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# Effects of Human Resource Management Practices on Labor Dispute of Readymade Garment Sector of Bangladesh

Md. Ziaur Rahman<sup>1</sup>

## ABSTRACT

*Labour dispute is the most important issue the readymade garment (RMG) sector of Bangladesh has been facing at present. Labour dispute (LD) creates lose-lose situation and impairs the interest of both the workers and employers and thereby creates barriers in achieving sustainable development goals (SDGs) by hampering economic development of the country. For achieving SDGs within due times, it is necessary to maintain harmonious industrial relation (HIR) in RMG sector. In a HIR both the employers and workers change their mind set up and builds an environment of mutual understanding and trust. Workers with high motivation and commitment consider the interest of the employers as their own interest and always try to avoid dispute. HIR can be maintained through proper exercise of human resource management (HRM) practices. As LD is high in RMG sector, it is necessary to know to what extent HRM practices are exercised in this sector and whether these practices are responsible for labour dispute or not. To do so a questionnaire survey has been conducted on 384 workers of grade IV to grade VII of four major districts. Five focus group discussions and eight key informant interviews also have been conducted to triangulate the data. The findings indicate that HRM practices are poorly exercised in this sector. Among these practices inadequate wages, irregularity in paying wages, sudden dismissal, misbehavior and using slang language, inadequate scope for negotiation are important.*

**Keywords:** RMG, HRM, Labour Dispute, Compensation, Harassment, Labour-management Relations

## INTRODUCTION

Dispute refers to any type of disagreement which arises from the conflict of interest among parties. Labour dispute (LD) is a state of disagreement over a particular issue or group of issues over which there is conflict between workers and employers, or about which grievance is expressed by workers or employers,

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or about which workers or employers supports other workers or employers in their demands or grievances (ILO 1993). It may be related to terms and conditions of employment, work or working environment or not. It is found all over the world in different forms and degrees especially in the capitalist economies where peoples sold their labour to employers in return of some compensation. Bangladesh is of no exception. A number of LDs occur in various sector of Bangladesh. However, dispute in Readymade Garment (RMG) sector is more prevalent than any other sector.

The workers of RMG sector showed their protests and involved in different LDs in different times against the negligence of the government as well as the employers. The massive LD of 2006, 2010, 2012, and 2016 are some examples of such protests. On an average 259 LDs occurred in different sector of Bangladesh during the period 2008 to 2014 while the average number of LD in RMG sector is 175 (Hossain 2012). Another study report prepared on the basis of news paper reports shows that on an average 262 LDs occurred in different sector of Bangladesh during the period 2015 to 2019 out of which 48 percent dispute occurred in RMG sector (BILS 2019).<sup>2</sup> These data indicate that LD is more prevalent in RMG sector.

The effect of these LDs is not good for the employers as well as for the workers. The employers are affected as their production is hampered, machine and equipments are damaged, needs more time to send good to buyers, and their image in international market is demolished. The workers are affected as they lose their wages and jobs, police and external miscreant beats them, and employers file cases against them. All these effects hamper economic growth and development of the country which is needed to attain sustainable development goals (SDGs). Bangladesh is committed to attain SDGs by alleviating poverty, hunger, inequality through ensuring decent works, peace and justice by 2030. For attaining SDGs, she has to take effective measures to reduce LDs to a minimum level in the 14.07 percent gross domestic product (GDP) contributory and 84 percent export earning contributing RMG sector (Islam, Rakib and Adnan 2016).

There are various reasons behind these LDs. The employers provide inadequate wages and benefits to workers to lead their daily lives (Hossain 2012, Moazzem and Arfanuzzaman 2018). They do not pay overtime payment as per laws (Hossain 2012). Although they are paying less, they do not pay that wage and overtime payment at times (Rahman, Bhattacharya and Moazzem 2008, Kamal, Billah and Hossain 2010). When new wage scale comes in effect, they do not implement this new scale (Hossain 2012). They suddenly retrench workers or close down their factories without any notice and compensation (Ahmed, Raihan and Islam 2013, Choudhury and Rahman 2017). They misbehave, beat and punish

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<sup>2</sup> For the year 2019, the number of dispute from January to June 2019 has been taken into account.

workers for silly mistakes (Himi and Rahman 2013, Islam and Ahmed 2014), force workers to do overtime works or night duty, and force workers to work extra hours without any pay (Ahmed, Raihan and Islam 2013, Hasan, Islam and Arifuzzaman 2015).

