The Impact of Digitalization in Local Governance Procedure on Rural Area: A Study on Companiganj Upazila, Sylhet, Bangladesh

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Abstract

Bangladesh's government is trying to digitalize the local government service delivery to ensure Bangladesh's remarkable success to make it a middle-income country. This research aims to understand the positive outcomes and discover the UDC's digitalization of governance procedures. It can play in modernizing public administration in the rural area to provide efficient and effective services to the study area. Then this study also tried to get people's satisfaction with the Union Digital Center (UDC) regarding their service quality and highlighted outcomes of the digitalization and problem in digitalization of the local government procedure. Digitalized governance plays a significant role in increasing entrepreneurship and economic improvement, improving the quality of living in the Companiganj Upazila. Finally, this research gives recommendations based on primary and secondary data that addressed barriers to overcoming those barriers in the Companiganj Upazila, Sylhet, Bangladesh.

1. Introduction

A country's development is based on the availability of access and usage of essential information effectively. Digitalization of governance is a global megatrend that makes good governance by adopting digital communication technology. ICT solutions drive private and public sector organizations to optimize activities and deliver higher quality services to people in rural areas. Digitalization involves using technology-based network infrastructure, especially the internet (Kayikci, 2018). The digital transformation of government institutions at different levels of government at the urban or rural level has been accelerated by the widespread adoption of internet-based services and rising opportunities of suitable accessibility to governmental services bolstered by modern native plus modern-aware peoples. Rural communities continue to struggle to keep up with the advances in digital connectivity (Ianouchev, 2020).

Companiganj Upazila is an Upazila of Sylhet District in Bangladesh's Division of Sylhet. It has 13620 units of households and a total area of 278.55 km². Companiganj has a population of 85169. Males constitute are 51.86% of the population, and females 48.14%. This Upazila's eighteen population is 39684. Companiganj has an average literacy rate of 12.3% (7+ years) and a national average of 32.4% literate. Companiganj has 6 Unions/Wards, 76 Mauzas/Mahallas, and 131 villages. The unions are: West Islampur, East Islampur, Ranikhali 1, Ranikhali 2, Telikhal1 and Telikhal 2. Companiganj Upazila is a rural area in Bangladesh.

The Government of Bangladesh (GOB) is trying to be an Information and Communication Technology (ICT) based country, "Digital Bangladesh." For Become Digital Bangladesh, the government of Bangladesh takes an initiative E-Services to digitalize the governance system to provide quick public service delivery everywhere. GOB is trying to make advanced government services from a lower level like the Union Parishad (the rural areas' local government) and Upazila (sub-district) level to ensure development. The UDC didn't try to get feedback or people's satisfaction from the study area. This paper will measure the Companiganj Upazila's citizen's satisfaction with e-services delivery provided by the area's Local Government through their Union Digital Center service (UDCs) regarding its quality of service in the rural area.

2. Literature review

2.1. Digitalization in the Local Government Services

Digital transformation in rural areas local governance procedure at different levels of government at the national, division, city or rural level has been accelerated for various factors. These elements involve extensive receiving of ICT- basis services, validated by internet entrance, and the increased expectation of the convenient pathway to deliver government information assisted by modern native and digital-conscious citizens. In developing countries, digitizing processes provide government services to users by using the internet and mobile technologies. It means overcoming weak physical infrastructure barriers and increasing accountability throughout the system (Duneja et al., 2018).

Digitalization is the key element of sustainable development in rural areas (Kuzmich., 2021, "The Impact of Digitalization of Agriculture on Sustainable Development of Rural Territories."). "Digital divide in India reducing the gap" is an appraisal. It is expressed that modern ICTs can be used to solve the problems of rural culture in India. And temporary access to media telecommunication services is the main complication that has prevented the provincial regions from fully benefiting from the incredible potential of ICT (Rolandi and Silvia., 2021).

Digitalization in rural governance introduces relevant positive outcomes and related impacts in rural areas (Norris, 2005). In recent years, digitalizing the public services procedure projects at the union level has played a significant bit part in accessing local government's various information and services. E-governance is making better the proficiency of government activities, making fewer service costs, improving transpicuous Ness, and ensuring the multiplication of provided delivery (Hujran and Dalahmeh, 2011).

