

EXPANSION OF SELECTED SERVICES THROUGH UNION DIGITAL CENTERS

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Benefits and Costs of Providing more
Government and Private Services Through
Union Digital Centres in Bangladesh

Expansion of Selected Services Through Union Digital Centers

Bangladesh Priorities

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Executive Summary

Union Digital Centers (UDCs) in Bangladesh are one-stop service delivery outlets, providing information and delivery of different public and private services. Established under the direct jurisdiction of the Prime Minister's Office (PMO), with technical assistance from the United Nations Developed Programme (UNDP) and United States Agency for International Development (USAID), its operation is being overseen by the Access to Information (A2I) program. UDCs are aiding rural citizens to deal with the circuitous bureaucratic process of service delivery. This study analyses the cost-benefit of four services (2 public and 2 private) provided by the UDCs. The services include citizenship certificate, application for a machine readable passport (MRP), mobile banking and utility bills payment. The services accessed through the UDCs greatly reduce time, cost and number of visits to government offices for the beneficiaries. The empirical findings of the study show that except for mobile banking, services such as citizenship certificate, electricity bill payment, and application for a machine readable passport (MRP) through UDCs are very cost effective.

1. Introduction

Union Digital Centers (UDCs) in Bangladesh, formerly known as Union Information Service Centers or UISCs, are the hallmark achievements of Vision 2021 and Digital Bangladesh. Through UDCs, a last mile service delivery outlet, the circuitous bureaucratic processes which used to frustrate rural citizens (at present, estimated to be more than 70% of Bangladesh's population), in their attempts to avail public services and information, have been partially remedied. Stationed at the lowest tier of the rural local government system in local government offices (i.e., Union Parishad), UDCs are operating with the objective of taking servicing to rural citizens' doorsteps. The services offered by UDCs can be divided into two broad categories - government and commercial. UDCs offer a number of public and commercial services ranging from providing information about general government organisations to browsing, instant messaging, money and remittance transfers, passport applications, land registry and so on. It is assumed that these information and services are pertinent to the livelihoods and wellbeing of the rural citizenry, people and accrue certain benefits at a minimal cost in terms of money and time.

To illustrate, an UDC is about 3 km from a typical rural citizen's home, whereas a sub-district and district headquarters are 15 and 35 km away, respectively. This means that before the onset of UDCs, rural citizens had to undertake this long journey to access simple information and services – from agriculture related information to land record services, and many more. Zaman (2015), in his study on some electronic and mobile services being delivered through UDCs, noted that “today, a farmer in a remote location can learn about appropriate fertilizer and pesticide, and receive prompt feedback from relevant public-sector experts; a villager can apply for land records, birth certificates and other services without having to undertake multiple visits; and, a migrant worker can now participate in government-to-government (G2G) migration opportunities without having to visit Dhaka,” (Zaman, 2015: 167).

UDCs represent 'service access innovation' which is leveraging the government's 'service process simplification' works. In other words, UDCs are enabling rural communities to access government and commercial services as a result of innovations in ICT and mobile technology in service delivery. It has established direct links between citizens and the government, creating trust, solidarity and reciprocity. In fact, UDCs offer the government a bottom-of-the-pyramid platform to function as a pro-poor entity serving citizens across all strata and helping to foster development at the bottom. If democratic government is 'for the people', then, undoubtedly UDCs in Bangladesh symbolize a big leap forward

which has brought the government to the rural citizens' doorsteps. This is because UDCs, which epitomizes e-governance at the lowest public administrative tier, helps to boost the quality, efficiency and effectiveness of the public sector, to foster co-ordination and cooperation across levels of government, thus increasing citizens' trust in their government. Furthermore, the UDCs act as a gateway to information and offer an enormous opportunity to rural communities, connecting them to the rest of the world. As has been argued, the modern societies we live in, often called knowledge societies, are extremely dependent on information; access to information in this age offers the potential to grasp certain opportunities by overcoming traditional barriers of distance or of physical space (Archmann, and Iglesias, 2010).