The employers do not provide any leaves as per law (Hasan, Islam and Arifuzzaman 2015, Choudhury and Rahman 2017). Poor working conditions (Kamal, Billah and Hossain 2010, Himi and Rahman 2013), absence of labour union (LU) (Khan 2011, Islam and Ahmed 2014), rumors (Khan 2011, Hossain and Afroze 2012), aggressive behaviour of workers (Bhuiyan 2013), violent role of police, lack of training and promotion opportunities (Ahmed, Raihan and Islam 2013, Himi and Rahman 2013) and too much work loads (Ahmed, Raihan and Islam 2013) also responsible for LDs. Some of these reasons are related to human resource management (HRM) practices while others are not. In this study an endeavor has been taken to indentify to what extent the HRM practices are responsible for LDs.

### **Objective of the Study**

The objective of the study is to identify what HRM practices are exercised by the RMG factories and to what extent these HRM practices are responsible for LDs of the RMG sector.

### **Methodology of the Study**

It is a mixed research where both qualitative and quantitative approach has been used to fulfill the research objective. For the purpose of the study, both primary and secondary data have been used. Secondary data are collected from various books, research articles, dissertations, newspaper reports, different documents and websites. Primary data are collected from workers, mid-level management, owners of RMG sector, human resource (HR) experts, trade union leaders and members of civil society. A questionnaire survey of 384 respondents has been conducted among the workers of grade IV to grade VII of RMG sector of Dhaka, Gazipur, Narayanganj and Chattogram districts. Probability Proportional to Estimated Size (PPS) sampling technique has been used to distribute respondents among the study areas.

At first, respondents are distributed on the basis of proportion of number of factories among four districts. Then each district's respondents are subdivided into three factory type wise i.e. woven, knit and composite. The number of respondents fall on each factory type is then subdivided into two gender type i.e. male and female. At last, each gender type respondents are distributed among grade IV to grade VII workers on the basis of their proportion. Five focus group discussions (FGDs)—two in Dhaka, one in Gazipur, one in Narayanganj, one in Chattogram, and eight key informant interviews (KIIs) have been conducted to

fulfill the purpose.

**CONCEPT OF HUMAN RESOURCE MANAGEMENT PRACTICES**

Human Resource Management (HRM) deals with the people or personnel related activities or practices of an organisation. However, the range of activities or practices may differ from person to person, or organisation to organisation. There is no universally accepted definition of HRM that could specify HRM practices clearly. Different authors and HR specialists have defined HRM differently.

Though different authors have defined HRM differently, they have all emphasized the effective utilization of the workforce for accomplishing the organisational goals and objectives. Some authors give emphasis on enhancing commitment, quality and flexibility through motivation, and others give emphasis on strategic integration and cost effectiveness. To sum up, it can be said that HRM is concerned with policies and practices that ensure the best use of the human resources for fulfilling the organisational objectives as well as individual goals by providing motivation to them so that they can be committed, qualified and flexible. For this research purpose, all HRM policies and practices have been broadly divided into six categories (Table-1)

**Table-1:** Functions of Human Resource Management

<b>HRM Policies and Practices</b>	<b>Human Resource Management Activities</b>	<b>Referencing Authors</b>
HR Planning and Analysis	Job evaluation and design; forecasting and planning; Job analysis; Maintaining HR information systems	(Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Bratton &Gold 2012), (Flippo 2010), (Stewart & Brown, 2011), (Paauwe & Richardson 1997), (Guest 1997),(Arthur 2015)
Recruitment and Placement	Ensuring Equal Opportunity; Interviewing Job Candidates; Employee testing and Selection; Job Contract; Providing Appointment letter; Termination of Job	(Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Bratton &Gold 2012), (Flippo 2010), (Stewart & Brown, 2011), (Paauwe & Richardson 1997), (Guest

