An Internship
On

Digital Access between Rural and Urban Areas in Bangladesh

This report is submitted to the Department of Accounting, Faculty of Business Studies, Hajee Mohammad Danesh Science and Technology University, Dinajpur for the partial fulfillment of the degree of Master of Business Administration (MBA) in Accounting and Information Systems.

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Acknowledgement

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I would also like to thanks all those marvelous people who have contributed very much to this work. Finally, I owe to my beloved parents specially my mother who opened my eyes of knowledge and for their blessing and continuous inspiration during the entire period of my study in the university

……

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Certificate of Supervisor

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I wish him every success in life.

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Certificate of Co-supervisor

I hereby declare that the concern paper on "Digital Access between Rural and Urban Areas in Bangladesh" is a work done by Md. Nure Alam Siddique Student Id: 1905854, MBA in Accounting and Information Systems, Department of Accounting, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200. He has completed this report under my co-supervision and submitted this report as the required fulfillment of the degree of Master of Business Administration (MBA) in Accounting and Information Systems at Hajee Mohammad Danesh Science and Technology University, Dinajpur.

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Student's declaration

I hereby declare that the report is the terminal formalities of the internship and thesis program for the degree of MBA in Accounting and Information Systems, Department of Accounting, Faculty of Business Studies at Hajee Mohammad Danesh Science and Technology University, Dinajpur which is compact professional progress rather than specialized. This report has prepared as per academic requirement after successfully completing the thesis program under the supervision of Dr. Shaikh Mostak Ahammad, Professor, Department of Accounting, Faculty of Business Studies, HSTU, Dinajpur. It is my pleasure and great privilege to submit my report titled "Digital Access between Rural and Urban Areas in Bangladesh" as the presenter of this report; I have tried my level best to get together as much information as possible to enrich the report. I believe that it was a fascinating experience and it has enriched both my knowledge and experience. I believe everyone is not beyond of limitation. There might have problems regarding lack and limitation in some aspects and also some minor mistake such as syntax error or typing mistake or lack of information. Please pardon me for that mistake and clarify these of my further information on those matters.

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Abstract

This paper is about to find the scenario and causes of the digital access gap between rural and urban areas in Bangladesh. It is based on the primary data collected from a random field survey on the topic. 200 people from different parts of Bangladesh responded on our questionnaire and expressed their views. Of them 100 were from rural and 100 were urban areas. After analyzing the data collected from survey, the author finds a huge digital access gap between rural and urban areas in Bangladesh. All are in favor of urban areas. Author also finds that the uneven asset distribution, lack of infrastructure, gender discrimination, poor logistic support, lack of uninterrupted power and internet supply, lack of awareness etc. are the responsible for these inequalities. All discussed in the findings section of this paper. This paper expresses some suggestions to get rid of it. Suffice it to say that this paper will give an eye to the policy makers to recognize the problem effectively and take spectacular steps to ensure digital inclusion in Bangladesh.

Key words: Digital inclusion, UDC, Digital access, Internet access, Digital equality etc.

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CHAPTER 1
INTRODUCTION

Generally, it is believed that digital technology is a great equalizer. Since its emergence it has been changing our life dramatically. It has made our life easy. Now, the world has become a global village due to the blessing of digital technology.

Although it was supposed to be an equalizer of the society some spectacular step is yet to be taken to come all the people under the umbrella of the digital technology in Bangladesh. Bangladeshi Government has an unwinking eye on ensuring equal digital access among the people all around the country. To ensure digital inclusion Bangladesh government has different regulatory authorities under the ministry of Post Telecommunication and information technology and other departments of the government relating digital inclusion.

- Bangladesh telecommunication regulatory commission (BTRC)
- Bangladesh Telecommunication Company limited (BTCL)
- Bangladesh submarine cable company limited (BSCCL)
- Directorate of Information and Communication Technology (DICT)
- Bangladesh high tech park authority (BHTPA)
- Bangladesh computer Council (BCC)
- Digital Security Agency (DSC)
- Access to information (a2i)

By well recognizing the importance of digital technology Bangladesh developed ICT policy with a view to achieve middle income nation status by 2021. Making Digital Bangladesh is one of the goals of Bangladesh and a special emphasis has been given to perceive the vision 2021.Under the vision Bangladesh has already implemented a lot of project and many more is yet to be done.

Ongoing COVID 19 pandemic has given a new dimension to the people's thinking and show us how vulnerable we are in regarding ensuring equal access of digital technology throughout the country. Though the rate of digital access has increased, the comprehensive digital access gap has increased. For post pandemic economic recovery of Bangladesh accessibility of digital technology will play a game changer role. Because the appeal and necessity of internet

and virtual platform in every sectors of life like virtual classroom, virtual office, virtual meeting, virtual book, virtual business etc. have been increased.

With the increasing of the appeal of digital technology digital inequalities are increasing at a rapid pace even if government has a special eye on digital inclusion. Many different factors are responsible for it. This paper is aim to find the real scenario of digital inclusion and to address the factors effecting the digital inclusion.

CHAPTER 2

LITERATURE REVIEW

This part of the study briefly shows that the previous work related to digital inequality. Siddiquee & Islam (2020), in a study entitled by Understanding the First and Second Digital Divides in Rural Bangladesh Internet Access, Online Skills, and usage showed that overall 37% of the respondents have access to the internet in rural Bangladesh and an estimated 33.6% of the respondents have internet access through their own mobile devices. Van Dijk (2006), in a study named Digital Divide Research, Achievements and Shortcomings focused three question relating to the title. 1. Types of inequality to make the concept 'Digital Divide' clear 2. Resource wise ICTs inequality 3. Existing and new types of social inequality in information society.

