Role of Union Digital Centre (UDC) to Empower Rural People: A Case Study on Pabna Sadar Upazila, Bangladesh

Md. Miraz Hosen[1], Sabia Nur[2] & Mst. Nilufa Khatun[3]

[1]Lecturer, Department of Public Administration, Pabna University of Science and Technology, Pabna-6600, Bangladesh.

[2,3]BSS, Department of Public Administration, Pabna University of Science and Technology, Pabna-6600, Bangladesh.

Corresponding Author: Md. Miraz Hosen, **E-mail:** mdmiraz.hosen71@gmail.com

ABSTRACT

Union Digital Centre (UDC) is a union based information service center and the purpose of which is to ensure information services at the doorsteps of grassroots people. The main purpose of this paper is to explore the role of UDC to empower the rural community as well as to find out the overall challenges of e-service delivery through UDC to the local citizens. Both the primary and the secondary data have been used to achieve the objectives of this study. The overall findings indicate that UDCs have the potential to empower the rural community but the study reveals that the poor section is very low in taking services from UDCs and the marginalized sections remain far behind from the empowerment goal as they lack engagement with the facilities provided through the UDCs. The paper also observed that, in spite of having some drawbacks, the beneficiaries have begun to realize the importance of UDCs which has emerged as a very effective strategy to empower those rural people. Since there does exist some challenges associated with e-services, it should overcome as soon as possible. This paper also puts forward some recommendations in order to overcome the existing problem.

Keywords: Union Digital Centre, Information and Communication Technology, Empowerment, Rural, E-service.

INTRODUCTION

In the globalized era Information and communication technology (ICT) has become a vital part to perform the governmental activities. Through use of ICT, Union Digital Center(UDC) is capable to bring various types of information related to government, livelihood and private services to the doorstep of citizens in rural areas (Mamun, 2018; Maruf et al., 2020). Having a catching word "digital" in " Digital Bangladesh" in the election manifesto of Awami League in 2008, the primary concern was to use information and communication technology in case of administration, management and also for the governance so that the transparency, accountability and insurability are ensured at all levels of society and state. As a consequence of the manifesto, in the year 2009 with technical assistance from USAID and UNDP, more than 4554 union information centers were established under access to information (a2i) program (Afsar, 2010).

Empowerment is a continuous process that creates power not only in an individual's own life but also in the society and community around him. Rural empowerment is a precondition of overall development of a country specially the developing country like Bangladesh. Without improving the living conditions at the root level, countries' actual development is not possible. As we know that urban people are naturally more empowered, and they get more ICT related facilities than rural areas. When the rural people are empowered, it reduces the migration level of rural people into urban areas (Ullah, 2017; Tamzid, 2022; Alam & Hoque, 2022).

UDC can play a vital role in empowering the rural community because UDC is a one stop information and service center to provide ICT related facilities to the grassroots people at their doorsteps. Access to information means free flow of information and it is ensured through ICT in the same way free flow of information is a prerequisite of empowerment. Without knowing proper information rural people will remain far behind from the empowerment process. UDC can be effective while providing the services in the doorsteps of the marginalized, poor people which improve the overall scenario of rural areas as well as empowerment process of rural marginalized communities in Bangladesh (Sharmin and Ullah, 2020). Sarkar (2017) tried to analyze the policies and regulations adopted by other countries which for sustaining these UDCs. He looked at the sustainability of the UDCs in terms of telecommunication infrastructure, financial strength, and social acceptance, involvement of community people and range of service delivery. Moreover, he also looked at the direct

benefits of these UDCs to the rural community which occurs in terms of reduction in cost, time and the number of visits.

Rahman (2016) proposed in his paper that neither the private nor the public bodies in a segregated manner could render the poor rural communities the access to digital services. He found that without understanding the prospects of digital service centers in rural areas, it would not be possible the access to ICT, internet and digital services for the rural, marginalized people. Only few UDCs are adorned with the advanced equipment for providing the services to the public whereas most of the UDCs are only supported with the basic equipment of ICT. Faroqi (2015) found that the level of services and equipment in those centers vary greatly depending upon the extent of assistance from the UP, government and the entrepreneurship of the private partner. But the scale of inputs from entrepreneurship of the private and public partners is correlated with the number of people visiting in these centers for getting the services.