		1997),(Arthur 2015), (Patterson et al. 1997), (Moailer & Cowling 2013), (Pfeffer 1994),
Training and Development	Orientation and Socialization; Appraising Performance; Training; Developing Managers; Managing Quality and Productivity; Managing Careers	(Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Bratton &Gold 2012), (Flippo 2010), (Stewart & Brown, 2011), (Paauwe & Richardson 1997), (Guest 1997),(Arthur 2015), (Patterson et al. 1997), (Moailer & Cowling 2013), (Pfeffer 1994),
Compensatio n and Benefits	Establishing Pay Plan; Wages and Salary Administration; Overtime Pay; Bonus; Profit Sharing; Insurance Benefits; Retirement Benefits; Severance Pay; Child Care; Canteen Facilities; Rewards- for-performance; Financial Incentives; Benefits and Services; Compensation for Job Termination	(Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Bratton &Gold 2012), (Flippo 2010), (Stewart & Brown, 2011), (Paauwe & Richardson 1997), (Guest 1997),(Arthur 2015), (Patterson et al. 1997), (Moailer & Cowling 2013), (Pfeffer 1994),
Employee Health, Security and Safety	Health and Wellness; Working Environment; Employee Safety and Security; Risk Management	(Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Flippo 2010), (Stewart & Brown 2011), (Pfeffer 1994),

Employee/Labour Relations      Sharing Information; Character, Personality, Expectation and temperament Handling; Interpersonal and Intra-personal Relationship; Managing Change; Participatory Management; Trade Union and Labour Relations; Lay off and Dismissal; Consultation and Collective Bargaining; Dispute Handling;      (Dessler 1999), (Mathis & Jackson 2009), (Stredwick 2005), (Bratton & Gold 2012), (Flippo 2010), (Stewart & Brown, 2011), (Paauwe & Richardson 1997), (Guest 1997), (Arthur 2015), (Patterson et al. 1997), (Moailer & Cowling 2013), (Pfeffer 1994),

## **HUMAN RESOURCE MANAGEMENT PRACTICES IN RMG SECTOR**

### **Human Resource Planning & Analysis**

There is a lacking in designing proper HR planning in the RMG sector of Bangladesh to recruit employees when demand increases although the employers of RMG factories do job analysis to some extent. The employers do not have any succession planning or replacement chart to fill any vacant post although they sometimes transfer employees from one post to another post to fill these vacant posts but these are not predetermined (KII-5). They temporarily fill the vacant post with the employees who do not possess the skills to serve that post in order to continue the operation. The employers are not capable to recruit new employees instantly to fill the vacant post.

The survey data shows that the employers do not recruit extra workers to lessen the works loads when there is high works pressure in RMG factories. More than 70 percent workers reported that employers do not recruit new workers to decrease works loads. They use the existing workforce to deal with the extra works loads by forcing them to overtime or night duties (64.3 percent). These data indicate that either there is no HR planning in the RMG sector or there is a problem in the implementation of HR planning and it can be claimed that there is a lacking in HR planning and analysis in the RMG sector of Bangladesh.

### **Recruitment & Placement**

Due to huge supply of workers the RMG sector of Bangladesh, employers rarely use advertisements, professional agencies or online recruiting. The employers often use employee referrals as a source of recruiting. The survey data shows that more than forty five percent workers are recruited through employee referrals and 36.2 percent are recruited by walk-in interview. Due to employee referrals employers can get realistic information about employees and employees also can

get real picture of the job. It also reduces the costs of recruiting of the employers. However, through employee referrals employees may recommend workers to recruit who do not possess the skills required to perform the jobs (DeCenzo, Robbins & Verhulst, 2013). Walk-in-interview also saves employers` time and money. When employers cannot meet the demand of job vacancies through employee referrals and walk-in-interviews, then they circulate leaflet and hang on sign board (13.5 percent) offering jobs to workers.

After recruiting workers, selection of best candidate is needed. The employers of RMG sector do not follow proper selection procedure to appoint job candidates. Most of the cases, employers take job related interviews to select workers. The survey data shows that in 68.2 percent cases job related interviews and in 62.8 percent cases oral interviews of the workers have been taken before providing them jobs. However, technical skills are often required in RMG sector which cannot be ensured by these interviews. Appointing workers without proper testing means fill up the factory with unskilled and inexperience workforce, which may cause chaotic situation in the factory.

