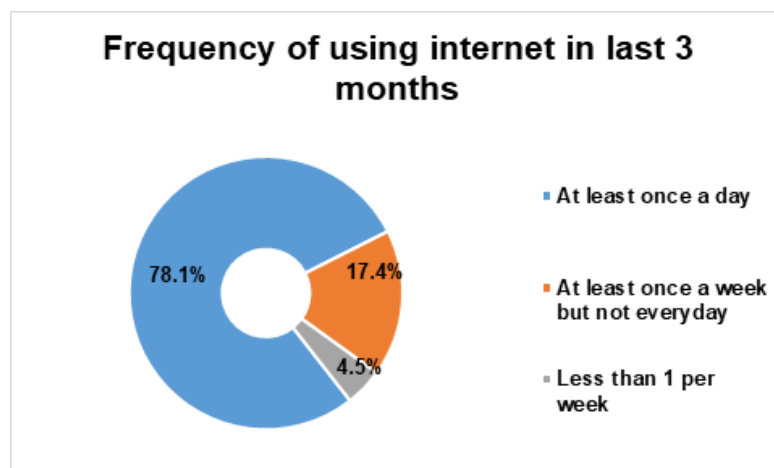


Figure 3 - Frequency of using the internet in the last 3 months

An overwhelming 92% of the respondents had used the internet for social networking in the past 3 months. Other than the social media, respondents also used the Internet for other recreational activities, such as watching a video or listening to music and work-related activities such downloading software, to communicate with the families and peers.

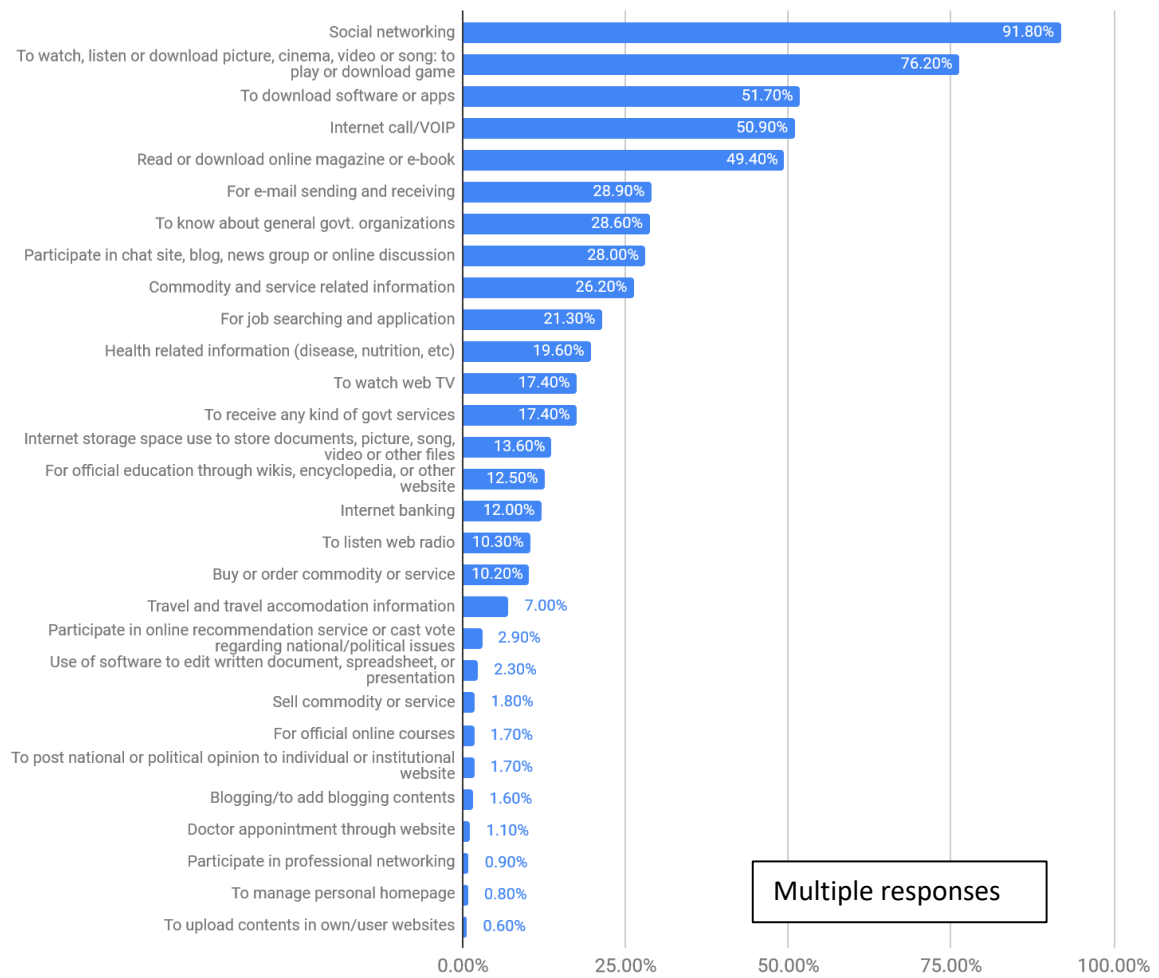


Figure 4 - Types of activities accomplished using the internet in the last 3 months (multiple responses)

The survey also shows that Facebook is the most popular social media platform, followed by Viber, YouTube, WhatsApp, and IMO in top 5.