In another study Babar (2017) in his study named Digital divide: concepts and reality in Bangladesh cited that digital divide confronts the people and nations. He also cited there the statistics for house satisfactorily the respondents are with the government ICTs service.For providing the underline factors of creating digital inequality in Bangladesh Islam & Inan (2021) presented that lack of digital investment in rural areas, not having digital skill and expertise to use IT for business or in earning money are the responsible for digital divide in rural areas. 20% people stated first one as the main problem and 27% people stated the second one as the main problem to ensure digital equality.

Rashid (2016) explored gender inequality in different countries like Bangladesh, Brazil, Chile, Philippine, Ghana. The study found that the rate of women digital exclusion in Bangladesh in higher than that of other countries. Gillwald (2017), said that developing infrastructure for broad brand, introducing public policies are not quite enough to reduce digital inequality in African region. His recommendations were reduction the cost of digital service, improving the local content and applications, removing illiteracy, and implementation of national skill improvement plans.

Badiuzzaman, et al., (2021), mentioned that in spite of having majority of student's access to ICT only 32.5% students could attend online classes. 34.2% of the students marked data prices as the main for not attending online classes. 39.4% students mentioned poor network

infrastructure as the main barrier to attend online classes. Khadiza & Ullah (2020), examined that quite often unnecessary documents are asked by the 'Union Digital Centers (UDSs). That causes a great hassles in receiving services.

Rahman, et al.,.(2020), demonstrated lack of infrastructure, gender discrimination, poor logistic support, lack of uninterrupted power and internet supply, lack of awareness, coordination gap as the challenges of UDCs. Hoque (2020), argued that UDCs are giving access to ICT training and creating entrepreneur. At the same time he found that cost of being entrepreneur is still not affordable to many of the people considering the socio economic condition in rural areas. He also found that UDCs also contributing to gender equalities and individual empowerment but lack of related skill still put back from the aim of the program. Hoque, et al., (2022) claimed that 44% people come UDCs to avail there birth certificate, and 10% for NID. They also claimed that 37% respondent praised the services of UDCs.
They argued that UDCs are giving access to ICT training and creating entrepreneur. At the same time he found that cost of being entrepreneur is still not affordable to many of the people considering the socio economic condition in rural areas. He also found that UDCs also contributing to gender equalities and individual empowerment but lack of related skill still put back from the aim of the program

By taking the above literature as a ground, this paper is set to move forward to fulfill the main objective of this paper to find the difference between the rural and urban areas in Bangladesh in respect of digital access. The previous papers relating to the topic works as a pathway of this paper. This paper is mostly based on the primary data but previous works work here as a reference and pathway of this paper.

CHAPTER 3
METHODOLOGY OF THE STUDY

This paper was prepared based on data collected through personal interview and questionnaire and analysis of the collected data. For better understanding we took help from different previous papers relating to the research title. Dividing the sample taking area into rural and urban areas the required data was collected. Here, the rural areas mean the countryside areas that are situated outside the city corporations or municipalities in Bangladesh. The areas within 'Union Council' are rural areas. Urban areas mean the areas within municipalities and city corporations.

3.1. Nature of study: Exploratory

3.2. Sources of data: Primary source and secondary source

3.3. Primary source:

a. Sample mode: Randomly selected
b. Sample method: Convenient sampling
c. Sample instrument: Structured questionnaire for the respondent
d. Sample size: 200

3.4. Secondary source:

a. Different journals and website worked as the secondary data sources
b. Statistical data organizing technique through MS Excel was used to analyze the collected data.

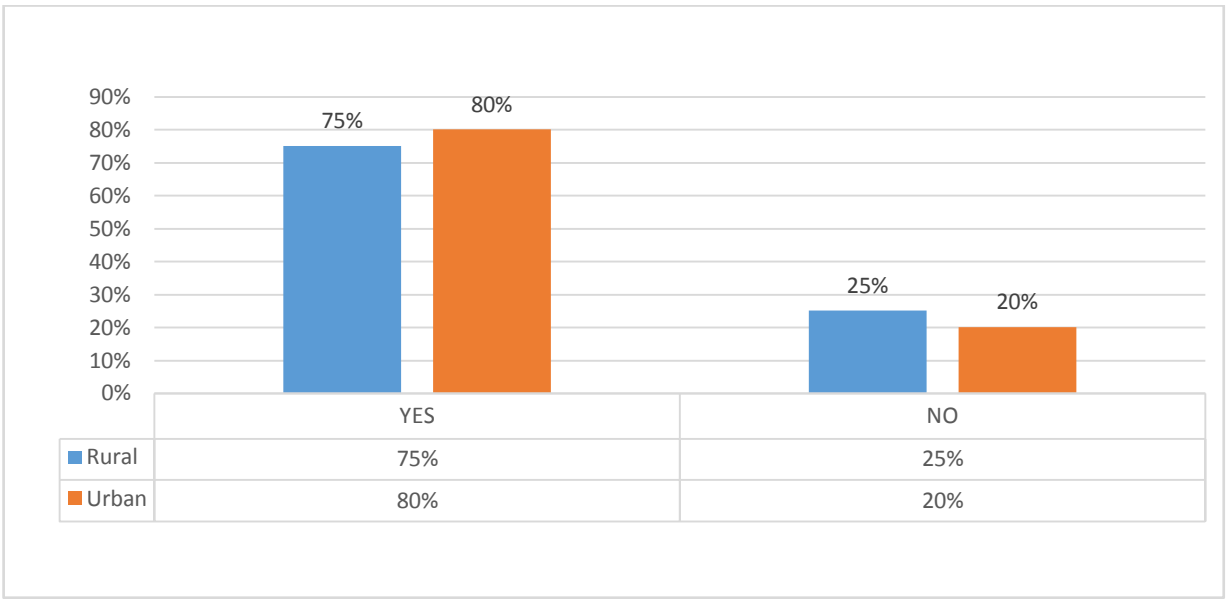
CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