Since 2010, UDCs were *de jure* in operation across all the 4,547 Union Parishads (UP) of the country. Two young local entrepreneurs— a male and a female - run these enterprises. UDCs are backed by the Access to Information (A2I) Prime Minister's Office (PMO) in Bangladesh. A2I provides both technical and legal support and at the same time, it helps the entrepreneurs explore new service delivery opportunities from both the government and private sector. UDCs are thus operating under a public-private-partnership (PPP) modality.

The entrepreneurs do not receive any remuneration from the government of Bangladesh but operate the enterprises independently through its own activities. Hence, UDCs are also enabling self-employment and improving business attitudes amongst the entrepreneurs which are inspiring others in the rural communities. UDCs helped to offer job opportunities to 4,500 young women entrepreneurs, who are today successfully managing their lives and supporting their families with their own income.

It is estimated by the national bureau of statistics that the 4,547 UDCs of the country earn about 41.65 million BDT (approximately 0.545 million dollars) on a monthly basis (BBS, 2014). In terms of expenditure, it is reported that UDCs spend about 17.34 million BDT per month (BBS, 2014). This means broadly that UDCs are making a profit of 24.30 million BDT, with each UDC earning about 5,410.26 BDT per month.

The objective of this report is to analyze the cost-benefit of certain government and private services being provided by the UDCs so that these can serve as a guide in further deepening their links with other service provisions and also adding new services to the UDCs. The services under investigation include:

1. Citizen Certificate service from Union Digital Centers- (Government services)

2. Online Application for a Machine Readable Passport- (Government service.)
3. Mobile banking service from Union Digital Centers- (Private services)
4. Utility bills payment through mobile and internet at UDCs- (Private services.)

The services selected cover both the government and the private service dimensions. BBS (2014) correctly identified the aforementioned services as among the top services sought and received by those living in rural communities (excluding number 2 on the passport).

2. Digitization of Public Service Delivery in Bangladesh

The public service delivery mechanism of Bangladesh is in the midst of reinventing itself to become more transparent, accountable and responsive to citizens' needs. A *Transparency International Bangladesh* (TIB) report acknowledged a 30 per cent reduction in corruption in the service sector due to the introduction of e-services (GoB 2015). Similarly, the 7th Five Year Plan (7FYP) stipulated that e-governance will manage the way that citizens deal with the government and with each other. It further articulated that work flow in government and semi-government offices will be fully integrated with ICTs through a re-engineering of the government's business process. The 7th FYP sets several targets under two interrelated components of the Digital Government category: (a) e-Administration, i.e., the business process re-engineering of government agencies; and, (b) e-Citizen services, i.e., converting traditional service delivery into an e-service delivery system.

2.1 E-Administration

All public information is being made accessible in Bangla through electronic means and also through mobile phones. All gazettes and notifications are being published online using the Unicode characters. A2I has supported designing, developing and implementing the National Portal of Bangladesh (www.bangladesh.gov.bd), which is a gateway to 40,000 websites, covering all government offices. This Portal embeds key information pertaining to agriculture, education, health, human resource development, social security, environment and disaster management, tourism and history, government circular/gazette, procedures for applying and receiving public services, government forms, citizen charter, list of officers and personnel, etc. Starting with the UDCs entrepreneurs to the ministries and their divisions, about 50,000 trained government officials and employees are collating and updating the National Portal. The government has established District e-Service Centers (DESCs) across all 64 districts in 2011 to start work on the online-data sharing and decision making system. Citizens, through UDCs, can now receive such services as land records (khatiyans) from the District Commissioner's (DC) office at much less cost and time and without having to undertake multiple visits.

2.2 E-Citizen Services

In 2014, the government launched the “Services Portal” and “Forms Portal” to facilitate and access certain public services online. All ministries, divisions, directorates and corporations are now linked with “Sebakunja” - about 400 services of 36 Directorates/Offices have been amassed into a “Single Access Point.” Through “Forms Portal” (www.forms.gov.bd), on the other hand, citizens can download necessary forms, if and when, they intend to apply for any service. Since 2009, applications for admission registration at 32 public universities, 400 colleges and all public medical colleges are being done through a SMS service. All public examination results are also being delivered through mobile phone text message service since 2009. Various public utility bills such as electricity, gas and water can now be paid online or via mobile phones.