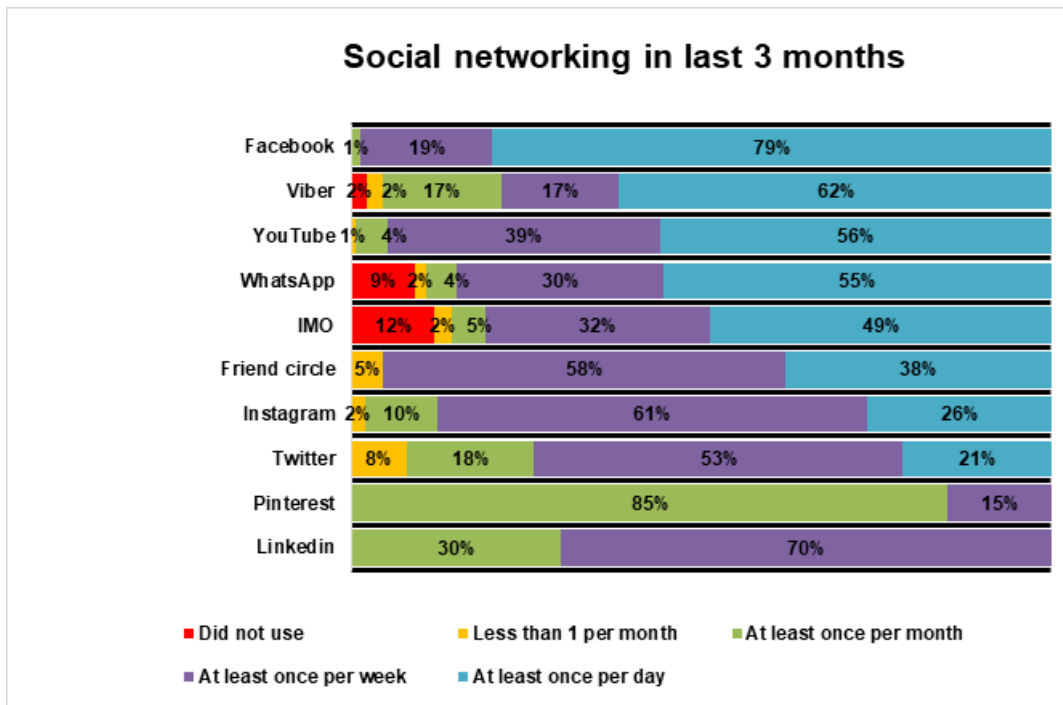


Figure 5- Social Networking Use in last 3 months

Almost all of the reported internet users (96.5%) do so via their mobile phone (using a data plan), whereas more than one-fourth of the users (28.9%) also used Wi-Fi on their mobile devices. Only 8% of respondents used desktop or laptop computers to access the internet.

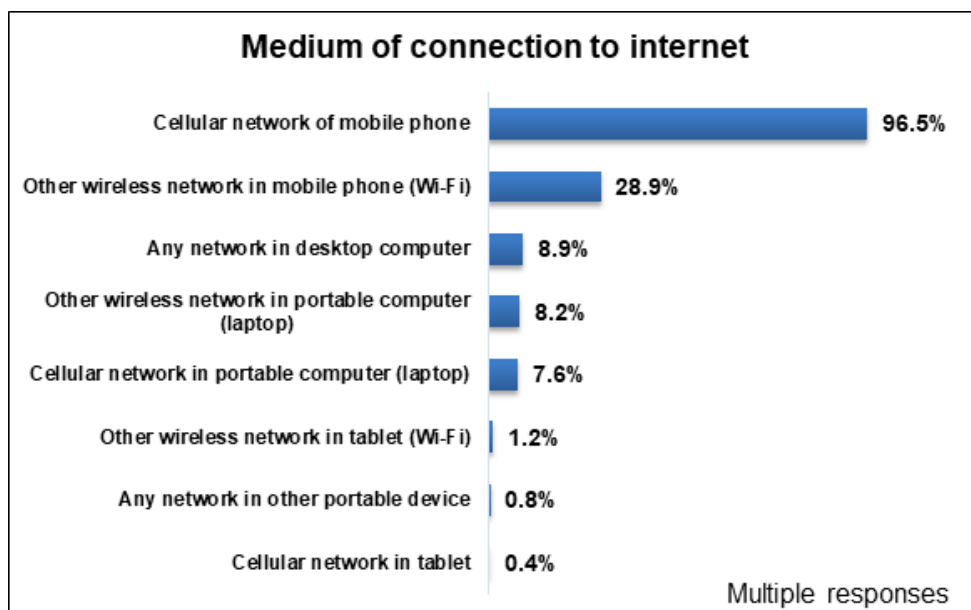


Figure 6 - Medium of connection to the internet

Among those who used the mobile phone to access the Internet, 83% reported using an unrestricted option (i.e., paid data plan where the subscriber pays the full advertised amount to access the specified data bundle, and customers can access the web without restriction until they finish the purchased amount or the data expires). Users also access restricted service so they can only access certain apps and websites (i.e., customers buy data that enable them to access primarily social media or entertainment sites at a lower price than full-cost data bundles). Finally, some mobile internet users (11%) used an option from their mobile

network operator to access certain websites and apps for free, such as Wikipedia Zero or Facebook Basics.

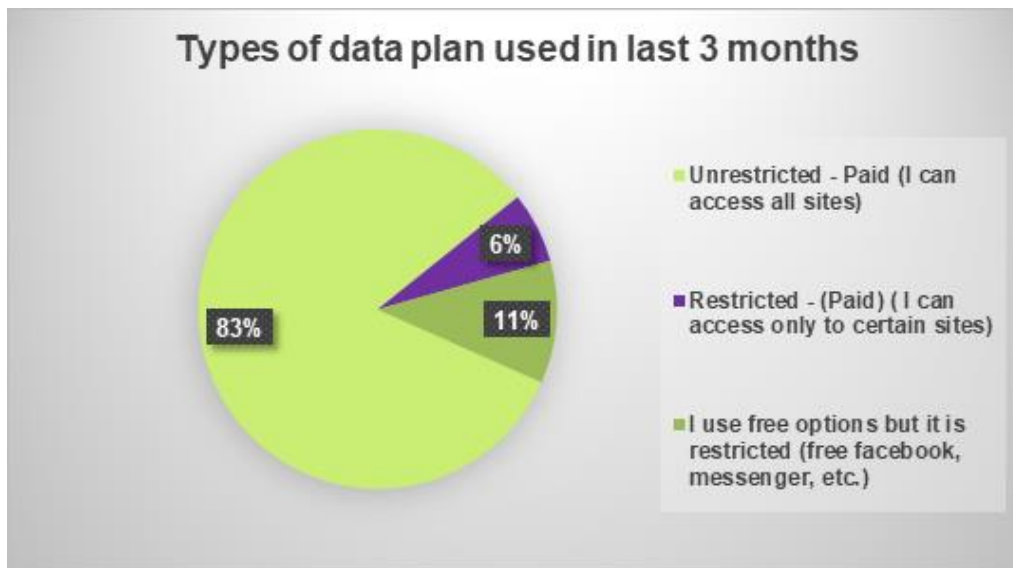


Figure 7 - Types of data plan used in the last 3 months

Nearly all of the respondents (82%) have their own mobile phone (of which 53% are men). However, most of them own just the feature phone (45%). Also, almost the same percentage of the respondents already have smartphones (41%) with few (14%) having both smart and feature phones.