01. Have you any digital communication device?

Table-4.1. Access to digital communication device

	Yes	No
Rural	75	25
Urban	80	20



Source: Field survey

Figure 4.1. Access to digital communication device

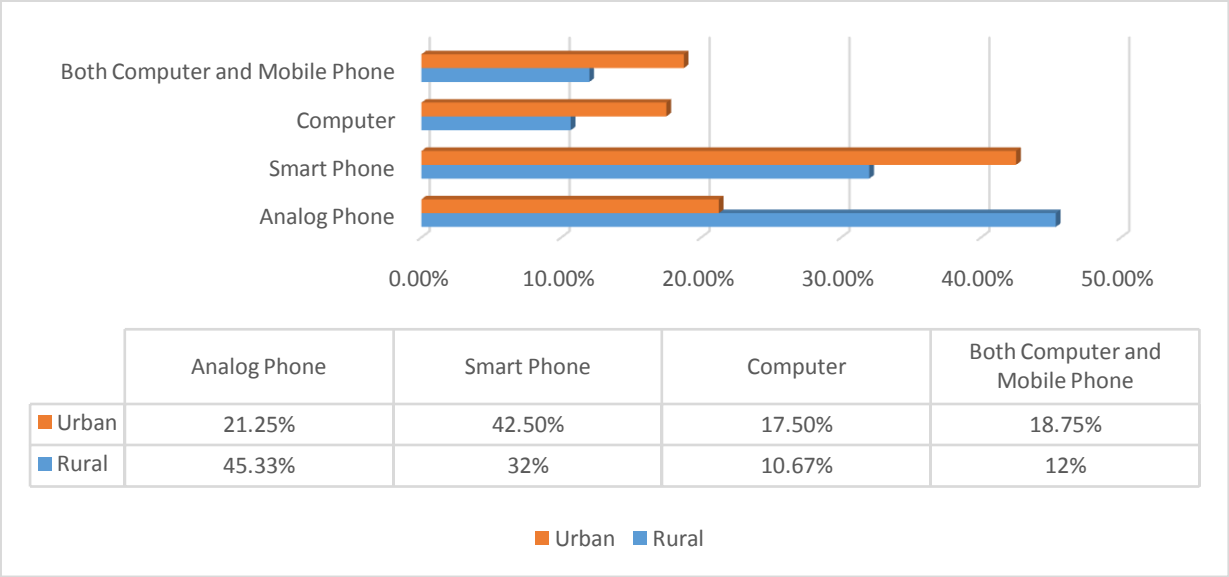
This survey was conducted among 200 people from different places of Bangladesh. Among them 100 people were from urban areas and another 100 were from urban areas. Here, In Table 4.1 and figure 4.1 we see that among the 100 respondents from rural and urban areas respectively 75 and 80 respondents respectively have digital access and another 25 and 20 people haven't any digital access respectively. That shows that in rural and urban areas 75% and 80% respondents respectively have digital access and another 25% and 20% haven't any digital access.

Table 4.1 and figure 4.1 show that urban people have 5% more digital access than that of rural people. It may causes of the difference of socio economic condition and excess centralization policy of the government of the People' Republic of Bangladesh.

02. Which devices do you have?

Table 4.2. Types of digital device

	Analog Phone	Smart Phone	Computer	Both Computer and Mobile Phone
Rural	34	24	8	9
Urban	17	34	14	15



	Analog Phone	Smart Phone	Computer	Both Computer and Mobile Phone
Urban	21.25%	42.50%	17.50%	18.75%
Rural	45.33%	32%	10.67%	12%

Source: Field survey

Figure 4.2. Types of digital device

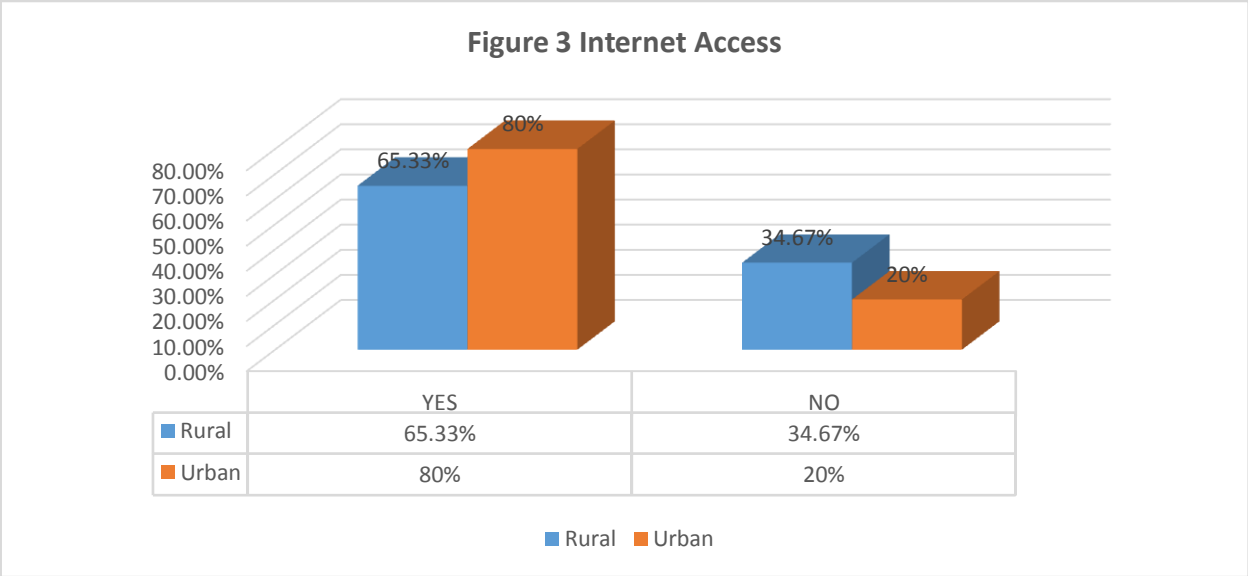
Table 4.2 and figure 4.2 show that in rural areas 45.33% , 32%, 10.67%, 12% of 75 respondents who have digital access use analog phone, smart phone, computer and both computer and mobile phone respectively whereas in urban areas 21.25%, 42.50%, 17.50%, 18.75% respondents use analog phone, smart phone, computer, both computer and mobile phone respectively.