Moreover, in another study of Faroqi (2019), he argues that the current progress of UDC relies more on the people's participation and external support than on the investment of the private operators. He proposed that the government has crucial role in creating the enabling environment through consultation, training, monitoring a reward for the entrepreneurial development so that they feel encouraged to invest more as PPP in Bangladesh still has its inherent problems from resource constraints, unclear goals, tension over power sharing and so on. Thus, for ensuring financial sustainability, it is crucial. (Begum, 2017) stated that the key objectives of UDCs are to ensure easy access of common people to government, commercial and social information and services; to create ICT infrastructure at all Union Parishads and to increase its proficiency through speedy delivery of information and further day to day services. It also provides a supportive environment for formation of local entrepreneurs; ensures free flow of information for empowering local community; and creates a vibrant, knowledge-based UP.

The main purpose of the study is to identify the prospects of Union Digital Centers to provide services that play an important role in empowering rural people. The paper also puts an attempt to explore the key areas where UDCs can play an important role in empowering local people. Hence, considering various challenges faced by the common people and also from the governing perspectives, the results of the study provide a broader analysis of how the UDCs can be an effective tool for empowering the rural people by decreasing the pressure over the central government.

DATA BASE AND METHODOLOGY

This research is based on both qualitative and quantitative approach. The qualitative method is used as the major aim of the research is to explain the real-world scenario of the UDCs which creates platform for the rural communities to become empowered. In order to draw the inferences of the findings, some part of it also covers quantitative study as well. The study areas were covered with six (6) union parishads under pabna sadar Upazila. those are Dogachi Union parishad, Gayeshpur Union parishad, Ataikula Union parishad, Malonchi Union parishad, Hemayetpur Union parishad, Maligacha Union parishad's UDCs. Total sample in this research is 75. Out of these 75, Service Receivers are 51, Service Providers (entrepreneurs) are 11, the secretory are 6 and the chairman are 6. Moreover, random sampling was followed for the service receivers and purposive sampling was followed for the officials and the service providers. In this study both primary and secondary data sources will be used for collection of data. Sources like, journals, reports, thesis paper, documents, articles, government publish order, books, internets, and legal provisions will be used for secondary data collection. Primary data will be collected by using interview and questionnaire survey.

RESULTS AND DISCUSSION

Study Findings

Data Obtained from the Entrepreneurs and Officials

The gender distribution of the 11 (Eleven) respondents were as follows:

Table 1

Distribution of Respondents by Gender

Male/Female	Frequency	Percentage
Male	6	54.5%
Female	5	45.5%
Total	**11**	**100%**

From the above table it is found that out of Eleven (11) entrepreneurs of Six (6) UDCs of Pabna Sadar Upzilla, the number of male entrepreneurs were 6 and the female entrepreneurs were 5 and their proportion are 55% and 45% respectively. In every UDC, there should be two entrepreneurs to provide the services; one is male and the other is female. But while

collecting the data, it is observed that in Malonchi UDC of Pabna Sadar Upzilla, one female entrepreneur is not recruited yet.

Distribution of Respondents by Education Level

The education levels of the respondents were as follows:

Table 2

Distribution of Respondents by Education Level

Education Level	Frequency	Percentage
HSC	4	36.4%
BA	3	27.3%
Honours	2	18.2%
Above	2	18.2%
Total	**11**	**100%**

In the above table, it has been seen that all the entrepreneurs` level of education is more than HSC which is good sign. The highest number (37%) of entrepreneurs is HSC and the left (27%) education number of entrepreneurs' educational background is BA. And the rest entrepreneurs' educational background are (18%) Honours and (18%) Above that means all are well educated.