(Heek's, 2001) research outlines have three critical contributions to digital governance procedure: (i) making better governance processes (electronic-governance), (ii) connective people (people to internet-based activities), then (iii) creating extraneous interconnection (e-community). Heek recognized two significant tasks for developing nations and the obverse in the effectual implementation to digitalize governance. (i) Strategical tasks of citizens-preparation. Another one is (ii) the strategical task of shutting down the plan - the realism gap, better try to avoid failure plan and achieve the success of E-Governance Project (Heek "Understanding e-governance for development"). In summary, the literature reviewed highlights significant achievements of e-services in government activities of developing nations. Like the efficiency of delivering governance facility, increased transpicuous Ness in governmental work, improved behavior and attitudes of government employees, reduced corruption, increased income, poverty alleviation, and progressive government-citizen relations.

Correspondingly, according to Africa's framework, one scholar said transformed planned and social measurements need to be measured while implementing e-governance at the rural level of Africa Schuppan, (2009). According to African states, the research recognizes the situation-centered method appears to exist as an additional favorable pathway toward effective implementation of e-governance. A nation's evolution will be productive when rural people get way entrance to their daily work. Digitalization of rural governance is the key element of sustainable development in rural areas Kuzmich, (2021).

In recent years, digitalizing the public services procedure projects at the union level has played a significant bit part in accessing local government's various information and services. E-governance makes a better proficiency in government activities, reduces service costs and improves transpicuous ness Hujran and Dalahmeh, (2011).

Pathak and Smith (2007) reported the causes of corruption to the potentiality for digital governance procedures to reduce corruption. Their study found that e-government can eliminate corruption then. It similarly helps establish other credible govt.-public relations. Similarly, another research related to Fiji and Ethiopia. in another research paper, Pathak. et al. (2009) explored a concept of electronic government in Fiji to highlight the strong ICT-based governance for dishonesty and upgraded administrative works. His study outcomes express that ICT-based public facilities make citizens better participate with a productive, multifaceted approach to reduce the corruption of the Fijian administrative area activities of ICT-based electronic government is controlling corruption with alleviating impoverishment has been examined in a different rural area Hamner and Qahtani's (2009) focal point to accepting digital governance procedures with self-consciousness. And there is an argument about the user-centered method to discover the all-inclusive acceptability of electronic governance in the citizens of Saudi Arabia. The research focuses on how implementation projects can be used and managed in rural areas. This research will be different in this case. Also, it will be convenient for policy-making.

2.2. Union Digital Centers (UDCs)
Union Digital Centers (UDCs) is a Micro-enterprise across every rural area's local government of Bangladesh has been functioning as one-stop information and services delivery centers since 2010 Moin Uddin, (2017). The Government of Bangladesh developed the project, and the project implemented United Nations Development Programme (UNDP). These micro-enterprises are working under the Public-private partnership (PPP) model Faroqi, (2015). The private sector plays a pivotal role. It works under a local advisory body led by the elected chairman of each union council, and It provides both public and private services Faroqi, (2015). Access to websites or web software services to share regular information to marginalized societies in rural areas, whichever does not exist or is bounded. UDC has, in some cases, modernized societies by creating innovations for socio-economic improvement. There is a broad consensus that government microenterprises are helping to transform the traditional process of empowering and providing public and private services to citizens in villages. UDC offers three types of e-services: Informational service, Interactional Service and Transactional Service.

2.2.1 Informational services in Companiganj Upazila
Informational services of the UDC depend on online and offline services serving citizens. But in this epidemic situation, most informational services are available online UDC developed by projects management Access to

Information (A2I). The primary online source is available of Union Digital Centers in the Companiganj Upazila. The informational centers are easy to access, and there include many options like text documents, audio, video, animation, and images. Although not all options are equally developed, text documents are predominant. Entrepreneurs have created a local information portal, and the Union Parishad (UP) portal provides information on UP activities to every union. Now all citizens have access to government information through all government and local government office's websites (www.companiganj.sylhet.gov.bd). Such as, the Bangladesh Government digitalized all of the forms for the citizen e-Services application using the center. Digitalized Forms is available, and users can download passport, residency permits, birth registration, death registration, income tax, etc., form of governmental service.