Here, clearly we find that the uses of analog phone in rural areas is more than that of urban areas, and in case of smart phone , computer and both computer and mobile phone we see the opposite one. It may causes of socio economic gap and access to educational gap between rural and urban areas.

03. Do you have internet access on your device?

Table 4.3. Internet Access

	Yes	No
Rural	49	26
Urban	64	16



Source: Field survey

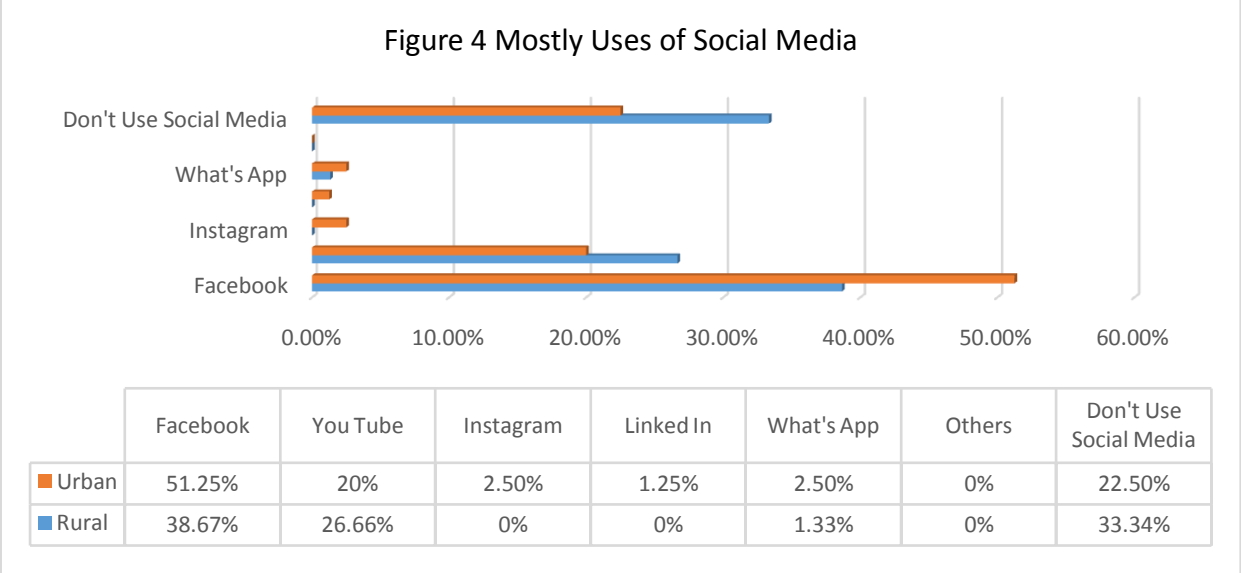
Figure 4.3. Internet Access

Here, In Table 4.1 and figure 4.1 demonstrate that among the 75 and 80 respondents who respectively have digital access from rural and urban areas 49 and 64 respondents respectively have internet access and another 26 and 16 people respectively haven't any internet access. That shows that in rural and urban areas 65.33% and 80% respondents respectively have internet access and another 34.67% and 20% respectively haven't any internet access.

04. Social Media you use most?

Table 4.4.. Mostly uses of social media

	Facebook	You Tube	Instagram	Linked In	What's App	Others	Don't Use Social Media
Rural	29	20	0	0	1	0	25
Urban	41	16	2	1	2	0	18



Source: Field survey

Figure 4.4. Mostly uses of social media

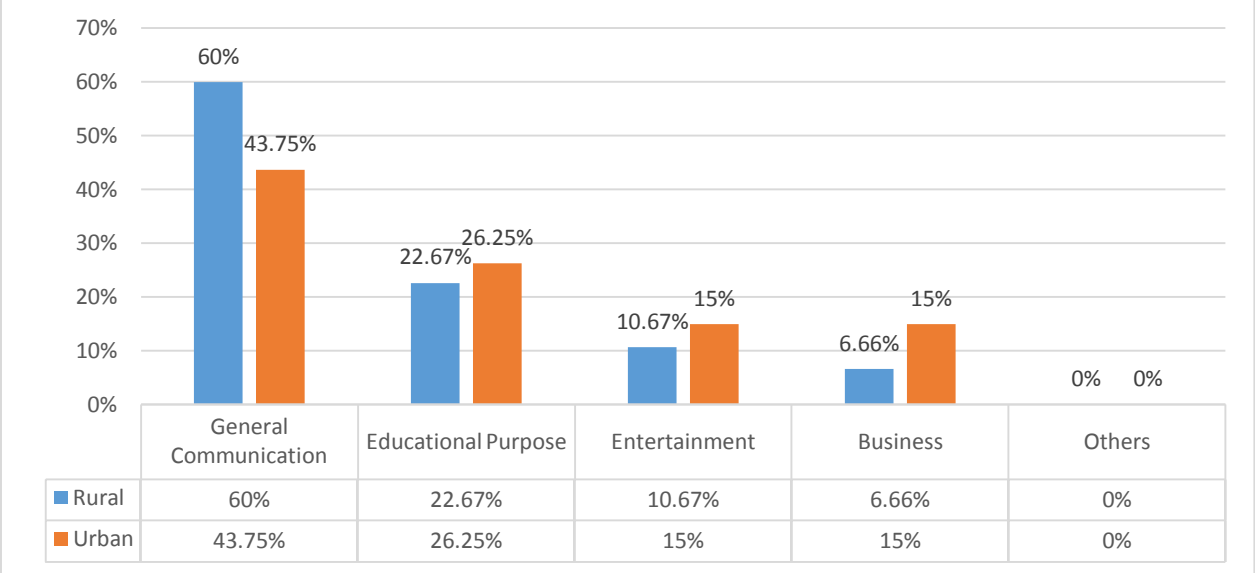
Table 4.4 and figure 4.4 represent that among the 75 respondents in rural areas who have digital access 34.67% mostly use Facebook, 26.66% mostly use You Tube, 0% use Linked In and Instagram, 1.33% mostly use What's App, and 22.50% don't use any social media. On the other hand in urban areas respondents mostly use Facebook, You Tube, Instagram, Linked In, What's App, others social media 51.25%, 20%, 2.5%, 1.25%, 2.50%, 0% respectively and 22.50% respondents who have digital access in urban areas don't use social media.