Frequently taken service by class of people

From the below figure, it has been found that most of the people who taken services from the UDC are middle class which constituted 50% the another section is lower middle class which constituted 33% and the rest are poor class which constituted 17%.Here it is shown that Poor section is very low who taken service from UDC.
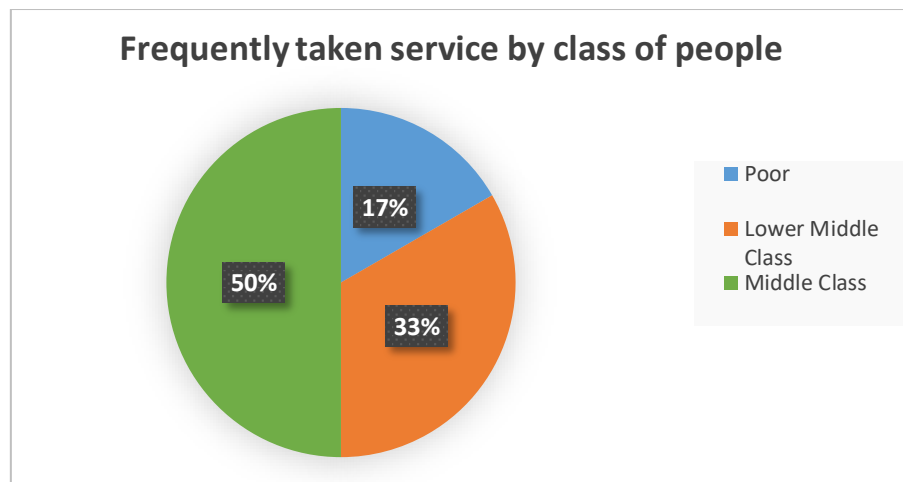
Figure 1: Frequently taken service by class of people

Speed and Access to Internet

Internet speed is very important to determine the effectiveness of UDC. All types of e-service activities like e-mail, on-line banking, on-line shopping, and internet browsing etc. largely depend upon the internet speed. The level of internet speed is given in the following table:

Table 3

Speed & Access to internet

Level of Internet Speed	Percentage
Very slow	9.1%
Slow	18.2%
Moderate	54.5%
High speed	18.2%
Total	100%

The above table shows that 54.5% respondents replied that the internet speed for providing e-service to the rural people are at 'Moderate' level and 18.2 % respondents opined that the speed of internet is 'high speed'. Again,18.2% respondents consider the internet speed is 'Slow` for delivering e-service to the rural community people while another 9.1 % consider the internet speed is 'very slow`. It has also been found out that most of the UDC entrepreneurs use internet and mail frequently but someone don't belong to any PC or Laptop of their own.

Provision of Training to other people

Table 4

Provision of Training to other people

Provision of Training	Percentage
Yes	36.4%
No	63.6%
Total	**100%**

Among total entrepreneurs, only 36.4% entrepreneurs provided trainings either to their colleagues or to the other young and interested people of their locality The rest 63.6% entrepreneurs did not provide any training to the other people and they were still learning from their colleagues and they constituted about 64%.Therefore, most of them required advanced training so that they can provide training to other people which create employment opportunities for the rural people.

Union Parisad (UP) Support to UDC for E-services Delivery

Union Digital Centre is a part of Union Parisad. The entrepreneurs work under UP chairman with the direction and direction supervision of Upazila Nirbahi Officer (UNO).
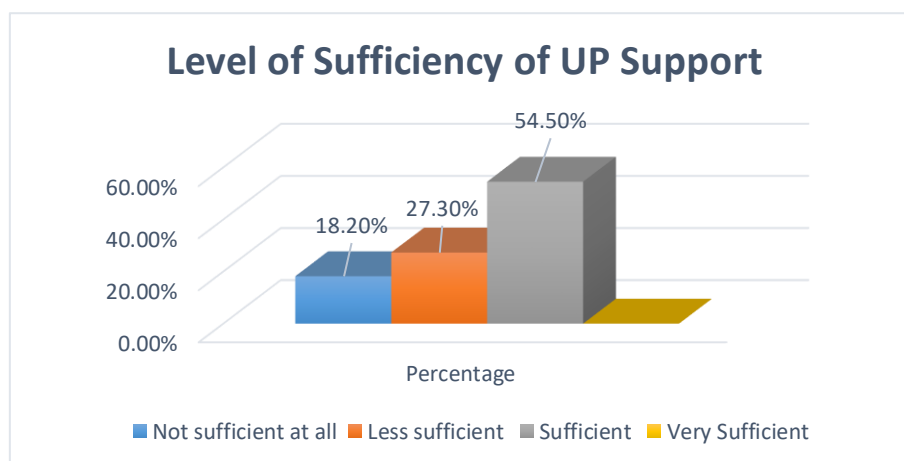

Figure 2: Union Parisad (UP) Support to UDC for E-services Delivery

From the above figure, it has been seen that about 55 % respondents from UDC entrepreneurs opined that they get "Sufficient" support from Union Parisad and 27.30 % respondents opined that they get "Less Sufficient" support from Union Parisad. On the other hand, about 18.20% respondents opined negatively regarding the support from UP. They opined that the support they get from UP is not sufficient at all. They demand for more support from UP and its Chairman for smooth functioning their e-service activities.