2.2.2. Interactional services in Companiganj Upazila

The Migration of 139 female workers was registered for foreign employment from Companiganj Upazila (source: Field survey). Migrant workers are living in host countries with a significant vulnerability to exploitation. The major reason is the lack of knowledge behind the discussion of the employer. The BMET initiated the Government to Government (G2G) migration process to eradicate employers' illegal activities. The registration of job seekers was done from UDCs (A2I, 2019) in the country. In 2019, more than 100'000 women workers were registered in the following countries: China, Singapore, Bahrain, and some other countries and areas of work are domestic workers, garments, nurses, cleaners, factory workers, agricultural workers, etc. (Saad, 2020).

Malaysia started hiring Bangladeshi workers in 2020 after a 10-year suspension (Porimol, 2020). About 4,04,963 workers were employed in Malaysia but in a brief period with an unexpected way during the caretaker government in 2007 and 2008 (Farooqi, 2015). On November 26, 2012, the G2G recruitment process attracted renewed attention from all stakeholders (A2I, 2019). The agreement between Bangladesh and Malaysia governments is a step toward expanding the movement of citizens between the two countries. To ensure that rural farmers, especially tree planting workers, do not miss out on such opportunities, the government has decided to register ambitious candidates digitally through UDCs. In January 2018, 1.4 million citizens were registered with the UISC to migrate tree planters in Malaysia (A2I, 2019).

2.2.3. Transactional services in the rural area

UDC offers several transactional services to facilitate payment by locally advanced payments applications or mobile phones. Like public facilities, including land-related, electric bills, banking, admissions fees, and employment applications fees (A2I, 2019). There have Pally Bidut Samiti (PBS) in many districts under the Rural Electrification Board (REB) is around 1.92 crore customers across the country (Moin,2017). Some customers have entered into agreements with entrepreneurs to facilitate easy pay. Entrepreneurs will pay bills through mobiles provided by Tele talk companies or locally advanced payments applications (BREB, 2014) to collect bills from clients. Similarly, the land copy is also provided in the Upazila through UDC to allow beneficiaries to access the Upazila digital center portal.

Payments of the stamp and courts fee services are paid through the locally advanced payments application system, or mobile providers or beneficiaries visit union digital centers. Bangladesh Rural Advancement Committee Bank's Bkash has engaged in a settlement with UDC to access information, allowing beneficiaries to act like customers and others to follow suit (Minges and Raina., 2014). The May 2014 census report estimated that UDCs spend about 17.34 million per month, which means that UDCs are getting a profit of 24.30 million per month, and each is earning BDT 5,410.26. It costs about 22% to repair or buy new equipment (Moin,2017). Internet billing and advertising costs are the two main costs, and the census further estimated that 3,859 UDCs were making a profit, indicating their level of sustainability. On the other hand, 633 UDCs were reported to have spent more than their earnings on Vis- à-Vis (Moin,2017). UDCs are also providing transactional services in the study area.

3. Data and methodology descriptions

3.1 Methodology of the Study

This research was conducted in the Companiganj Upazila under Sylhet district in Bangladesh. This research followed both qualitative and quantitative approaches, and this study's data are shown through secondary and primary sources. Secondary data are collected from literature like articles and reports. Primary data is collected through a structured questionnaire and conducted interviews through zoom following purposive sampling. We interviewed 78 people. Seventy-one respondents were selected, with fifty-two citizens /beneficiaries, thirteen entrepreneurs, and six controlling authorities. The survey data are analyzed mathematically as range and percentage. The analysis calculation was done by following this formula, Percentage = (Part of respondents / Total respondents) *100%, and using Microsoft excel. The data collection method was followed by observations and analyzed qualitatively. Some computer software, such as Microsoft Word and Microsoft Excel, was used to present this research
and survey data.

3.2. The Standard of E-service delivery with citizen's satisfaction

Table 1:

The number of respondents taking different services from the UDCs.