We also show that urban people use Facebook the most than that of rural respondents whereas rural respondents use You Tube the most than that of the urban people. The percentages of urban respondents having digital access but don't use social media is less than that of rural area. Having more smart phone access and internet access put urban respondents ahead than rural respondents

05. Main purpose of using digital communicational device?

Table 4.5. Purpose of using digital communication device

	General Communication	Educational Purpose	Entertainment	Business	Others
Rural	45	17	8	5	0
Urban	35	21	12	12	0



Source: Field survey

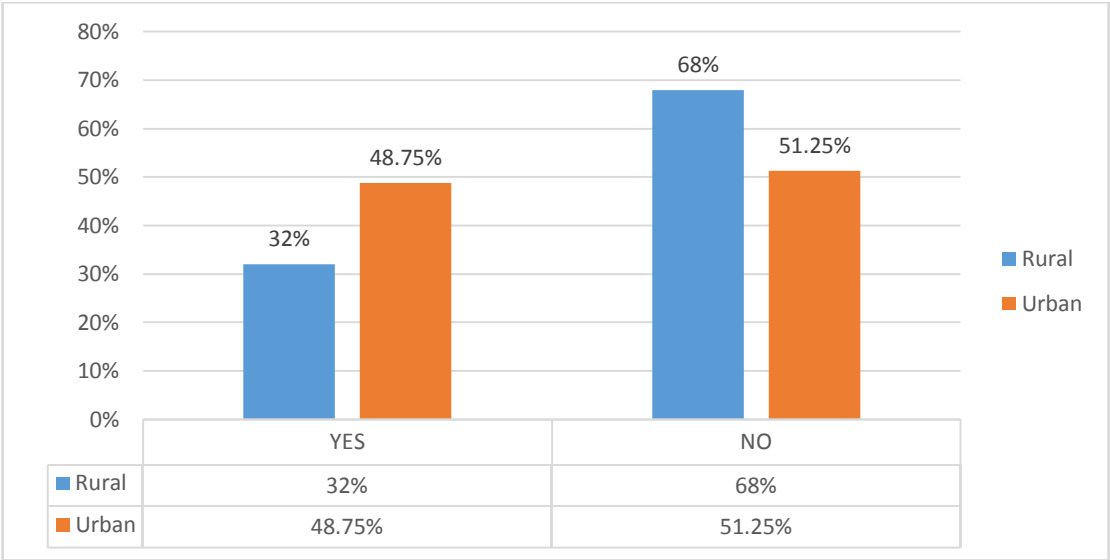
Figure 4.5. Purpose of using digital communication device

Here, table 4.5 and figure 4.5 show that 60% rural people use digital communication device/ devices for general communication whereas 43.75% urban people use it for the same purpose. 22.67%, 26.25% people from rural and urban areas respectively use digital communication device for educational purpose. 10.67%, 15% people from rural and urban areas respectively use it for entertainments. 6.66%, 15% people from rural and urban areas respectively use it mostly.

06. Have you completed any training program or joined any online educational course over the internet?

Table 4.6. Digital device for educational purpose

	Yes	No
Rural	24	51
Urban	39	41



Source: Field survey

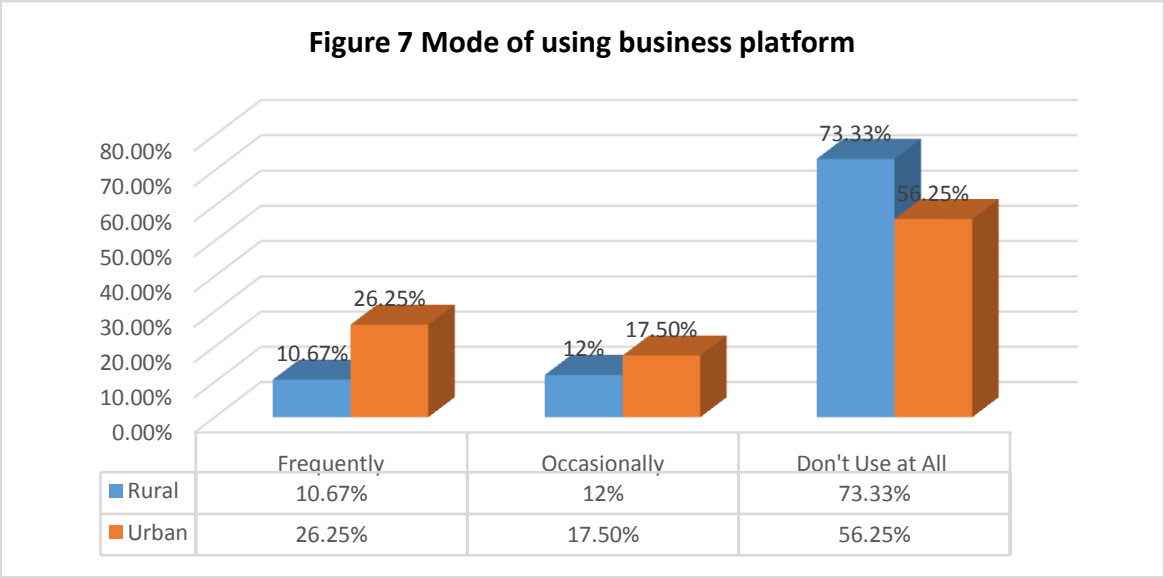
Figure 4.6. Digital device for educational purpose

Here, table 4.6 and figure 4.6 show that more urban people use digital device for educational purpose (48.75%) than rural people (32%). 51.25% people in urban areas have not participated in any training program or joined any online educational courses over the internet. The situation in more worsens in rural areas. 68 % people of rural areas have not participated in any training program or joined any online educational course over the internet.