Data Obtained from the Beneficiaries

There were 52 respondents (beneficiaries) from six Unions of Pabna Sadar upazila under Pabna district. The distribution of 52 (Fifty-Two) respondents i.e. beneficiaries of UDC were surveyed which consolidated below according to gender.

Table 5

Distribution of Respondents by Gender

Male/Female	Percentage
Male	55.8%
Female	44.2%
Total	**100%**

From the above table, it has been found that out of Fifty-two (52) respondents, the number of males was 55.8% and the female were 44.2% respectively.

Distribution of Respondents by Education Level

From the figure below, we have found that most (23.1) of the beneficiaries fall into HSC and primary. The least of the respondents fall into no education (7.7%) secondary level (21%) SSC level (15.4%) and Honours and above (9.6%). Here we see most of the respondents are well educated who are conscious about Union Digital Centre and its service.
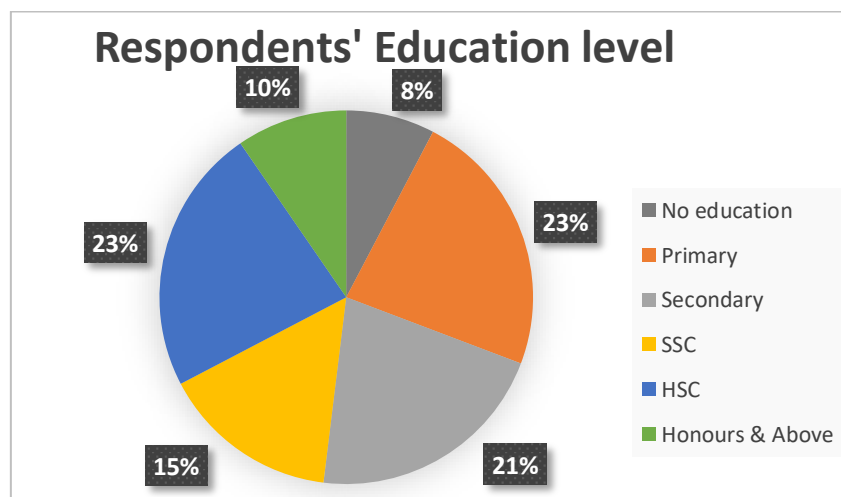

Figure 3: Distribution of Respondents by Education Level

Distribution of respondents by occupation

From the figure below, it has been found that most of the respondents receiving the services were the students which constituted 35%. The second highest of the beneficiaries were businessmen which is constituted 25%. Farming were 18%, while service holder 10% and

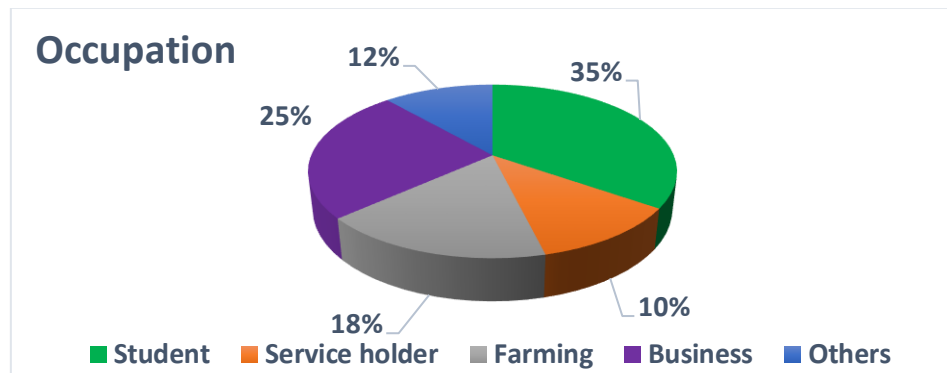rest of the number belong to others (12%) who involved in other professions like Tailor, housewives etc.