Name of service	Frequency	Percentage of citizens taken services at least once		Total
		Yes (%)	No (%)	
Government certificate (birth/death/citizen)	62	87.32%	12.68%	100%
Computer literacy training	21	29.58%	70.42%	100%
Voter ID card & election related various information	26	36.62%	63.38%	100%
Land-related info such as registrations, records, surveys.	8	11.27%	88.73%	100%
school and university admission test Information	33	46.48%	53.52%	100%
Information related to public examinations	11	15.49%	84.51%	100%
Trade license	8	11.27%	88.73%	100%
Application for passport	22	30.00%	70.00%	100%
Tax related information- income tax, VAT	12	16.90%	83.10%	100%
Agricultural Information	19	26.76%	73.24%	100%
Market Information	32	45.07%	54.93%	100%
Mobile Banking service	46	64.78%	35.22%	100%

Source: Field Survey. The number of observations is 71.

Comment: This data shows the percentage of respondents who have taken service from Union Digital Centers. Among them, 87.32% of citizens have taken a citizen's birth or death certificate, 29.58 % have received Computer literacy training, and 36.62 % have taken a Voter ID card & election-related various information. 11.27% have taken Land-related information such as registrations, records, and surveys. 46.48% of the respondent has received school and university admission test information and results in check. 15.49% have received information related to public examinations. 11.27% have taken trade licenses, 30% have taken passport and overseas job applications, 16.90% have received tax-related information- income tax recording at UDCs, VAT, 26.76% have received agricultural information. 45.07% have received market information at UDC. 64.78% of the respondent has received mobile banking and online bill payment. The most common things observed are that UDC citizens are taking birth or death certificates and mobile banking services.

Table 2:

The reasons for taking the UDCs E-services over traditional mode.

Variable	1 Strongly disagree (%)	2 Not very much agree (%)	3 Moderately agree (%)	4 To a great extent agree(%)	5 Fully agree(%)
Condition of Services regarding Charge	5.63%	7.04%	21.12%	12.67%	53.52%
Easily accessible	9.86%	11.27%	14.08%	18.31%	46.48%
No long queues	11.27%	12.90%	12.66%	25.35%	33.80%
Less rules	19.72%	11.27%	15.49%	11.27%	42.25%
Quick Services	9.86%	14.08%	8.45%	19.72%	47.89%
Improved service quality	0%	12.68%	19.72%	16.90%	50.70%
Corruption control	11.27%	7.04%	22.54%	21.13%	38.02%

Source: field survey. The number of observations is 71.

Comment: When citizens were asked why they have received UDCs services compared to the traditional therapeutic mode and whether the UDCs could meet their demands, the public's response was measured in the desired format. For this analysis, we were interviewed our respondents to get the stander of the quality of the services. There have created five measurements scale for my collecting data. The research shows that the need for digital governance systems and information technology are fundamental for every rural person to develop and improve their lives.

According to the variable Condition of Services regarding Charge, this study found that 5.63% of respondents are strongly disagreed about reducing UDC service costs, 7.04% of respondents said they did not very much agree according to reducing UDC service costs. 21.12% of respondents said they agreed moderately,

12.67% said they agreed to a great extent, and 53.52% of respondents fully agreed. The statistics mentioned above conclude that the services provided by UDC are cheaper than the traditional model in terms of service charges and transportation costs.

According to the variable Easily accessible, this study found that 9.86% of respondents said that UDCs service is not easily accessible. They strongly disagree that UDC services were readily available; 11.27% of respondents did not very much agree with easily accessible UDCs services. 14.08% of respondents are agreed moderately, and 18.31% of respondents agreed to a great extent. 46.48% of respondents said that it is easily accessible with fully approved. People are more satisfied with the availability of services provided by UDC than ever before.

According to the variable No long queues, this study found that 11.27% of respondents are strongly disagreed. 12.90% of respondents said they do not very much agree with no long queues. A large number of respondents agreed that UDCs had reduced the long queue to receive their services. 12.66% of respondents moderately agreed, and 25.35% of respondents agreed greatly. 33.80% of respondents said they fully agreed with no long queue. There are no long queues for UDCs.