Mechanisms are also being established for online status checks of court cases. Dhaka Metropolitan Police has launched an experimental online diary. Electronic general diary (GD) and first investigation report (FIR) at all police stations by 2021 are mentioned as two strategic long-term goals as part of the Vision 2021 strategy. The e-ticketing and mobile ticketing mechanism for the Bangladesh Railway was inaugurated in March 2010. Online tax filing has been introduced by the National Board of Revenue (NBR), alongside the submission of online income tax returns, VAT and income tax payments. An online tax calculator has been launched. Automation of Chittagong and Dhaka Customs has increased transparency and dynamism in import-export activities. The government has introduced an online procurement system in phases. Both e-tendering and e-contract management have been integrated through e-government procurement (e-GP) system.

3. UDCs Operations at a Glance

According to the *Census Report on UISCs* (BBS, 2014), out of a total 4,547 Union Parishads, 4,492 UDCs are functional and 41 inactive. According to a2i, about 200 million service transactions on average are currently being delivered by UDCs every year (nearly 3700 service transactions per UDC every month). These are provided to 3.2 million citizens of whom 949,120 are women, 16,160 ethnic or religious minorities, 62,266 physically challenged persons and approximately 237,282 citizens aged over 50, saving them time, cost and a hassle free environment (UISC Census 2013).

Sending/receiving emails and instant messages are the two most popular internet-based services and it ensures the long-standing demand for having the right information at the right time and at the right place, a key attribute of a democratic and responsive governance process. Apart from the internet,

the most popular services being rendered through 75% of UISCs are birth registrations, followed by composing works 65% and citizen's certification 42%.

A quick look into the functioning of the UDCs can be seen from the box below.

Fast Facts
<ul style="list-style-type: none">• Union Digital Centers were inaugurated simultaneously on November 11, 2010• 4547 Union Digital Centers operational in all Union Parishads• 9094 entrepreneurs are self-employed.• Top services: Govt forms, Examination results, birth and death registration, livelihood information, computer training, mobile banking, email and internet browsing etc.• Investment by govt.: From LGD through LGSP fund and 1% of ADP. In addition DC offices spend from their allocated funds for entrepreneur training, workshop and mobilization.
<p style="text-align: center;">Result Achieved</p> <ul style="list-style-type: none">• 45 Million services provided to citizen from Union Digital Center in last 2 years countrywide• 40 Million birth registration electronically from Union Digital Center• 1.38 Billion earnings for Union Digital Center entrepreneurs in last 2 years• 30, 000 local youths got ICT training from Union Digital Centers.• More than 9000 leaders and entrepreneurs have been trained through leadership development• 1.4 million rural workers registered for online government-to-government (G2G) migration• Closer ties established between the local administrations and the citizens through creation of service oriented UPs
Source: http://www.a2i.pmo.gov.bd/content/union-digital-center (accessed on April 12, 2016)

3.1 The Process

In the discussion below, we will describe the process of the four services under study.

Citizen Certificate: The introduction of birth certificate delivery through UDCs have significantly reduced the time, cost and number of visits. In the absence of the UDCs, people had to visit UP to register for child birth. They had to pay another visit later to apply and obtain the child's birth certificate. All this would take time, money and enough visits to discourage people from acquiring their child's birth certificate. However, as the government made it compulsory to register the birth of every single child, introduction of the Birth Registration Certificate application through UDCs appears

significant. Because UDCs offer birth registration and an application to obtain a birth certificate, an applicant can receive a birth certificate in one visit, with significantly less money and time spent.

Machine Readable Passport (MRP): Bangladesh has introduced the MRP as per the guidelines of the international civil aviation protocol. Through the manual process, the citizens first had to visit the regional passport office to collect a passport registration form. The next step was to submit the registration fee to a specific bank, as well as to submit the completed passport application form followed by the biometric enrolment. In order to receive these services, the citizen would have to wait in a long queue each time. Through the online process, citizens fill in the MRP application and pay fees online. The citizen then needs to visit the passport office to submit a hardcopy of the application and complete the biometric enrolment. While the long queues seemed to prevail through the system as well, the time, cost and visits that are saved by applying and paying online are significant.