Figure 4: Distribution of respondents by occupation

Frequently taken services by the beneficiaries

From the figure below, we can see that most services received by the beneficiaries are birth certificate which constituted about 44.2%, the next one was business related services which constituted about 23.1%, the next most frequently taken services were the information regarding land related 13.3%., the next category was services related to the NID cards and others constituted around 9.6% which are clearly shown in the following figure:
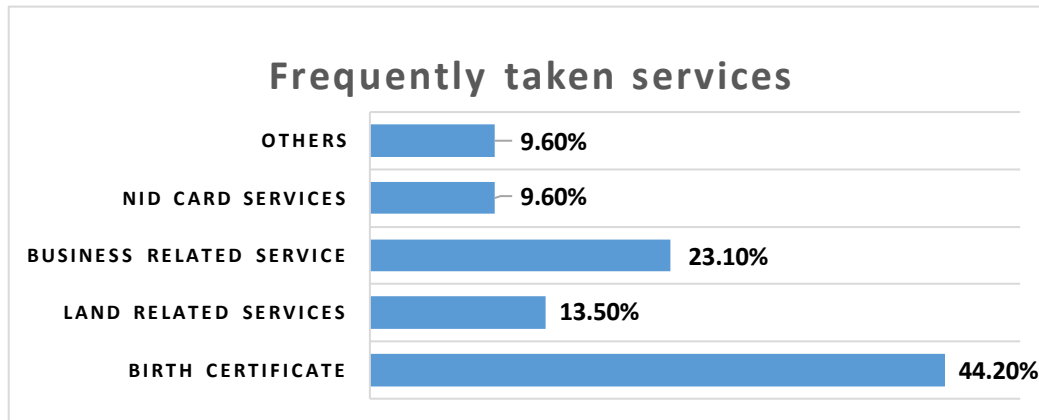

Figure 5: Frequently taken services by the beneficiaries

Level of Satisfaction

In the case of degree of satisfaction, it has been found that 48.10% of the respondents were satisfied, 13.50% were less satisfied, 21.20% were moderately satisfied 7.70% were highly satisfied and 9.60 % were not satisfied at all. The level of satisfaction is given in the following figure for better understanding.

Figure 6: Level of Satisfaction

RESULTS EVALUATION

Service Receivers' Perspectives

From the findings it has been found that the ratio of male and female beneficiaries is almost equal. As the distance of the UDCs mostly situated within two to three kilometers, it is easy for the females as well to come directly to the UDCs to get the services. While getting the services, it has been found that the student section come more for birth certificate issues and another bigger part businessmen section also come for their business-related information and services like getting trade licenses. Previously for accessing to such services, an individual is needed to go to the DC office in the district level. But due to the predominance of UDCs in the Union Parishads, they are getting such services in their own locality. Moreover, it has also been found that the local people are becoming more interested while starting the business as the hassles of getting a trade license has been reduced a lot due to the prevalence of UDC which make them empowered.

Although most of the respondents opined that now their life has become easier they get all ICT related facilities in rural area through UDC, for getting such service previously they have to go to city area which has long distance from the rural area. But it also found that some people are not at all interested in getting services in UDC rather they prefer to take services through conventional means because while getting service in UDC they have to wait long time and it far from someone's house.

After receiving the services, most of them are satisfied but still some of the service receivers are less satisfied and some are not satisfied at all due to the fact that while collecting data it is observed that most of the people are gathered for the correction of birth certificates and they have to wait for a long time more than 30 minutes even after few service receivers presence and they had to come to the UDCs several times for getting a single service due to the several mistakes in the form done by the entrepreneurs of the UDCs which raises question upon the efficiency of the service providers. Other than these, most of them are satisfied with the service delivery process and the behavior of the service providers. UDCs are making the lives of the marginalized poor people easier by providing the services and people of the every corner and every segment are coming for availing such services due to its easy availability which is making the rural people empowered as now they do not have to wait for their male partners to avail the services.

Service Providers' Perspectives

Entrepreneurs are the one who directly provides services of the UDCs to the citizens by using the knowledge and skills of ICT. From the findings it has been observed that, the percentage of male and female are almost equal. While providing the services and considering the women's participation in the labor force, in every UDC, there provides the system of two entrepreneurs where one will be male and the other will be female. UDC provides equal opportunity UDC provides equal opportunity for both the male and female to flourish by using this platform. Thus, this UDC is like a way out for them whereby implementing their skills of ICT, they are earning a lot and are able to improve their conditions from both financially and mentally as a result they empowered economically and socially.

While collecting data it is observed that all of the entrepreneurs are local inhabitants and it creates employment opportunities for the rural people as well as some young aged people also work under entrepreneur as a help desk. Therefore, another way of employment opportunity is created through UDC which latter make them empowered.