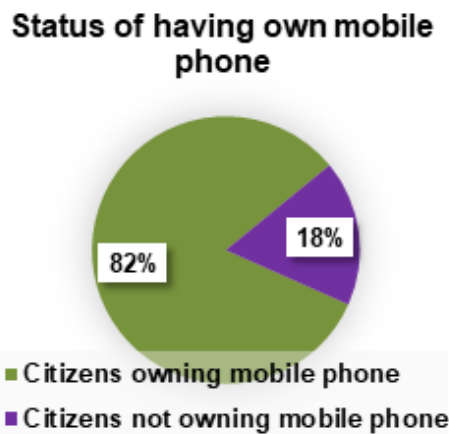


Figure 8 - Status of having own mobile phone

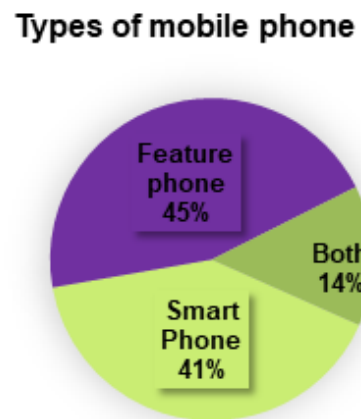


Figure 9 - Types of mobile phone

## Public Access Facilities

In contrast to the use of mobile Internet services, a low percentage of users (8%) actually report using public access facilities including telecentres, cyber cafes, libraries, etc.

Apart from the gender gap in internet use mentioned above (men are more likely to use the Internet than women), there is also a significant gender gap in accessing the Internet via public access facilities. Figure 16 shows that for-profit telecentre/cybercafé is used mostly by men (80.6%). On the other hand, 45% of respondents who accessed the internet through a public access point used public libraries for internet access, and the vast majority of these are women (82.5%).

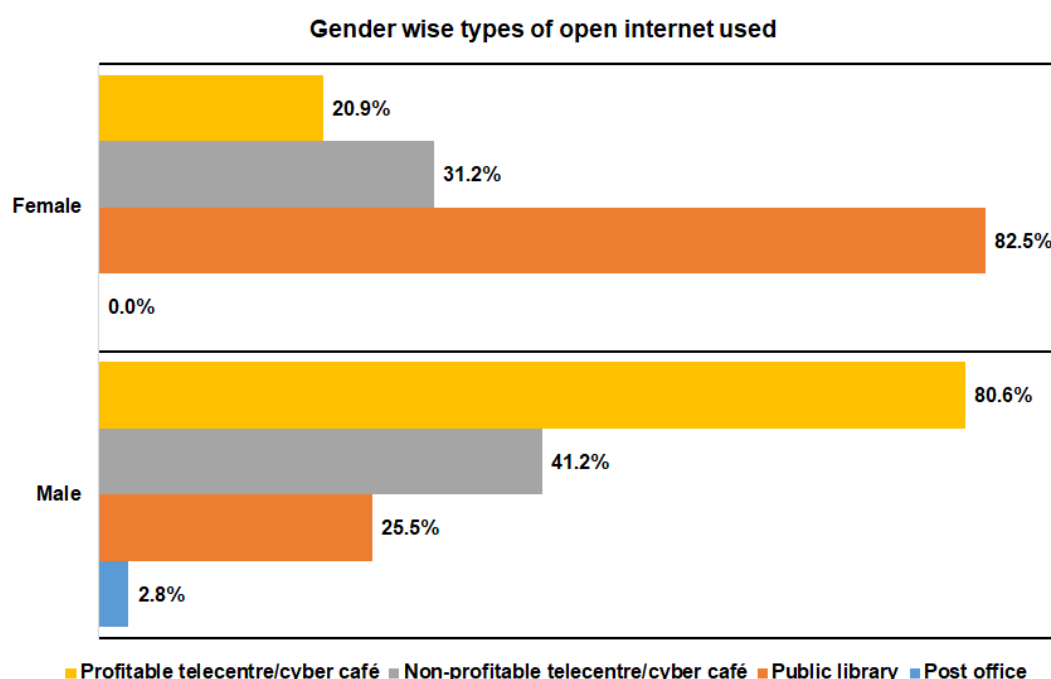


Figure 10: Types of open internet service used (multiple responses)

Public Wi-Fi hotspots are Internet access points that are provided in publicly accessible spaces such as train stations, libraries, shopping malls, etc. These can include both free and paid access. 65% of the respondents had not used public Wi-Fi in the last three months, whereas 16% of the respondents used it free of cost. 12% of respondents had used paid wi-fi while 6% had used both paid and free wi-fi. Most of those who used a free public Wi-Fi option were men (62%)