Mobile banking: The aforesaid runs similar for mobile money transfer as well. Traditionally, the rural poor are excluded from the formal financial system for being illiterate and are considered 'unbankable'. Being excluded, rural households had to rely on a 'Money Order'—a money transfer service of the Post Office. The Money Order used to take 7-14 days to deliver money from one part of the country to another. It would also take a number of visits to confirm if the money had actually reached its destination. The introduction of a mobile transfer of money through UDCs greatly reduced the uncertainty, which today takes only minutes to deliver money anywhere in the country. Although there are private mobile (phone) banking services nowadays, UDCs have remained a trusted option for the rural community to send and receive money. Also, more than 3,000 UDCs have been able to partner with many private banks in the delivery of money and remittances. The presence of private mobile banking, no doubt, has dented villagers' dependency on UDC.

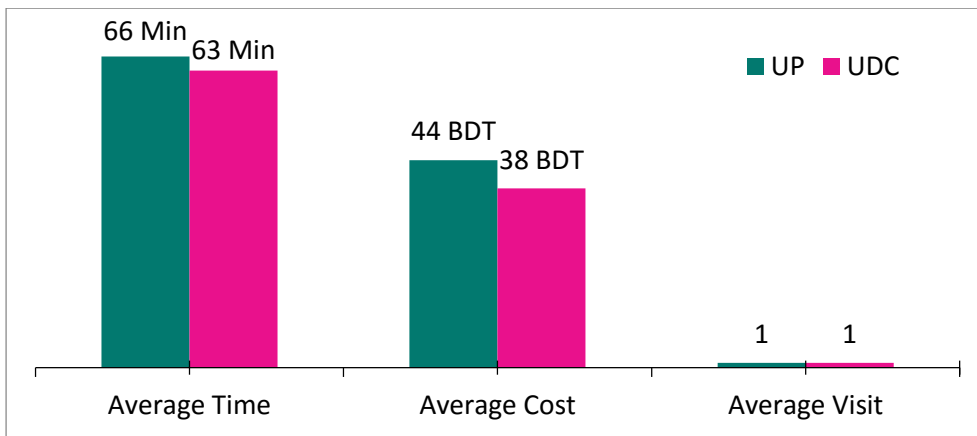
Utility bill payments: The UDCs also enabled a reduction in cost, time and visits to pay electricity bills for citizens. With the old manual process, citizens had to visit the designated bank to pay utility bills. Typically, only one bank is assigned at a sub-district level to collect the bill (15 km away), and the deadline to pay the bill is also set. Consequently, a big queue is always there at these banks where customers are rushing in to pay their bills. The process is further complicated because the bill payment is not served by a single bank officer; it has to go through the desks of 2 to 3 officers and long queue are common at all stages. All of these require huge amounts of time. However, with the establishment of UDCs and service process simplification of utility bill payments, life has become relatively easier for the rural citizens. There are no longer queues and customers can come to the UDC anytime, even after working hours and pay the bill electronically. Here, the customer does not need to stand in a queue

or have to go to several counters to complete the payment process. In case they do, their home is only 3 km away which would be 15 km if they were visiting the sub-district office.

3.2 Average time, cost and visit for different services under investigation

Chart 1 below shows that the average time saved for accessing mobile banking service from UDC is only 3 minutes (5%), while this is 14% for cost saving (6 BDT) and has no visit advantage.

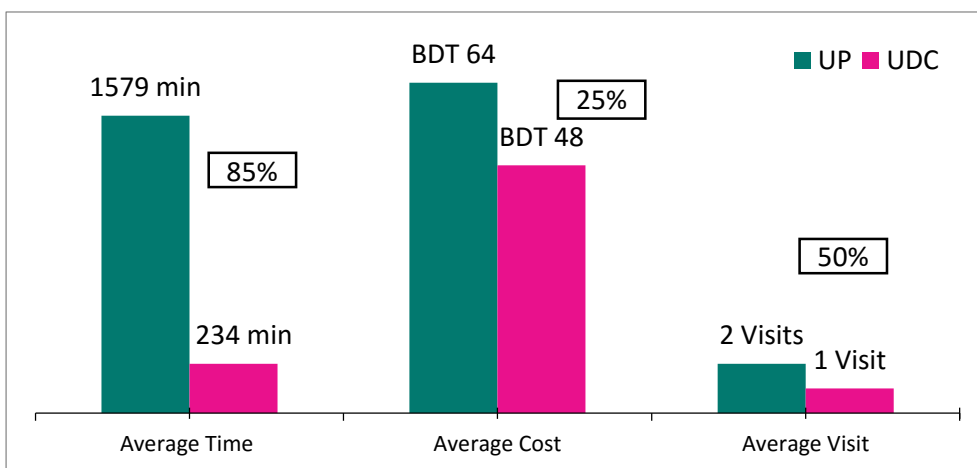
Chart 1: Average Time, Cost and Visit for Mobile Banking