From the findings, it has been found that most of the entrepreneurs did not provide any training to the other people and they were still learning from their colleagues. Therefore, most of them required advanced training so that they can provide training to other people which create employment opportunities for the rural people. It has also been found that there is no

facility to provide trainings from the government level. Rather, the entrepreneurs by their own initiatives conduct training programs at the local level.

Challenges of e-service delivery through UDC

Some major challenges have been identified from the study findings. These are briefly discussed below.

Lack of Publicity about UDC services: Due to less publicity of the services provided by the UDCs, many local people do not know which services are provided by the UDCs. One of the service receivers from Hemayetpur UP mentioned-

"I only know that UDC is a room which is situated in the Union Parishad Bhaban from where we can correct and get the government certificates. But I do not know about the other services that much".

Absenteeism and drop out of service providers, mainly female service providers: Though the male service holders are almost regular, the females are mostly seen as absent or dropping themselves out as most of them are mainly housewives or student who have to do regular household activities. They rarely come to the UDCs after completing their household activities as they have taken entrepreneurship as a part time job.

Unwillingness of service providers for personal investment: As the entrepreneurs are not the permanent employee of the UDCs, they feel insecure to invest. This result the UDCs not expanding the services and the local people are deprived of becoming empowered.

Network and electricity crisis: As power crisis is very common in rural areas of Bangladesh, it hampers the uninterrupted service delivery. Most of the entrepreneurs mentioned that they suffer a lot due to very slow network as a result they cannot provide services in time.

Lack of technical support: In getting the technical support, all the entrepreneurs and the managerial staffs provided the opinion that there is a lack of technical support.

Lack of qualified entrepreneurs: In every UDC, there should be two entrepreneurs to provide the services; one is male and the other is female. But while collecting the data, it is observed that in Malonchi UDC of Pabna Sadar Upzilla, one female entrepreneur is not recruited yet due to enough ICT related knowledge. One beneficiaries of Mligacha UP said that-*"It is necessary to recruit the entrepreneur on the basis of not only ICT related knowledge but also they have to both educationally qualified to provide better services".*

81

Necessity of cooperation among Entrepreneurs, chairman and secretary: Entrepreneur of Maligacha UDC opined that they need more cooperation from the chairman and secretary to perform their work properly.

Some Way-out

Few suggestions could be made to alleviate the salient challenges of service delivery through UDCs at rural level. These policy recommendations are depicted below.

Expansion of the branch of UDC into the Ward level: UDC is a union based service center and there are two entrepreneurs to provide service for the rural people. It will not be possible for the two entrepreneurs alone in an UDC to provide the services. If the branches of UDC expand in the ward level, it will create an opportunity for the more entrepreneurs to join in such branches. It can act as a very effective platform to provide all the necessary services to the rural people and also to create more employment opportunities which will make the rural community empowered.

Provision of sufficient equipment: For the smooth service delivery it is highly needed that the instruments are adequate in quantity. It is also observed that there is shortest of equipment and most of the equipment is outdated and very traditional in nature. Such equipment should be removed, and updated instruments required for the effective service delivery should be brought.

Uninterrupted electricity supply: Electricity plays a vital role in smooth functioning of the service delivery. Therefore, for making the UDCs efficient and providing the services easily in the doorsteps of the rural people of Bangladesh, uninterrupted electricity supply should be ensured by providing the generator or IPS facilities.

Qualification of the entrepreneurs: As the entrepreneurs are trained on the basis of their personal initiative and there is no common training facility for them from the government level merely, thus their ICT skills vary to a great extent and it also necessary to qualified educationally.

Technical and Technological Support: For providing the digital services, internet connection along with its speed is very important. Thus, it is highly required to ensure the internet speed at adequate level so that the services can be provided efficiently. However, technical support should be much expanded for the overall success of the UDCs

Awareness building and promotional activities about the service of UDC: As many people of the grassroots level are not aware of the functions of the UDCs. It is high time to take and expand the promotional activities for making the aims and objectives of the UDCs successful. In this case, the local political leaders like the chairman of the Union Parishad (UP), members, teachers, and mass media can play a very active role.