According to the variable fewer rules, this study found whether the UDCs have relaxed the rules for getting government jobs. 19.72% of respondents said they strongly disagreed with no complexity to take UDC services and fewer rules, 11.27% of respondents did not agree, 15.49% of respondents agreed moderately, and 11.27% of respondents agreed moderately agreed to a great extent. 42.25% overwhelmingly agree that the rules have been reduced. People are still afraid of the rules and regulations that encourage corruption and other illegal activity.

According to the variable Quick Services, this study found that 9.86% of respondents strongly disagreed. 14.08% of respondents did not very much agree with quick services. 8.45% of respondents agreed moderately. 19.72% of respondents agreed greatly, and 47.89% agreed. It is broadly agreed that they received prompt service from UDC. The analysis shows that citizens are receiving UDC services faster than before.

According to the variable Improved service quality, this study found that most respondents agreed that UDCs now provide better services than the previous model. 12.68% of respondents did not very much agree. 19.78% of respondents moderately agreed, and 16.90% agreed greatly, with 50.70% of respondents fully agreeing. The service quality of UDC is relatively improved, and now it is more effective and more efficient.

According to the variable Corruption control, this study found that 38.02% of most rural respondents are fully agreed. And they said the digitalization of e-governance helps control corruption in rural areas. And 11.27% of them were not in favor of controlling corruption. They strongly disagreed. 7.04% of respondents did not agree, 22.54% of respondents agreed moderately, and 21.13% of respondents agreed to a great extent.

The study shows that digital governance systems and information technology are fundamental to every rural person to develop rural people's lives. This study focuses on the development of the Companiganj Upazila. And finding the gap between the area's citizens and local government digitalization services also focuses on self-improvement. Today's information technology has become a part of the public's daily living, improving digital governance systems. With the new development of ICT, the standard of living of the people in society will also increase. The government of Bangladesh has launched several schemes and programs in rural areas of the country for the necessary development and progress related to information technology. The central government's promise to digitize UP centers by adopting ICT-based services strengthened its legal activities with smart assistance.

It is accelerated to founding to give their assessment to voter participation in the delivery of local government policy creation and repair the process. In this case, Union Parishad understands this. In rural area units through this UP, services are ready for movement with individual plus local societies. It has unfolded and proceeded with unraveling the various obstacles that units must take within their known limitations and work to hold importance in Union Parishad activities. UDCs provide their best services to all, and even the UDCs staff also take their services from their institution.

Table 3:

Measure the respondent's satisfaction with the infrastructural strength of the UDCs.

Variable	1 Strongly dissatisfied(%)	2 Not very much satisfied(%)	3 Moderately satisfied (%)	4 To a great extent, satisfied (%)	5 Fully satisfied (%)
Internet speed	18.31%	8.45%	14.08%	11.27%	47.89%
Available of necessaryequipment	5.63%	14.08%	23.94%	15.49%	40.85%
Availability of electricity	31.00%	21.13%	16.90%	7.04%	23.94%
Skilled entrepreneur	14.08%	12.68%	18.31%	16.90%	38.02%
Behavior of entrepreneur	2.81%	7.04%	15.49%	23.94%	50.70%

Source: field survey. The number of observations is 71

Comment: This research found that 47.89% of respondents are fully satisfied with moderate internet speed, 18.31% are strongly dissatisfied, 8.45% did not seem very satisfied, and 14.08% agreed moderately. 11.27% of respondents were satisfied to a great extent. It has been found that people at UDC are not extremely satisfied with the speed of the internet. They are moderately happy. According to the availability of necessary equipment, this study found that 40.85% of respondents said they were fully satisfied in terms of necessary equipment, 23.94% were moderately satisfied, 14.08% were not very satisfied, and 7.04% were satisfied to a great extent. And 5.63% of respondents were strongly dissatisfied. It is noteworthy that the tools are mostly available in UDC.