Source: authors' estimation based on primary data

The average time saved obtaining a citizenship certificate is 85%, an average cost saving of 25% and visit saving of 50% from UDC compared to UP (Chart 2).

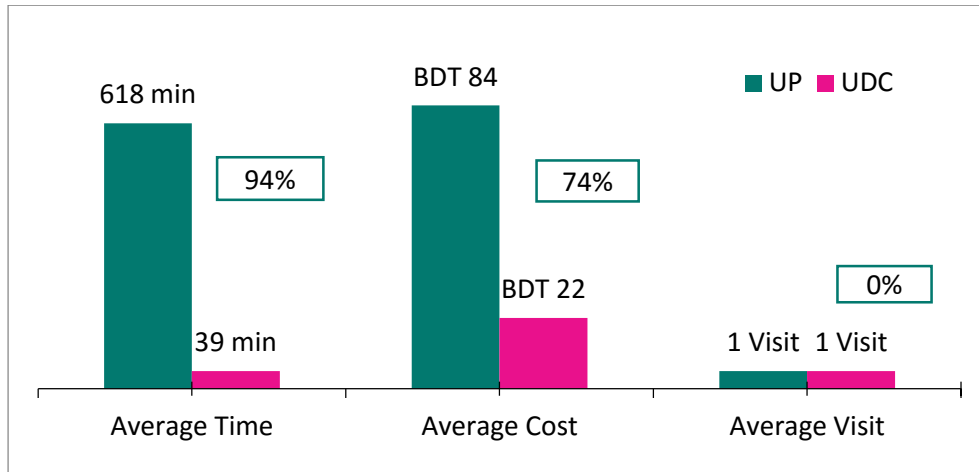
Chart 2: Average Time, Cost and Visit for Citizenship Certificate



Source: authors' estimation based on primary data

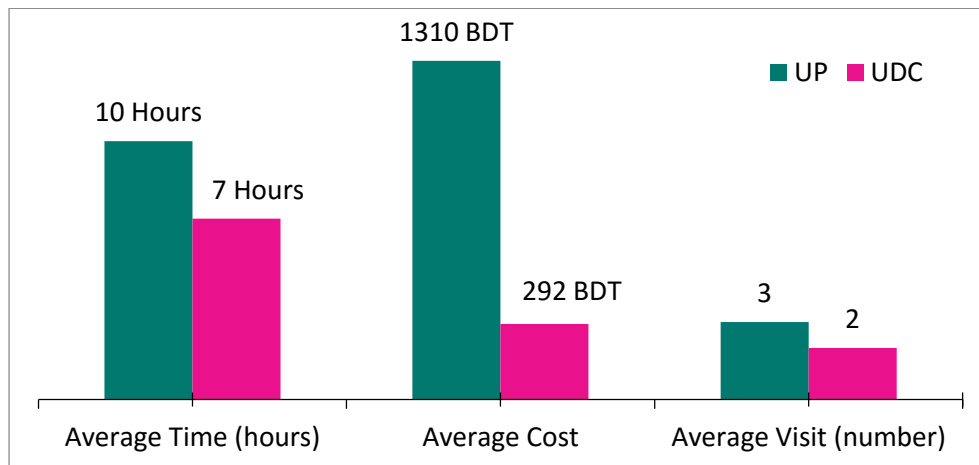
While the average time saving is 94% and the cost saving 74% for electricity bill payment through UDC (Chart 3). On the other hand, Chart 4 shows that the time saving is 30%, with a cost saving of 78% and a visit saving of 33% for a Machine Readable Passport application.