CONCLUSION

The overall findings indicate that UDCs have the potential to empower the rural community this study area. Although we know that the main objective of UDC is to ensure information services at the doorsteps of grassroots people of the rural areas of Bangladesh, findings of the study reveal that the poor section is very low in taking services from UDCs and relatively poor people remain far behind from the empowerment goal as they lack engagement with the facilities provided through the UDCs. Here we see most of the respondents are well educated who are conscious about Union Digital Centre and its service. Moreover, some of the negative responses from the non-users confirm that they do not have a clear understanding about what UDC is and what services they are provided with and how such services are relevant to their lives and most of them prefer to take services from conventional media rather than UDCs.

In spite of such pessimistic things, the overall findings indicate that UDCs are able to minimize the miseries associated with seeking any kind of government and private services by decreasing the travelling distances. Moreover, as the service providers are selected mainly from their own communities, there exists a more people-friendly climate while accessing the services which reduces the overall troubles of the service receivers which was very common in previous time by taking extra charges or behaving rude with the service receivers. In this study, it is observed that in spite of having some drawbacks, the beneficiaries have begun to understand and realize the importance of UDCs which has opened a new window for the rural people in Bangladesh. It has emerged as a very effective strategy to empower those rural people. However, there exist some challenges associated with e-services that should be overcome as soon as possible. For that it is essential to make efficient cooperation of the service providers, the service receivers and the channel of service delivery in order to ensure a competitive, vibrant, active and socially responsible UDC which will act as a very effective platform for the empowerment of the rural community in Bangladesh.

REFERENCES

Afsar, R. (2010). Poverty, inequality and the challenges of pro-poor governance in Bangladesh. *Journal of South Asian Development*, *5*(2), 187-219.

Alam, M. M., & Hoque, M. N. (2022). The Personal, Social, and Cultural Perspectives on Female Secondary School Dropouts in Bangladesh: An Investigation into Pabna District. *South Asian Journal of Social Science and Humanities*, *3*(3), 73-93.

Begum, M. U. A., & Khair, R. (2017). Union Digital Centre, a Step towards Digital Bangladesh: Has it Got Institutional Roots?

Faroqi, M. G. (2015). An Assessment of E-Government: Case Study on Union Digital Centres (UDC) in Bangladesh. *Australian Journal of Sustainable Business and Society, 1*(1).

Faroqi, M. G. (2015). Financial sustainability of union digital center in Bangladesh. *The Journal of Developing Areas, 49*(6), 61-73.

Faroqi, M. G. & Collings, G. J. (2019). Stakeholder involvement in Union Digital Centers in Bangladesh. *SAGE Journals, 36*(2), 208-223.

Mamun, M. A. (2018). Dynamics of service delivery of union digital centre in Bangladesh: An assessment on institutional sustainability. *International Journal of Development and Sustainability, 7*(11), 2758-2777.

Maruf, M. K. H., Saha, S., Baten, M. R. H., & Akter, D. (2020). Assessing the Existence of Gravity Model for Bangladesh's Trade: A Panel Data Analysis. *South Asian Journal of Social Science and Humanities*, *1*(3), 71-92.

Rahman, S. M. (2016). Prospects of PPP in Expanding ICT Services in Rural Bangladesh: A Case of Union Digital Center. *International Journal of Economics and Finance, 8*(2), 163-170.

Sarkar, A. K., & Kim, Y. S. (2017). Key factors to be considered for making union digital centers (UDCs) sustainable in Bangladesh. *Asia Pacific Journal of Business Review*, *1*(2), 89-105.

Sharmin, N., & Ullah, M. (2020). E-service Delivery of Union Digital Center in Rural Bangladesh: A Perspective Analysis of Client's Satisfaction. *International Journal of Social Sciences*, *9*(2).

Tamzid, M. (2022). The Indicators of Bad Selection in Private Organizations of Bangladesh. *South Asian Journal of Social Science and Humanities*, *3*(2), 56-72.

Tipu, M. N. A. (2020). 22. Role of union digital center (UDC) in agricultural extension services in Bangladesh. *Journal of Agriculture, Food and Environment (JAFE)/ ISSN (Online Version): 2708-5694*, *1*(4), 147-156.

Ullah, M. S. (2017). Empowerment of the rural poor through access to ICT: A case study of the union information and service Centre initiative in Bangladesh. *Journal of Creative Communications*, *12*(2), 81-97.

Zaman, H. (2015). Service delivery process innovation: insights from Digital Bangladesh. *Innovation and Development, 5*(1). 165-168.