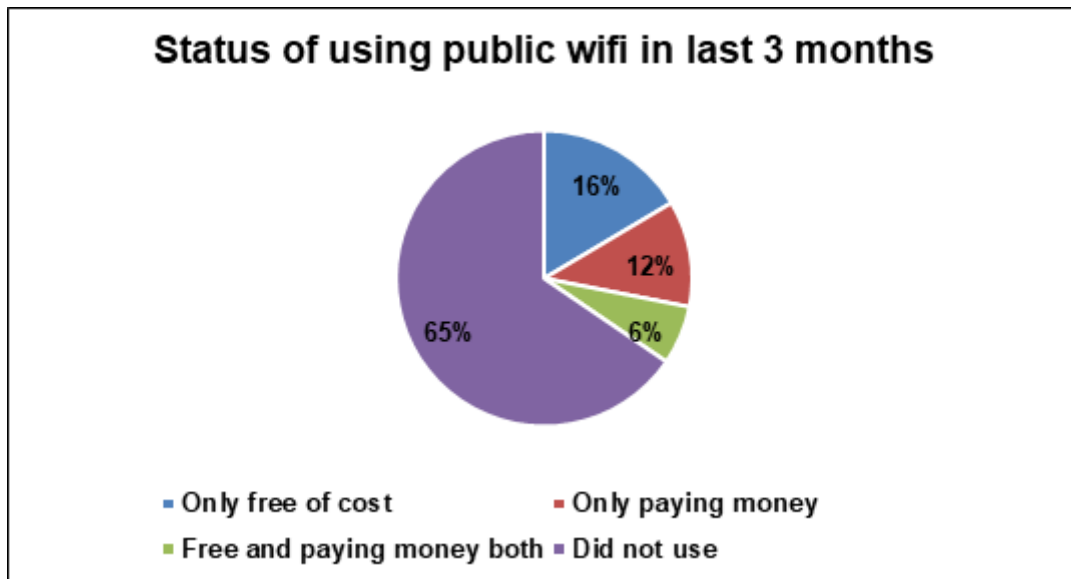


Figure 11: Status of using public Wi-Fi in the last 3 months

## Online Impacts

When asked about perceived impacts of using the Internet on their daily lives, the most common selected responses were (see Figure 12).

- “I have better access to educational services and learning opportunities”
- “Using the internet makes me spend too much money”
- “I have better access to entertainment (games, music, radio, etc.)”

While access to information and entertainment are common responses, of note is that affordability is considered an important issue for those who use the Internet. This is in contrast to those who do not use the Internet (see Figure 1 above).

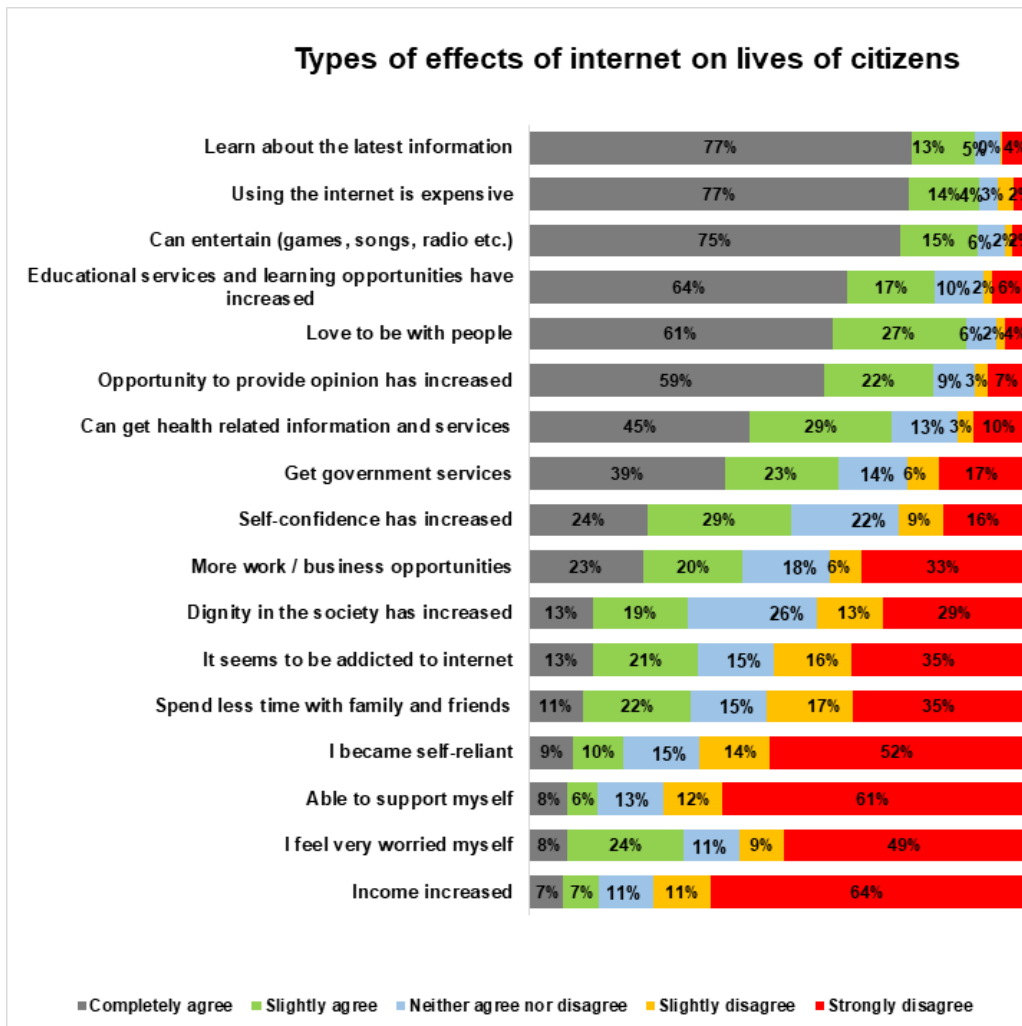


Figure 12 - Effects of using the internet

The majority of respondents reported that they have not experienced some form of online harassment, threat, or attack. Of the 33% that have experienced some form of harassment or attack, women are more likely to report being harassed, receiving offensive language, and direct threats of violence. Alternatively, men are more likely to report being hacked or having their data/personal information shared online without their consent (see Figure 13).