Chart 3: Average Time, Cost and Visit for Electricity Bill



Source: authors' estimation based on primary data

Chart 4: Average Time, Cost, Visit for Machine Readable Passport



Source: authors' estimation based on primary data

One notable feature of these services are that the higher the penetration or the larger the number of beneficiaries, the higher its benefit. Also services which are exclusive to UDCs, generate the highest

benefits. The other services which can also be availed from private service providers, such as mobile banking, generate fewer benefits.

4. Research Methodology

Cost-benefit analysis (CBA) is a technique used to compare the economic benefits of any project or service over its economic costs. CBA is a widely used criterion to evaluate the economic merit and feasibility of a project, to compare among different investment options, to assess business decisions, and to examine the worth of public investments. The three widely used measures for CBA in the previous literature are, namely, 1. Net present value (NPV), 2. Benefit-Cost Ratio (BCR) and 3. Internal rate of return (IRR). In this study we have used the NPV and BCR measure to quantify the relative benefits of the four selected services.

4.1 Net Present Value (NPV)

The net present value, defined as the sum of the present value of benefit and cost streams over a period of time, is one measure used to evaluate the contribution of secondary bond market development. This following specification of NPV is used.

$$NPV = \sum_{t=0}^T \frac{B_t - C_t}{(1 + \delta)^t} \quad (1)$$

where, B_t is additional benefits because of specific service accessed from UDC in year t ; C_t is the additional costs associated with the specific service in year t , and δ is the discount rate.

4.2 Benefit-Cost Ratio (BCR)

The benefit-cost ratio is a relative measure of CBA that is used to evaluate the payoff of any investment. This measure is calculated by dividing the total discounted benefits by total discounted costs.

$$BCR = \frac{\left(\sum_{t=0}^T \frac{B_t}{(1 + \delta)^t} \right)}{\sum_{t=0}^T \frac{C_t}{(1 + \delta)^t}} \quad (2)$$

where, B_t is benefits due to specific service in year t ; C_t is the annual expenditure in year t , and δ is the discount rate.

4.3 Assumptions used:

Benefits estimation:

The estimation of benefits is not so straight forward. Hence, we have made the following assumptions to calculate the benefits for a particular service from UDCs.

1. To estimate the benefit figure, we have assessed two different types of benefits, namely:
 - a. Time savings: We have converted the average time savings in receiving one particular service into benefits. For this purpose, we have considered the 50% of average wage² as value of time for average worker in Bangladesh to convert time savings into cost savings. This time savings also captures the savings of time from reduced number of visits to receive the particular service from UDC.
 - b. Cost savings: We have taken the average cost saving in receiving the same service before and after the introduction of UDCs.
2. We have information of the total number of served beneficiaries for the whole period, not for a particular year. To overcome this limitation, we have taken a yearly average number of beneficiaries. However, for the citizen certificate services, we have assumed that the yearly beneficiaries will be equal to the number of new births.
3. We have not used any lag effect to get the benefits from these services, as all of these are already operational.
4. Finally, we have used the standard discount rates provided by CCC, which are 3%, 5% and 10%.

Costs estimation:

There is no information on the cost of running one UDC. Therefore, in estimating costs we have to adopt certain strategies as follows:

1. We have collected costs for all the UDCs³. For this we have apportioned the annual development plan (ADP) allocation based on the share of service recipients under each

² Value of time for average worker in Bangladesh (50% of average wage) is BDT 7307 or USD 94.12. This information has been provided by the CCC.

³ "USD 40 million in set-up costs for 4500+ centers across all Union Councils, capacity development of over 9000 entrepreneurs, coupled with local- and national-level awareness development campaigns in media. Roughly 1% of the government's annual development plan is directed towards ensuring its sustainability," (Zaman, 2015).

category⁴. In addition to the ADP expenditure for UDCs, we have used the running costs as well⁵. These two together gives us the total cost for all UDCs for a given year.