According to the availability of electricity, this study found that 23.94% of service candidates were fully satisfied with the availability of electricity, 16.90% were moderately satisfied, and 21.13% were not very satisfied. 7.04% were satisfied to a great extent. 31.00% are strongly dissatisfied with the availability of electricity. Most of the respondents said that most of the computers are damaged by load shedding. It is a big problem in the Companiganj Upazila. Even UDC is also facing this problem. Sometimes they cannot properly serve the public services because of this. Statistics show that electricity problems are present in most UDCs, such as village work, where load shedding is still a common problem.

According to skilled entrepreneurs, this study found that 38.02% of service seekers are fully satisfied with the efficiency of entrepreneurs, 18.31% are moderately satisfied, 16.90% of respondents are satisfied to a great extent, and 12.68% of respondents are not very much satisfied. 14.08% of respondents are strongly dissatisfied. In this case, the conclusion is satisfied with the efficiency and effectiveness of the human resources working in UDC. According to the behavior of entrepreneurs, the study found that 50.70% of respondents expressed satisfaction with the behavior of entrepreneurs towards citizens, 2.81% of respondents were strongly dissatisfied, 7.04% were not very much satisfied, 15.49% moderately satisfied, and 23.94% respondents are satisfied to a great extent with the behavior of entrepreneurs who are working at UDC.

4. Finding

4.1. Outcomes of the e-governance delivery in the rural area

E-governance helps provide data to the residents, and it creates innovative thinking for the people of the village to generate resources. There have been both positive and negative outcomes of digitalization on rural areas' local government. The economic impact of digitalization in rural Bangladesh is far-reaching. The digitalization of rural areas' local government has helped to advance the more enduring Bangladeshi communication system. Digitalization of governance has helped develop health, communications, human rights, economic growth, education, and more. Digitalization of local government affects the action resources in different ways depending on the setting around which they are presented.

4.1.1. Positive outcomes of the digitalization of governance in the Companiganj Upazila

Improvement in standard of living: They improved citizens' quality of life by improving their income level. It is their first benefit of digitalization in rural areas' local government. Lots of village people are getting help from the e-government by using a governmental facility like internet services and other facilities used by them provided by various projects like lifeline Bangladesh. Through it, people can know about different diseases of plants, new farming methods, etc. People can also get information about several farm animals' diseases and strategies. They can take care of them, and in the end, it helps them increase their profits.

Increase in employment opportunities: Increasing employment opportunities in rural areas benefit rural people. Rural people can get employment-related news from the digitalization of local governance. Many people in rural areas who are usually small entrepreneurs can now get employment more quickly than before using government services.

Decreasing risk and uncertainty: The use of available services helps to reduce risk and uncertainty in rural populations by accessing online data. For example, fishers can check the weather before leaving home and heading out to sea. Nowadays, people can also connect with UDC to help them in case of any emergency by using mobile phones.

Increasing e-literacy in rural areas: The younger generation has become familiar with computers to use the Internet, MS Office, MS Excel, etc. Due to the internet, it is now easier to conduct educational and training activities for rural youth. Various projects are under government through which a large number of rural youth are being trained.

Saving times: Using digitalized services, rural area people can save time by getting home services. Citizens do not need to go to a government office to receive government services. Corruption controlling: In the study area, we can see that the digitalization of governance has a high controlling rate for corruption. E-governance is a potential instrument for controlling corruption. E-governance can reduce unnecessary social interference in the public services process, consequently minimizing corruption activities by monitoring. According to their election manifesto, the Government of Bangladesh is taken serious action against corruption. To benefit from services, for providing governmental facilities to reduce the suffering of the citizens, they are taken the step to various governmental facilities online to increase transparency in government services.

4.1.2. Negative outcomes of the digitalization of governance in the Companiganj Upazila

Data security: The Union Digital center collects data from every citizen. Then they store the citizen's data on an online server. There has a risk of hacking citizens' information. Bangladesh's government has faced the problem several times. Such as, in 2012, 38 Bangladeshi government websites were hacked by Indian hackers (Mohit Kumar "38 Bangladesh Government Sites Defaced by Indian Hackers in 2012"). After a few days, governments were recovered it. It is a big problem with the digitalization of local governance.

Educated people take advantage: Some respondents lack knowledge about digital services. For this problem, they cannot use the services properly. Educated people take advantage of using digital services.