## Percentage of Respondents facing different types of Online Harassment

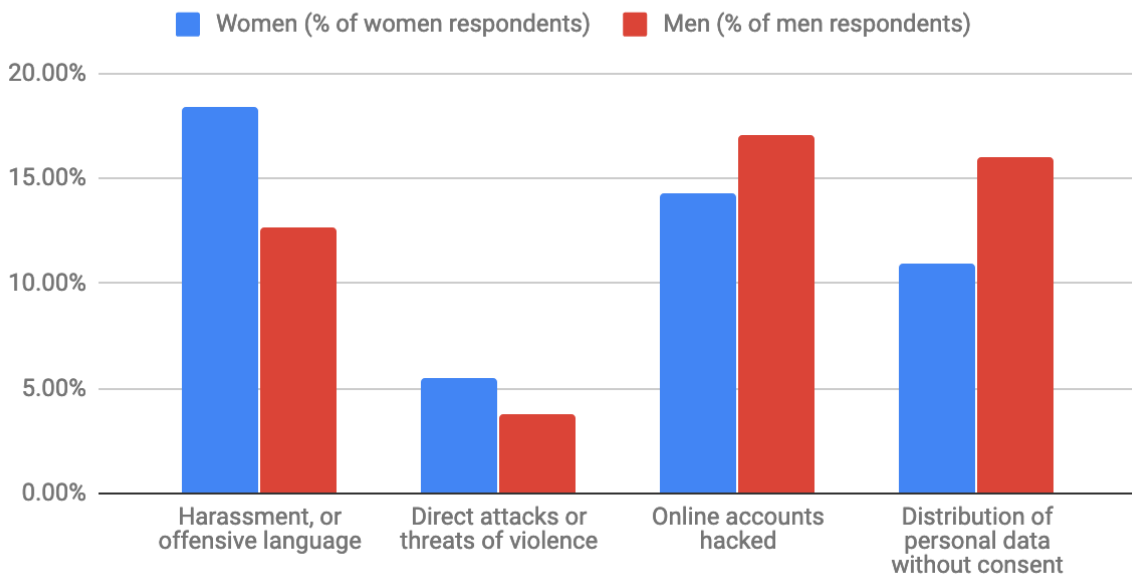


Figure 13 - Percentage of Respondents who have experienced online harassment/attacks

When asked to rate their level of awareness of online security and privacy issues, only 16.6% of the respondents are highly aware about online security, while 6.1% are not aware at all. Alarming, nearly half of the respondents (53%) do not know about online security risks and threats. A majority of the latter are women (60%).

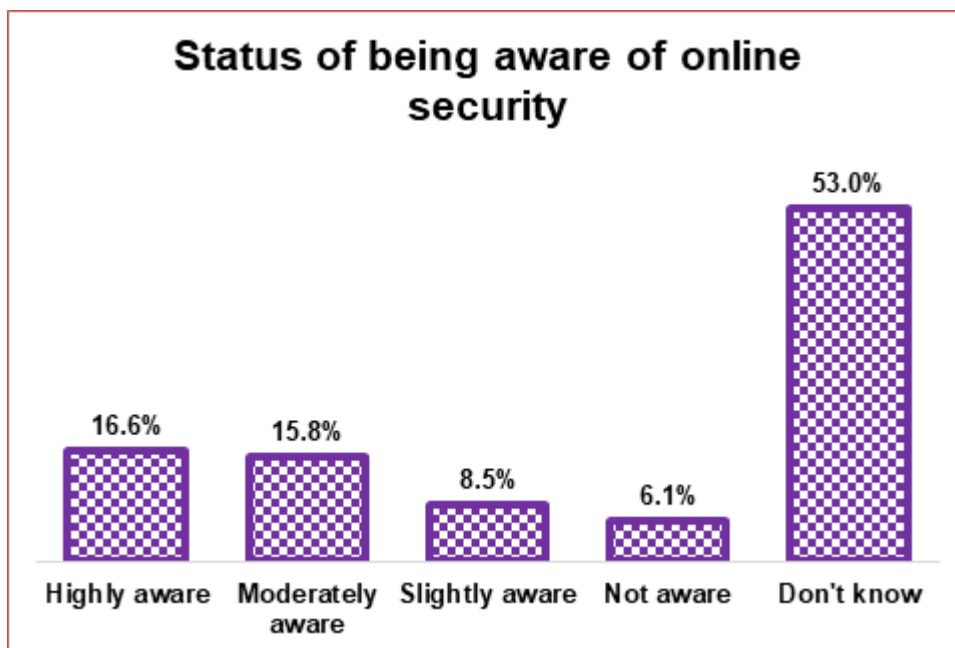


Figure 14 - Status of being aware of online security



## Recommendations - Gaps in Access and Use for Policy Interventions

As Bangladesh undergoes rapid socio-economic transformation with its [GDP growing at 6% per annum](#)<sup>2</sup> over the last decade, substantial challenges remain to realise the country's [Vision 2021](#) and in building [Digital Bangladesh](#)<sup>3,4</sup>, which aims to accelerate country's transformation using the ICTs. Much of these challenges are related to the regulatory frameworks, technical infrastructure, and human capacity. The 2016 [Networked Readiness Index](#) (NRI) of the World Economic Forum, which assesses the impact of ICT on the competitiveness of the nations of the world ranked Bangladesh in 122<sup>th</sup> out of 139 countries surveyed (score: 3.3 out of max 7). Among the lowest scores are on the political and regulatory environment, skills, individual usage of ICTs, and business usage of Internet. More specifically, Bangladesh ranks 41st (out of 61 countries surveyed) on the 2018 [Affordability Drivers Index \(ADI\)](#). This is the same place compared to what Bangladesh earned in the revised 2017 Affordability Drivers Index, indicating the slow pace of policy change across the country.

In light of the findings of this national household survey, below are the key policy recommendation for each of the key priorities area of Digital Bangladesh.

### Developing human resources ready for the 21st century

The study shows that the lack of technical know-how (65% of non-users), awareness (48%), and relevancy (54%) are the main reasons for lower use of the internet in Bangladesh. Such issues are even more critical for women as compared to men, especially for those above 35 years and with low educational attainment. As shown by a study conducted by the World Wide Web Foundation<sup>5</sup>, similar findings appear to be the common theme across the Global South. It is critical for Bangladesh to develop and implement effective programs for digital skills training.

To tackle this issue, the government will need to find an effective, interactive way to teach digital skills and literacy in resource-constrained settings. ICT training programmes should also be made widely available to older age groups (for example, through jobs centres, libraries, workplaces and community organisations).