07. Mode of using online business platform?

Table 4.7. Mode of using business platform

	Frequently	Occasionally	Don't Use at All
Rural	8	9	58
Urban	21	14	45



Source: Field survey

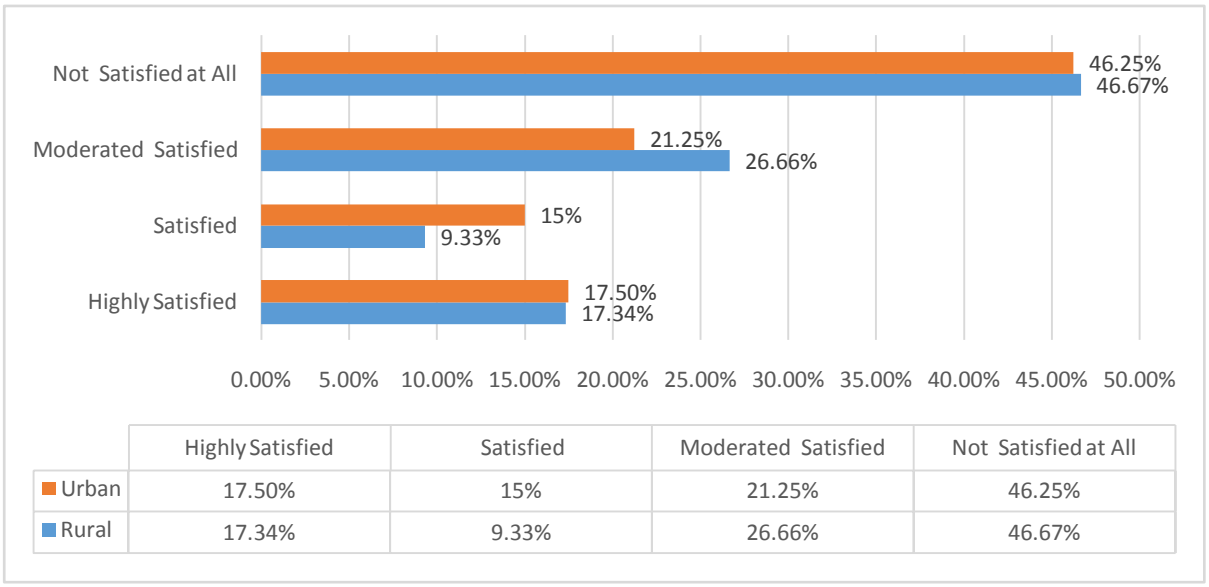
Figure 4.7. Mode of using business platform

Table 4.7 and figure 4.7 show that 10% rural people use online business platform frequently, 12% people do it occasionally, and a big amount of people, 73.33% do not use online business platform. 26.25% urban people use online business platform frequently, 17.50% people do it occasionally, and 73.33% people do not use online business platform in urban areas.

08. How much do you satisfied with the services of government local digital service provider?

Table 4.8. Satisfaction level of govt. local digital service provider

Highly Satisfied	Satisfied	Moderated Satisfied	Not Satisfied at All
13	7	20	35
14	12	17	37



Source: Field survey

Figure 4.8. Satisfaction level of govt. local digital service provider

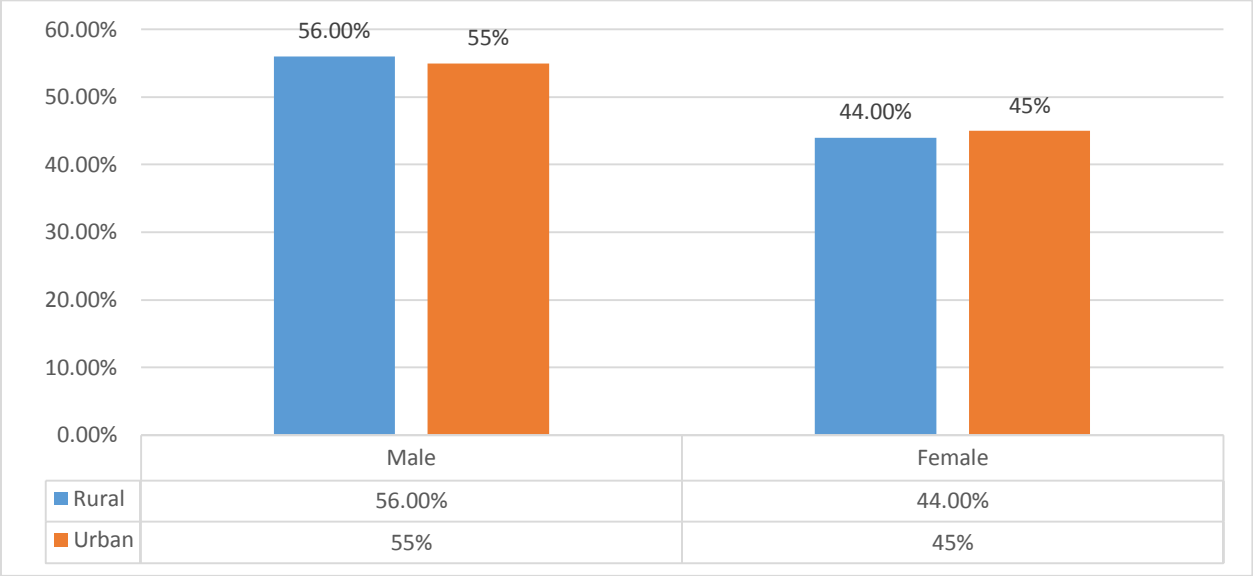
Here, table 4.8 and figure 4.8 show that in urban areas 17.50% people are highly satisfied and this rate in rural areas is 17.34%. Similarly, 15%, 9.33% people are satisfied in urban and rural areas respectively. 21.25% and 26.66% people are moderated satisfied in urban and rural areas. The rate of people who are not satisfied at all in rural areas is higher than that of urban people. In urban areas 46.25% people and in rural areas 46.67% people are not satisfied to the services of govt. local service provider.