Evolving citizen needs: People cannot take the government services without using smartphones or laptops and internet packages. So, if citizens want to take services, they first need to buy a smartphone or laptop and an internet package.

4. 2. The problem in the digitalization of the local governance

Availability of electricity: This stud research survey found that the availability of electricity is a big problem in the Companiganj Upazila. They can't use their computer or mobile when they need to use it because of load shedding. Sometimes computers are damaged because of load shedding.

Slow internet service and high costs: This research survey also found the internet speed problem. They are still using mobile networks. Some people were satisfied with the mobile network, but some said their internet services are not good. There aren't high-speed connections in the study area like broadband connections. Some people complain that they face long internet loading times when they need to receive the services. It makes them bored. And internet costs are high.

Less advertisement about introducing facilities: It's a big problem to develop our nation. Some people complained that UDC didn't advertise to introduce their available facilities. People had to know on their own. Suppose people learn more. They can do more. UDC should introduce a greater number of its services to the area's citizens.

Less introduction to land recording and mobile banking: Land recording and mobile banking services should be introduced in all UDCs. There is a way to do that, but they don't introduce how to use the services related to land recording and mobile banking on their website.

Don't have a birth certificate correction system: Sometimes, government people make mistakes to people giving the basic information in the birth certificate. Some people had to correct their birth registration correction system. But in the UDCs, there is no way to update birth registration certificates. There has a way to update voter id cards. But there doesn't have a birth certificate correction system. People had to use the traditional way. They had to go Union office to make it correct. They said it would be better to include the correction system with their online services.

Less introduction about the money deposit system: All types of government job applications and money deposits systems should be introduced at UDCs. to do many government activities, Proper standardization of Bengali software should be done. Some of the people had to face some obstacles. They didn't know the accurate way to deposit money for their job applications. And on the website, there didn't have any information about the deposit system. UDC should introduce about money deposit system, and they should also consider proper standardization of Bengali software.

Less motivate public to use govt. Website: The local government doesn't motivate the people of their area to use the government website. If they encourage the people, they will get more users and know accurate information about their services. And citizens can solve their problems by using UDC services. Some people said that they didn't get the proper way to use it, that's the way they are not satisfied. If they know the accurate way to use it, they might be satisfied with the UDC.

5. Discussion

The concept of Union Digital Center is highly innovative and pioneering in Bangladesh. It is a significant example of ICT-based digitalization of governance services like e-services that can serve the rural areas in Bangladesh. It was first launched in 2009 as a one-stop information and service outlet to provide services to low-income people at their doorsteps. But the Companiganj Upazila, Sylhet, was first launched in 2011 and last upgraded in 2020. The Local government in all rural areas provides services to the citizens towards achieving the goal of "Digital Bangladesh." After the election manifesto of the Bangladesh Awami League (BAL) in 2008. Educated people are getting more benefits than illiterate people through UDC. Now, people from all sections are getting benefits from UDC.

The Local government has opened the door to modern services for rural people, but their demand is still deficient. UDCs have made the hassle-free service delivery process in the Companiganj Upazila. Now citizens no need to transport long distances, no need to invest more time and spend, which is often unreasonable of citizens. It is reasonable to assume that a lot of hassle is reduced. Tests were performed using both descriptive and test statistics. But there have some people who have less knowledge about UDC. The Local government

didn't motivate them to use the UDC services. UDCs are existed the fast-winning projects to consider as issues of modern segmentation. UDCs were presented as a framework of the imbalance among the three elements of electronic governance: online components, telecommunications frame, and citizen-centric. UDC may share access points as the digital distribution runs over literateness level, revenue, and geographic location. Rural peoples' participation can bridge the gap between commercial and internet-based services. But the thing is that people have learned about these services quickly, so it is to be hoped that once people understand their usefulness, they will be able to take full advantage of it. UDC should introduce its services to citizens.