Attention must also be paid to the development of relevant local content to increase adoption rates among users, e.g., E-services for filing of taxes, health services and information in local languages, e-commerce opportunities employing local developers, and education resources, among others. Given the constraints, services should be delivered using a mix of video and audio options instead of only text based content. Government, the private sector, and civil society can work together to initiate and implement digital skills education programs for all ages, by focusing on empowerment, digital based opportunities and respect for user rights.

### Making the Most of Public Access

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<sup>2</sup> <https://data.worldbank.org/country/bangladesh>

<sup>3</sup> <https://cpd.org.bd/bangladesh-vision-2021/>

<sup>4</sup> <https://goo.gl/fLFxEm>

<sup>5</sup> [http://webfoundation.org/docs/2015/10/womens-rights-online\\_Report.pdf](http://webfoundation.org/docs/2015/10/womens-rights-online_Report.pdf)

Only a small percentage of Internet users actually report using public access facilities to go online (8%). This is concerning given that public access facilities can be an important vehicle to support the almost 60% of persons who are currently not using the Internet. In addition, the current level of mobile broadband affordability (i.e., the price of 1GB of data relative to average monthly income) was 2.35% in 2018<sup>6</sup> and 2.24% in 2017<sup>7</sup>. While these levels are close to the 2% threshold recommended by the UN Broadband Commission, they suggest that mobile internet services may actually be getting more expensive and public access facilities may be even more important in getting new users online to help meet the government's goal of universal access.

More than 4,500 Union Digital Centres<sup>8</sup> have been launched in the country to facilitate access to public services for underserved citizens. To improve the effectiveness and service delivery of these centers, the government should secure affordable access at all centers, improve awareness of these centers and their ability to meet the internet service needs of the population,<sup>9</sup> including digital skills and training support.

### **Maximizing impact, while reducing online threat**

While access to the internet provides ample opportunities of continuous learning, employment, and more, users also face the threat of harassment when going online. A study on women's rights online by the Web Foundation<sup>10</sup>, suggested solutions in dealing with gender-based violence online. These include legislative measures to protect rights and safety, training on dealing with gender-based online harassment for law enforcement, parents, teachers, students, and general public, including appropriate channels to report abuse (including in local languages), as well as ensuring a quick and effective response to these complaints.

### **Addressing the gender gap**

If the government is to achieve its vision 2021 target and complete its aim of getting all the people of Bangladesh online, then it will have to address the gender gap highlighted in this research (i.e. only 34% of women reported using the Internet compared to 53.2% of men). The results point to several reported reasons for a lack of use among women. In particular women were significantly more likely to point to factors such as not seeing the need to use the Internet, not having permission to use the internet, or being concerned about security online. These factors point to potential areas of focus that will be more effective in reducing the gender gap in use.

In addition, there was a clear pattern in terms of preferences for different types of public access options between men and women: men were more likely to use cyber-cafes and women more likely to use public libraries. Again, this points to opportunities to reduce the gender gap by, for example, establishing partnerships with libraries to design women-centered services and programs that can support and increase women's Internet use.

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<sup>6</sup> <https://a4ai.org/affordability-report/report/2018/>

<sup>7</sup> <https://a4ai.org/affordability-report/report/2017/>

<sup>8</sup> <https://a2i.gov.bd/publication/union-digital-centers-in-bangladesh-present-status-and-future-prospects/>

<sup>9</sup> [A4AI\\_AR18\\_Bangladesh\\_Screen\\_AW.pdf](#)

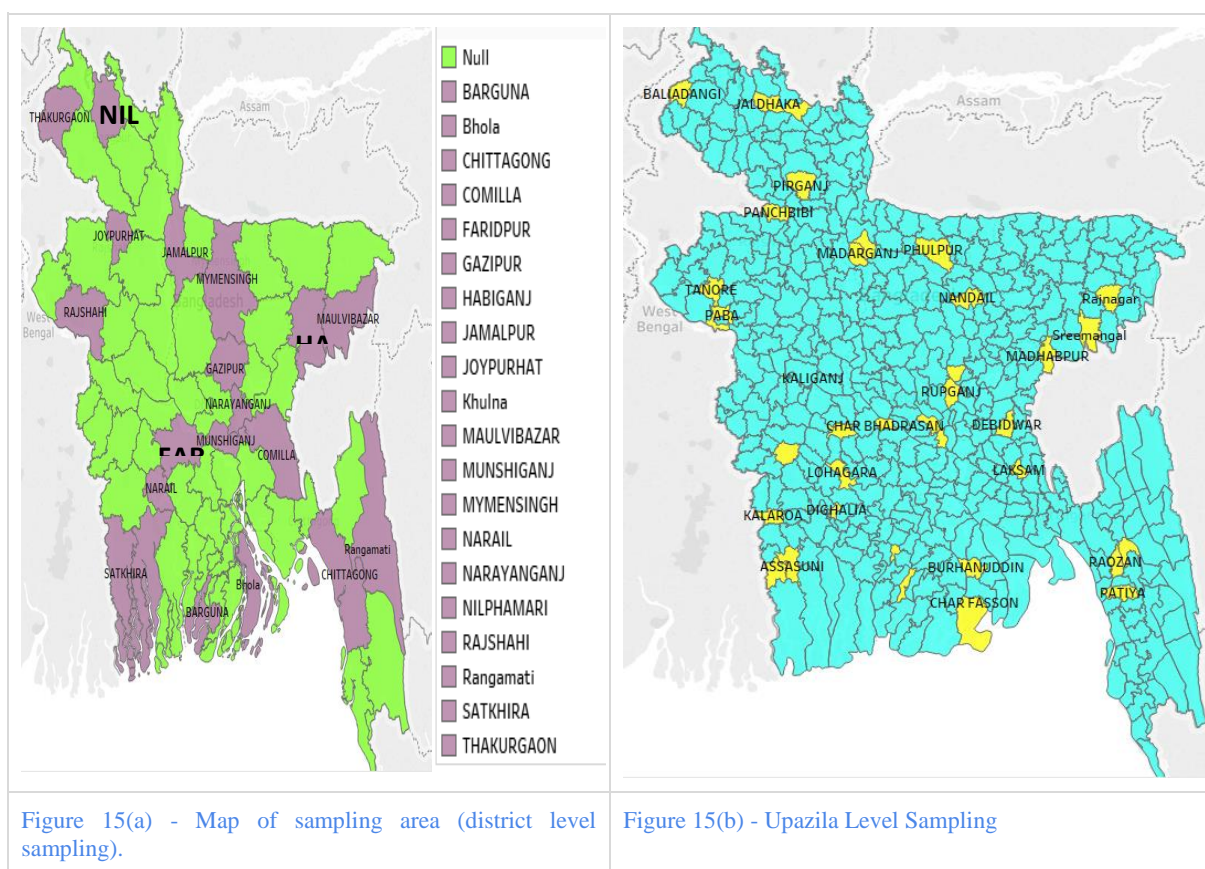
<sup>10</sup> [http://webfoundation.org/docs/2015/10/womens-rights-online\\_Report.pdf](http://webfoundation.org/docs/2015/10/womens-rights-online_Report.pdf)