2. Currently, there are about 100 unique services being provided through UDCs. As stated previously, 200m service transactions are conducted every year. As we do not have any explicit breakdown of the cost of delivering each service, we have apportioned the total cost based on the share of service transactions each service experiences in the total number of service transactions (i.e. if a service is provided 20m times in a year, it is apportioned 10% of the total cost)..
3. We have adjusted the ADP expenditure for next 20 years by using the trend growth rate of ADP.
4. We have not adjusted the running costs figures for UDCs in the following grounds:
 - a. The cost components might balance out as some costs e.g. equipment, rent for center might go up while some others, internet bill may fluctuate over time, etc.
 - b. For one particular service delivery, the adjustment in running costs will have insignificant effect.
5. We have taken the average number of total beneficiaries for each year and then we have divided the beneficiaries under specific service equally by counting the number of years since the service was introduced.

6. Empirical Findings: Cost-benefit analysis

Findings of the CBA analysis for the selected services are presented in Table 1 below. Based on our analysis, we can see that barring mobile banking, all other three services under investigation are generating economic benefits higher than the costs. This benefit-cost advantage sustains for 3%, 5% and 10% discount rates. Of the four services studied, MRP applications generate the highest benefits compared to its cost (benefit-cost ratio 22.13 with 10% discount rate), followed by electricity bill payments (benefit-cost ratio 15.08 with 10% discount rate). In the analysis, these two services generated a benefit-cost ratio six to seven times higher than those of the other two services. Of the

⁴ We don't have disaggregated costs information for providing each service. So, we have apportioned the total expenditure based on the share of that service in total number of services provided.

⁵ BBS (2014). *Census Report on Union Information and Service Centres (UISCs)*. Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning.

two other services, only citizen certificate with a benefit-cost ratio of 4.27 using 10% discount rate, generate an economic value well above its costs.

Mobile banking does not create an economic value which is more than the costs it takes (benefit-cost ratios of less than 1 for every discount rates considered). One reason might be that UDCs do not have comparative advantage in mobile transfer of money (only 5% time saving) over the private operators. The presence of private mobile banking has eroded the cost competitiveness of UDCs considerably to just about 3 minutes for a beneficiary. Another potential reason is the complexity in calculating costs for each service delivered by the UDCs in which costs of some services might have been exaggerated⁶.

Table 1: Results of CBA for selected services under UDCs

Indicator	Mobile banking service		Citizen ⁷ certificate		Electricity bill payment		MRP application	
	Costs	Benefits	Costs	Benefits	Costs	Benefits	Costs	Benefits
NPV(Million USD)								
3%	187.42	127.19	220.47	788.12	91.80	1,123.07	2.06	37.06
5%	147.86	106.54	173.92	653.64	72.42	940.74	1.63	31.05
10%	87.03	72.78	102.35	436.56	42.63	642.67	0.96	21.21
BCR								
3%	0.68		3.57		12.23		17.96	
5%	0.72		3.76		12.99		19.07	
10%	0.84		4.27		15.08		22.13	

Source: Authors' estimation

⁶ We don't have any explicit breakdown of the cost of delivering each service. We, therefore, apportioned the total cost of UDCs based on the number of beneficiaries for each service in the total number of service beneficiaries. Average cost of any type of service delivery in such is given equal weight. But service delivery time varies greatly across services. Costs in such are overestimated for services taking less than average time. But since we do not have data on actual service delivery time we had to rely on the average.

⁷ Actually, everyone needs a birth certificate at some point. Now-a-days even before the age of 5 years as guardians need to produce the birth certificate to get the child admitted in the school and many other purposes. So, even if someone does not collect the certificate in the first year, he/she will eventually collect it. And, now following law of large number, we can assume that this trend will be normally distributed and so the number will be the same as the number of child birth in each year. Now, there are urban and rural distribution of the population and only the rural people fall under the UDC jurisdiction. Hence, for our estimation, we have only taken into account the projected birth in the rural areas.

7. Conclusion

Overall, based on the cost-benefit analyses of this paper, it can be argued that services accessed through UDCs can be further expanded for wider development of marginalized people. For example, filing a GD and a FIR at the designated police stations can be done through UDCs more rapidly and in a friendlier manner. Rural people, being illiterate and resource poor, hardly appear in police stations in the event of oppression and repression. Reporting offences and incidences of injustice through UDCs may enable the marginalized poor to seek justice without fear and with less cost, time and visits. As a result, governance and democracy could see great improvement.