In the Companiganj Upazila, the entrepreneurs spend most of their time in their workplace, which is very important. UDC's service promotion relies heavily on entrepreneurs. The public perception of the efficiency of UDCs is of the greatest importance things. About 84% of respondents agree even as good as their regularity at UDC. Most people are happy with their demands. But occasionally, some respondents are concerned that their rights are being violated by many obstacles, such as politically authorized persons, influential people, etc. According to the beneficiaries of UCD, it is enough to accept their services, but for some reason, it cannot go smoothly for various reasons. If the receivers' satisfaction is not so much on delivering quality of UDCs, some of the beneficiaries feel like their lack the tools to provide better services. I have questioned the satisfaction of entrepreneurs doing this kind of work. They immediately replied that they were somehow satisfied, but they often could not be assured of their work because it was behind it. They have enough printers, computers, scanners, and most importantly, electricity and power are not available all day. They have mentioned our research to give their best efforts to satisfy their customers. They work to raise awareness about raising awareness for citizens' rights to use ICT tools.

6. Recommendations and conclusion

6.1. Conclusion

In conclusion, we can say that the digitalization of local governance in the Companiganj Upazila is an important factor in improving the area. A nation's development can be easily enhanced through proper public services. The local government in Companiganj Upazila they are trying to provide its best services. The consciousness of digitalization knows how to upturn the enthusiasm of citizens living in the study areas. It may provide current information, efficiency, and collaboration with the market and navigate agricultural food at market prices. Increasing productivity can lead to making stronger economic development of the nation. Considering these intensive issues, rural areas' financial side can be developed very fast and at a high rate.

Digitalization of government services is playing an essential role in environmentally sustainable rural development. Digitalization of governance has a significant commitment to improving Bangladesh's economic and social progress and positively impacting the village. In developing countries like Bangladesh, to reduce the digital divide and empower the poor people, it is essential to improve the sustainability of rural people in Information Communication and Technology at the grassroots level. It becomes visible like the best effectual plan to empower people, providing products and services to last partners. UDCs initiative to use ICT to optimize cost-cutting, effectiveness, plus efficiency makes the government additional responsible with transparent, reducing opportunities to corrupt employees.

UDCs are trying to decrease gaps innate to manual operational processes during the interaction between different stakeholders. Creating national databases and storing them on a nationwide network gateway to collaborative use by various participants help to reduce gaps in exceptional cases. Moreover, it will enable everyone in the ICT sector to help the government and other stakeholders build capacity. Effective uses of ICT can bring prosperity with empowerment to the rural population of Bangladesh when the important source of revenue information is accessible at the doorstep for people on time. Also, ordinary, educated people have given up internet access and identify with the significance of using internet services are providing uninterrupted, productive, and well-organized services. UDC receivers and representatives have high expectations of e-services.

Therefore, citizens' values of UDCs additional to alternate distribution arguments. UDCs are reaching out to reduce the digital divide in gender, education, occupation, and income. Although women's participation in UDCs is higher than an old point, citizen contribution in determining service has some negative occurred. Equally, the participation of illiterates is also low because there is no particular service for them. The role of UDCs in providing services is primarily limited as they are not yet affiliated with e-governance providers. Few e-governance provided by UDC is mainly linked to the websites of the concerned government agencies.

6.2. Recommendations

There are some recommendations to get higher citizen satisfaction. The recommendations made based on the respondent's comment:

Availability of electricity should be ensured, and more solar systems should be provided to the entrepreneurs. Load shedding is a big problem in the study area. Government should reduce it as soon as possible.

(1) Internet speed should be improved, and costs should reduce.

(2) Entrepreneurs should advertise the facilities of UDCs in a greater number.

(3) Land recording and mobile banking services should be introduced in all UDCs.

(4) Birth certificate correction system correction should be included, and all types of government job applications and money deposits systems should introduce at UDCs. To do many government activities, proper standardization of Bengali software should be done.

(5) Entrepreneurs and government should motivate the public to use govt. Websites rather than traditional methods.

(6) The local government of the Companiganj Upazila's UDCs should be instructed to launch more services on agriculture and livelihood.

There have some limitations to this research. I was Conducted through both secondary and primary sources. It's individual research, and it's epidemic time in the study area. It was challenging for me to collect and manage more data from all Unions. I have selected 4 (four) unions, and the respondents were 71. It will be more effective if the respondent with more unions.

Acknowledgments

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