Finally, it is also worth noting the fact that both men and women face harassment or threats online, albeit in different ways (women are more likely to be harassed; men are more likely to be hacked). Further research can clarify the reasons behind these patterns, and help protect users online.

## Annex 1 - Methodology

Bangladesh consists of 8 Divisions which include 64 Districts. For administrative purposes, the district is divided into Upazila (sub-districts), formerly called thana, which then further divided into union councils (in rural areas) and municipal/city councils (in urban areas). Union/municipal/city councils are the smallest local government unit in Bangladesh. These bodies are divided into wards. In the rural area, usually, one village is designated as a ward.

In total, 20 out of 64 districts were randomly selected with probability proportional to the number of districts in each division (Figure 1). The sampling selection uses a stratification method to group the selected districts in Bangladesh into urban and rural regions.



20 Upazilas/thana were randomly selected from urban areas and 30 Upazilas from rural areas. Within rural areas, one union or municipalities were chosen randomly per Upazila. Two wards per union/municipalities were selected randomly. Finally, systematic random sampling was done to select 20 households from each ward, resulting in a total of 800 households for the urban area and 1200 households for the rural (2000 in total - see Table 1).

Table 2 - Sample size

District	Region	Upazila/Thana	Union/municipalities	Ward (2 wards per union)	Household (20 households/ward)
20	Urban	20	20	40	800

	Rural	30	30	60	1200
	Total	50	30	100	2000

The sampling methodology was designed to ensure representation of the target group (population aged 15-65) at a national level with the 95% confidence level and margin of error +/- 2.

### **Post-stratification Weighting**

Although based on the above we strove to ensure a representative sample, the preliminary results indicated that there was an over-representation of young men. To address this we added a post-stratification weight that modified each case by comparing the gender and age distribution (i.e., 15-24, 25-34, 35-44, 45-60, and 60 and above) in the sample to that of the population.

## Annex 2 - Demographic Characteristics of Survey Respondents

This section presents the key indicators of the survey

### *A. Individual level*

Of the respondents, (53%) are female and the rest (47%) are male. According to the Government of Bangladesh's data portal, the gender distribution for the population aged 15 and above is 49.46% male and 50.54% female.

Table 3 - Gender, marital status and age of respondents

Variable	Category	Total Sample	National Stats
Gender	Female	53%	50.54% <sup>11</sup>
	Male	47%	49.46%
Marital status	Married	67.4%	62% <sup>12</sup>
	Single	25.3%	32%
	Widow/widower	6.8%	5%
	Separated	0.3%	1%
Age group	15 - 24 years	27.1%	28% <sup>13</sup>
	25 - 34 years	22.4%	22%
	35 - 44 years	17.9%	19%
	45 - 60 years	19.3%	20%
	60+ years	13.1%	10%

It appears that of the total respondents, 25.2% have completed secondary level education, whereas, 16.6% of the respondents are pursuing higher studies, which is in line with the national statistics. According to the report on Sample Vital Registration System 2017, Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning, the distribution of education attainment of household population is Primary complete (14%), primary incomplete (20%), Secondary complete or higher (21%), Secondary incomplete (23%), and None (22%)

<sup>11</sup> (<http://www.data.gov.bd/dataset/distribution-population-age-residence-sex-and-division-2012>)

<sup>12</sup> Sample Vital Registration System 2017, Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning,

<sup>13</sup> (<http://www.data.gov.bd/dataset/distribution-population-age-residence-sex-and-division-2012>)

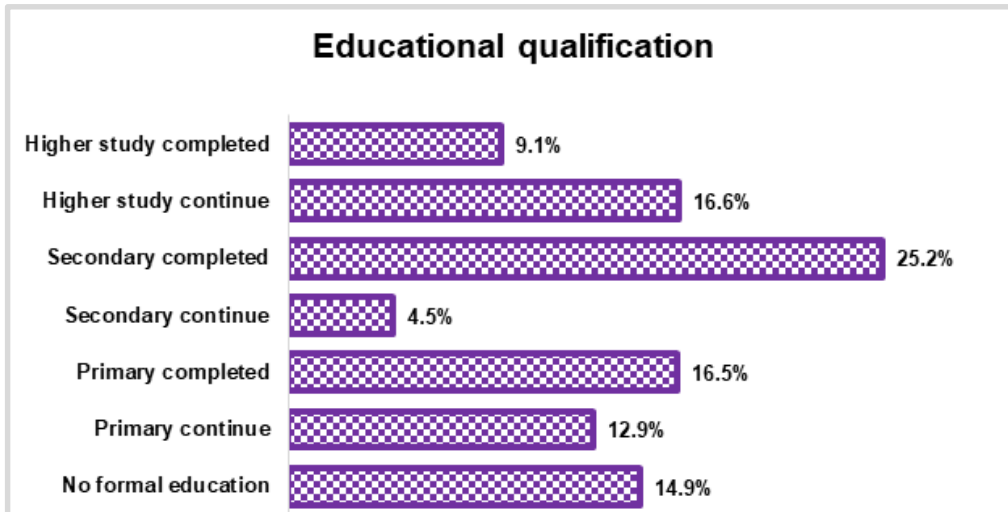


Figure 2: Educational qualification of the respondents

With regards to the occupation, 30.7% identified themselves as a housewife, 18.7% as a student, and 13.2% as self-employed while 11.9% identified them as a salaried employee.