Secondly, opportunity for online applications for various social safety net programs and transfer payments can be done through UDCs. Currently, local government authorities select the beneficiaries of the safety net programs—often leading to nepotism and cronyism. The introduction of an online application from potential beneficiaries can eliminate bias and corruption.

Third, UDCs can also be utilized to offer online training programs, improving skills and entrepreneurship for the unemployed youths and help reducing unemployment in the country. Skills necessary for jobs available in a distant town or abroad can be conducted through UDCs to facilitate migration of surplus rural labour to high income urban or foreign destinations. In fact, migration of this kind is nowadays considered a cornerstone of eliminating poverty and seasonal famine (*Monga*) in northern Bangladesh. In this regard, UDCs can facilitate as a center to provide necessary information related to both internal and external migration.

Fourth, it appears that UDCs have a special edge as far as delivery of public services are concerned. It is important that government explores ways by which it can deliver the MRPs through UDCs, not just online application. Similarly, it can explore ways for investing in the citizen certificate system so that it can be integrated with the upcoming National Population Register (NPR). Thus, it is hoped that the present analysis will allow policymakers to undertake more investment in the ongoing services being delivered by UDCs in order to deepen their linkages for wider use and relevance.

Finally, in lieu with the above, the analysis is *not* suggesting that UDCs should avoid mobile money business opportunities. Our analysis suggests that UDCs cannot adopt a 'one-size-fits-all' approach to its service delivery provisions given that demand for each service will vary according to the regions. However, making some services ubiquitous will certainly help to get the most out of the UDC investments. Here, as the analysis of mobile transfer has shown, one will need to consider the

proximate competitive factors such as proximity, where private enterprises may be closer to the rural citizens than UDCs for certain public services.

References

- Archmann, S., and JC Iglesias (2010), eGovernment –a driving force for innovation and efficiency in Public Administration, European Institute of Public Administration, EIPA Maastricht.
- Bangladesh Economic Review (2012). Ministry of Finance, Government of Bangladesh.
- BBS (2014). Census Report on Union Information and Service Centres (UISCs). Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning.
- GoB (2015), *Seventh Five-Year Plan*, General Economic Division, Ministry of Planning, Government of Bangladesh.
- OECD (2010), *Efficient e-Government for Smarter Public Service Delivery, Assessment and Proposals for Action*, OECD e-Government Studies.
- Zaman, Hasanuzzaman (2015). Service delivery process innovation: insights from Digital Bangladesh, *Innovation and Development*, 5:1, 165-168, DOI: 10.1080/2157930X.2015.1009698
- Bangladesh Demographics Profile 2014
- http://www.indexmundi.com/bangladesh/demographics_profile.html

Bangladesh, like most nations, faces a large number of challenges. What should be the top priorities for policy makers, international donors, NGOs and businesses? With limited resources and time, it is crucial that focus is informed by what will do the most good for each taka spent. The Bangladesh Priorities project, a collaboration between Copenhagen Consensus and BRAC, works with stakeholders across Bangladesh to find, analyze, rank and disseminate the best solutions for the country. We engage Bangladeshis from all parts of society, through readers of newspapers, along with NGOs, decision makers, sector experts and businesses to propose the best solutions. We have commissioned some of the best economists from Bangladesh and the world to calculate the social, environmental and economic costs and benefits of these proposals. This research will help set priorities for the country through a nationwide conversation about what the smart - and not-so-smart - solutions are for Bangladesh's future.

SMARTER SOLUTIONS FOR BANGLADESH

For more information visit www.Bangladesh-Priorities.com

C O P E N H A G E N C O N S E N S U S C E N T E R

Copenhagen Consensus Center is a think tank that investigates and publishes the best policies and investment opportunities based on social good (measured in dollars, but also incorporating e.g. welfare, health and environmental protection) for every dollar spent. The Copenhagen Consensus was conceived to address a fundamental, but overlooked topic in international development: In a world with limited budgets and attention spans, we need to find effective ways to do the most good for the most people. The Copenhagen Consensus works with 300+ of the world's top economists including 7 Nobel Laureates to prioritize solutions to the world's biggest problems, on the basis of data and cost-benefit analysis.