We can say by the above discussion that people in urban areas comparatively more satisfied by the se the services of the services of govt. local service provider than that of rural people. Poor infrastructure and poor internet speed may be responsible for this situation in rural areas.

09. Gender wise digital access?

Table 4.9. Scenario of gender wise digital access

	Male	Female
Rural	50	25
Urban	44	36



Source: Field survey

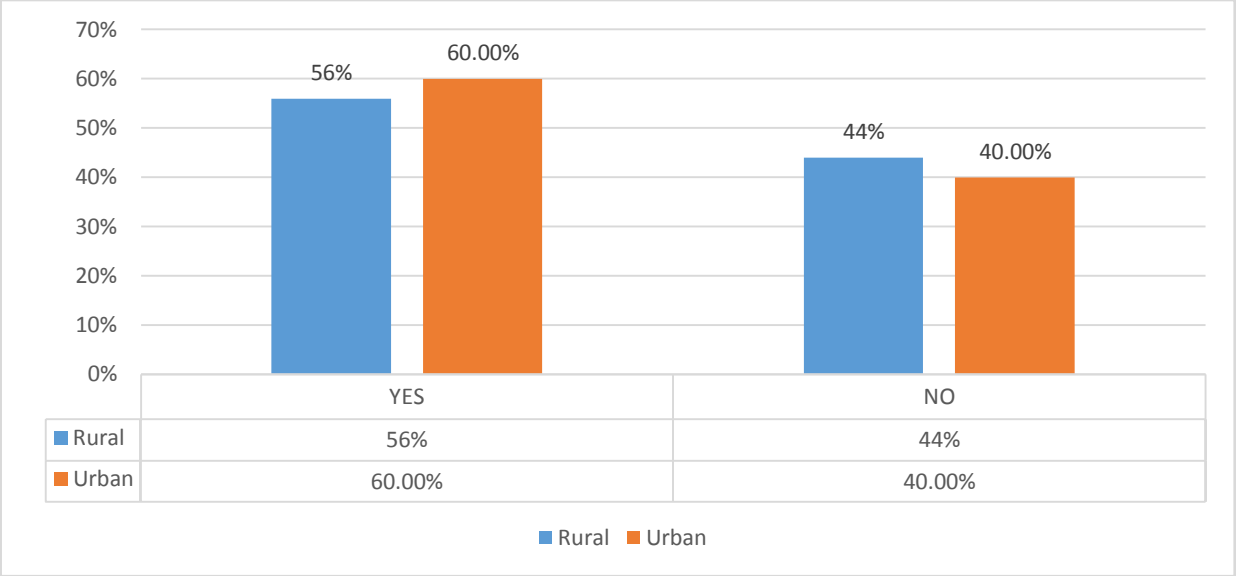
Figure 4.9. Scenario of gender wise digital access

Here, table 4.9 and figure 4.9 show that in urban areas 55% male have digital access and Female access rate is 45% that is 10% less than that of male. These table and figure also show that in rural areas 56% male have digital access and female access rate is 44% that is 12% less than that of male.

10. Do you believe that digital technology has reduced social inequality around you?

Table 4.10. Belief about reduction of inequality by digital access

	Yes	No
Rural	42	33
Urban	48	32



Source: Field survey

Figure 4.10. Belief about reduction of inequality by digital access

Here, table 4.10 and figure 4.10 show that in urban areas 60% people who have digital access believe that digital technology has reduced social inequality around them and rest of them do not believe so. Apart from that in rural areas 56% people who have digital access believe that digital technology has reduced social inequality around them and rest of them do not believe so.

CHAPTER 5
FINDINGS AND SUGGESTIONS

5.1. Findings

This research was concluded to explore the causes and barriers of ensuring digital inclusion and digital equality in Bangladesh. This paper found that the comprehensive digital access in rural areas is less than the access in urban areas. This work has marked some causes for this unequal digital access.

Uneven asset distribution: This paper found that in rural areas 75% people have digital access and 25% haven't. One the other hand 80% people in urban areas have digital access and another 20% haven't any digital access. One of the main causes is unequal asset distribution between the areas. More marginalized people live in rural areas than urban areas. Most of the wealth situated in urban areas. That is why the per capital income in rural areas is far less than urban areas.

Lack of Infrastructure: The infrastructure relating to digital technology in rural areas is one of the barriers to ensure digital inclusion there. Although government has launched 'Union Digital Service Center (UDSC)' in 4501union in 11 November, 2010 and currently there have 6686 UDSCs all over the country spectacular steps are yet to take to strengthen the UDSCs for ensuring digital equality. Digital Municipality Services System (DMSS), High tech parks, City Digital Centers (CDCs) has spectacular impact to come all the urban people in the umbrella of digital access.

Gender Discrimination: A study (TIB 2017) found that most of the entrepreneurs who received 'The Fundamental Training on Computer were male. 91.1% entrepreneur was male and 86.1% were female. The scenario is better in the case of urban areas. Most of the female who come from conservative family haven't any interest in receiving service from male entrepreneurs. In case of private sector the scenario is more worsen in urban areas.