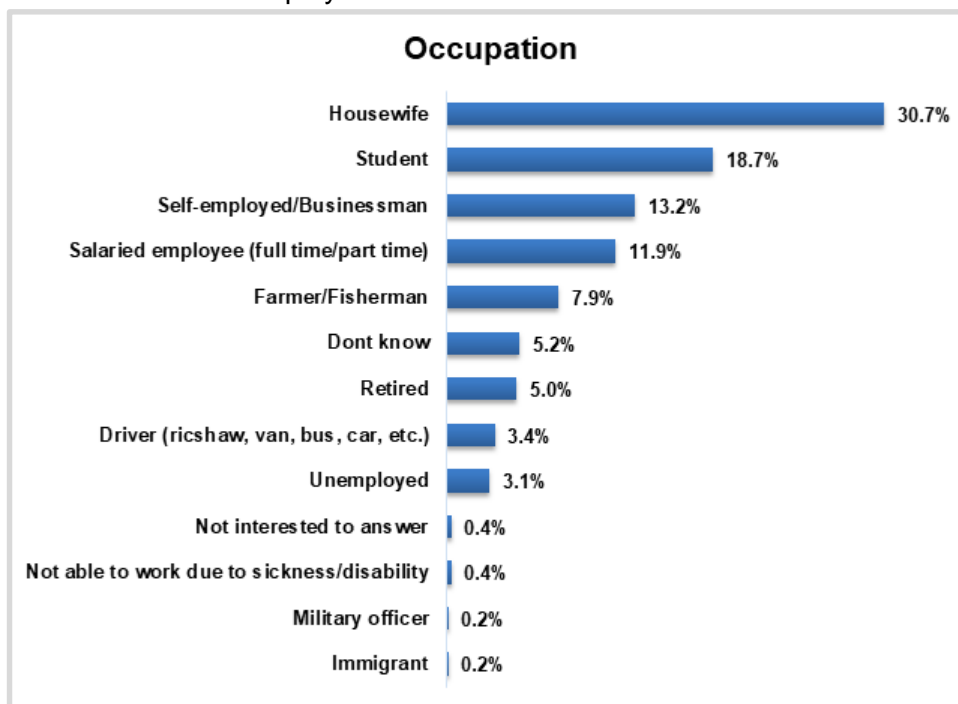


Figure 16 - Occupation of the respondents

### ***B. Household level***

At the household level, Figure 4 shows that a quarter of the respondents (25%) live in 5-member households while 20% of the respondents belong to 4-member households. According to Household Income and Expenditure survey 2016 the average household size is 4.06.

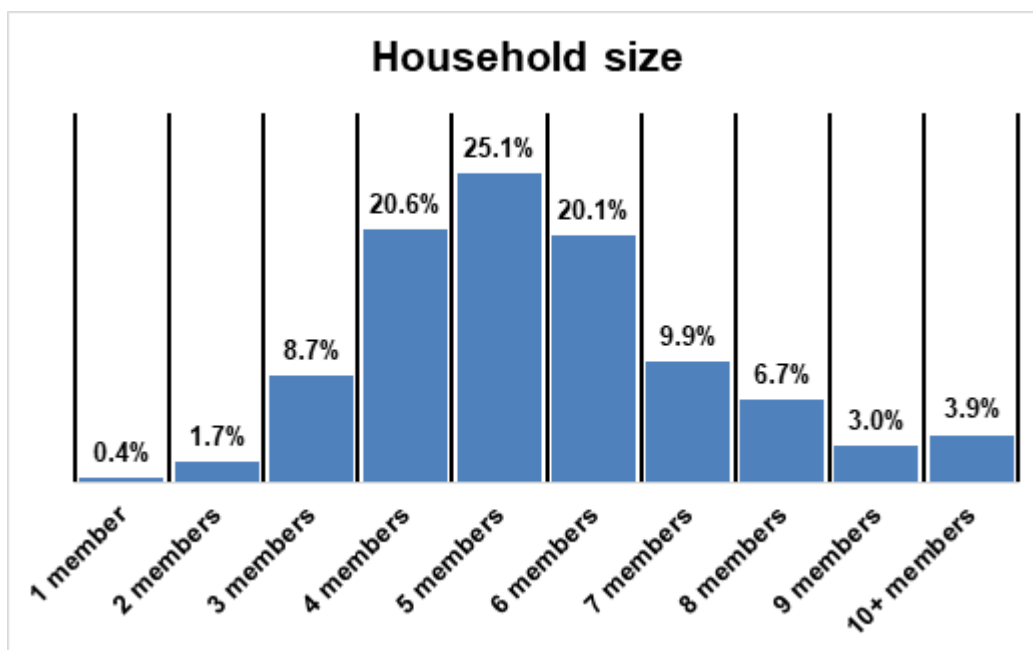


Figure 7 - Household size

The survey reveals that majority of the respondents (70%) have a family member aged 15 years or younger. This high number of population will soon enter the economy with demands for new and improved services. Only 14% of the surveyed respondents have a computer in their households.

Table 4 - Gender, marital status and age of respondents

Variable	Category	Total sample
Having children < 15yrs old	Households with children <15 years old	69%
	Households without children <15 years old	31%
Electricity	Households with electricity facility	92%
	Households without electricity facility	8%
Own computer (desktop, laptop, tablet, etc.)	Households with computer	86%
	Households without computer	14%

Almost all the respondents surveyed (92%) have electricity supply at home. According to Household Income and Expenditure survey<sup>14</sup> in 2016, percentage of households having electricity problem is 75.92%.

<sup>14</sup> <http://catalog.ihsn.org/index.php/catalog/7399>



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REPORT AND OVERVIEW  
OF MAIN RESULTS

2018 - 2019



**A4AI** ALLIANCE FOR  
AFFORDABLE INTERNET