Poor logistic support: In this study it is found that, in urban areas 46.25% people and in rural areas 46.67% people are not satisfied to the services of govt. digital centers. One of the causes for doing so is poor logistic support. In some places, although people have willingness to take digital service, due to lack of logistic they are forced to go city or town to enjoy digital service.

Lack of uninterrupted power and internet supply: In rural areas uninterrupted electricity and internet supply is far behind.

Lack of awareness: Urban people are more aware of the importance, scopes and opportunities of digital device but rural people are comparably less aware regarding this. Rural people are more confused by the negative side of the digital devices.

Coordination: Some time coordination gap between the stakeholders causes a great threat against ensuring digital inclusion.

In rural areas 44% people and in urban areas 40% people believe that digital technology has reduced social inequalities in the society. They thought unequal digital access itself create inequalities in the societies. And the 60% people in urban areas and 56% people in rural areas believe that digital technology has reduced social inequalities in the society. Their logic is that everyone whether she/he is female or male, rich or poor, black or white currently can enjoy a lot of government and private services by clicking a button.

5.2. Suggestions

It is well established that digital technology has a significant role to improve the socio economic condition of the remote people. In spite of having special eye of the government, there have some loopholes in ensuring digital equality in rural and urban areas. This study suggests the following suggestions.

- More advertisement about UDCs should be organized to aware the rural people regarding the ICT service.
- Spectacular step should be taken to minimize the gender gap and ensured women empowerment.
- UDCs should be enriched by proper logistic so that they can smoothly serve the rural people. Freelancing opportunities should have in rural areas.
- The area of service should be increased. As most of the people in rural areas directly or indirectly engaged on agriculture, agriculture based services should be increased.
- The cost of internet should be affordable and availability of internet should be ensured.
- Ensuring uninterrupted electricity supply is a must.
- Hi Tech Park should also established in rural areas besides the urban areas.
- Dividing the areas into sectors ICTs Training program should be organized for each sector.
- Special initiatives might be taken for increasing women entrepreneur so that it can be easy to bring a big part of the population under the umbrella of the digital technology.

CHAPTER 6

CONCLUSION, POLICY IMPLICATIONS AND FUTURE WORK

6.1. Conclusions:

Taking the best results from latest DTs or ICTs a collective action is required. Public Private Partnership (PPP) can be the best option to reach the technology to the grass level. This study focuses on the area wise digital divide in Bangladesh. This study focuses on the access in internet, access in digital education systems, access in online business platform, satisfaction level of government digital service providers like UDCs, DMSS, DMSS etc. there have a mixed reaction among the services of the government digital service providers. The above suggestions can be followed to adopt the people with new ICTs. The studyfaced some limitations and problems during the data collecting period from the people at different places of Bangladesh. The survey was conducted in only 2 divisionsof Bangladesh out of 8 and as this survey was conducted amid COVID 19, we had limitations to access the people properly due this pandemic related restrictions. Some people had lost their patience as there was a lot of questions. There was a language barriers as the questionnaire was in English some could not understand it properly without translating it into Bangla. Some Terms of the questionnaire regarding digital technology were not understood by some people.

Without remuneration some people were not interested to attend the survey.Despite having the above limitations the author tried his level best to conduct the study effectively and efficiently.

6.2. Policy implications

This paper will help the policymakers regarding the digital technology and digital inclusion in private and government sectors to recognize the term digital gap properly and to find the way of get rid of it. The findings section help them to understand and recognize the problem and the suggestion section would be a great help to them to take decision to ensure digital inclusion in effective and efficient ways.

6.3. Future work:

This study represented the comparison between the scenario of digital access in rural areas and urban areas in Bangladesh. Due to the COVID 19 pandemic the sample size was limited. This work can be extended with having adequate sample size. This study has more focus on the geographic dividend or geographic digital gap. It also can be extended by recognizing the other dimensional gap such as gender gap, etc.

REFERENCES

Siddiquee, M. S. H., & Islam, M. (2020*). Understanding the First and Second Digital Divides in Rural Bangladesh.*

Babar, Z. M. (2017). Digital divide: concepts and reality in Bangladesh. *Journal of Business*, 2(2), 24-33.

Van Dijk, J. A. (2006). Digital divide research, achievements and shortcomings. *Poetics*, 34(4-5), 221-235.

Islam, M. N., & Inan, T. T. (2021). Exploring the fundamental factors of digital inequality in bangladesh. *SAGE Open*, 11(2), 21582440211021407.

Rashid, A. T. (2016*).* Digital inclusion and social inequality: Gender differences in ICT access and use in five developing countries. *Gender, Technology and Development*, 20(3), 306-332**.**

Badiuzzaman, M., Rafiquzzaman, M., Rabby, M. I. I., & Rahman, M. M. (2021). The Latent Digital Divide and Its Drivers in E-Learning among Bangladeshi Students during the COVID-19 Pandemic. *Information*, 12(8), 287.

Gillwald, A. (2017*). Beyond access: Addressing digital inequality in Africa.*

Rahman, M., Islam, M., & Ali, M. (2020). Exploring the Role of Union Digital Center to Managing Information Services in Rural Development of Bangladesh. *Bangladesh Journal of Public Administration.*

Khadiza, N. S., & Ullah, M. N. (2020). E-service delivery of union digital center in rural Bangladesh: A perspective analysis of client's satisfaction. *International Journal of Social Science*, 9(2), 75-84.

Hoque, M., Sorwar, G., & Hossain, M. (2022, January). Sustainable Rural Development through Union Digital Center: The Citizen Empowerment Perspective. *In Proceedings of the 55th Hawaii International Conference on System Sciences.*

Hoque, M. R. (2020). The impact of the ICT4D project on sustainable rural development using a capability approach: evidence from Bangladesh. *Technology in Society*, 61, 101254.