After appointing, the employers must provide appointment letter and identity card to the workers (BLA 2006). However, some employers show negligence in providing appointment letter to the workers. The survey shows that 32 percent workers do not get any appointment letter from their employers. The claim is supported by Rahman, Bhattacharya and Moazzem although they claim the rate is above seventy percent (Rahman, Bhattacharya and Moazzem, 2008). Again 9.4 percent workers do not get identity card from the employers. The identity cards and appointment letters are proof of employment of the workers which could be used for compensation in case of accident or dismissal.

The workers are promoted or transfer to better position on the basis of their job performances not on the basis of their seniority. The survey data shows that two-third workers are always promoted on the basis of their performance. Sometimes employers consider seniority along with job performance of the workers in providing promotion or transfer while 18.8 employers consider workers loyalty. As seniority is given less emphasis on promotion, it shrinks career development possibilities of the workers and the senior workers become frustrated regarding their job careers.

### **Training & Development**

The garment factories do not have sufficient training facilities to provide formal training to workers. The survey data shows that 24.5 percent RMG factories do not have training facilities. The subject matter of training is also important to workers. If the subject matter is linked with the career development of the workers, they become more motivated and productivity of the organization increases. However, in the RMG sector, very few employers provide training that

is linked with career development of the workers. The survey data shows that only 9.7 percent workers have experienced skills development training. Most of the training is provided on fire and safety (72 percent) related issues in order to avoid incidence.

However, these fire trainings are not effective and are not provided to all workers. The workers claim that the fire training are initiated once a month or once in every two month when work pressure is relatively low in factory. The management suddenly announces just 15 minutes before closing the factory that today your fire training will be held and they make gathered workers at ground floor and instruct how to use fire extinguishers and shows trial about how to move from the factory (FGD-2). However, they do not provide fire training to all workers. About 45 percent workers reports that only selected workers are called for training while 28 percent claims that training is provided to new workers.

### **Compensation & Benefits**

The Minimum Wage Board (MWB) has determined the minimum wage for garment workers at BDT 8000 (UNB 2018). However, the wages declared by the MWB was not satisfactory to the workers and their unions as the wages is too low to meet their basic needs. The survey data reveals that most of the RMG workers are not satisfied with their wages and other wage related payments except attendance bonuses and encashment of earned leave. About 68.2 percent workers are dissatisfied regarding their wages. The workers are most dissatisfied regarding their house rent allowances (70.1 percent) as most of the garment factories are in urban areas and workers cannot rent houses with the allowances provided by the owners.

### **Adequacy of wages**

The minimum wage which is set by the MWB is not adequate to meet the daily life of the workers of RMG sector. The living cost of RMG workers living in Dhaka and other adjacent cities in 2016 estimated by global living wage coalition indicates that living cost in Dhaka city was BDT 16460 and other adjacent cities was BDT 13630 (GLWC, 2016). Another study shows that on average a family needs BDT 22465 to meet its monthly expenditure on average (Moazzem & Arfanuzzaman, 2018). There is huge gap between family expenditure and the minimum wage of the workers. The workers usually take loans to meet this earning gap and have to pay installments which also increase their living cost. The wages provided to the RMG workers are not only inadequate but also fewer than the government allocation for a prisoner or a hospitalized person (Hossain, 2012).

### **Schedule of Payments**

Irregularity in payment of wages and other benefits is a major cause of workers dissatisfaction against the management and employer. Some of the employers do not pay their wages within the due time of payments as per law. The study shows that about one-sixth workers do not get their wages in due time. More than fifty percent employers make delay more than two weeks and on average the employers maintain 13.44 days delay in paying workers` wages and salaries.

### **Overtime Payments**

The workers often engage themselves in overtime works or any other jobs to add any extra earning to their families. The survey data shows that more than ninety five percent workers of RMG sector involve in overtime works. On an average a worker engage in overtime works for 2.52 hours which is higher than the law provided in the Bangladesh Labour Act (BLA) 2006. The workers of RMG sector are engaged in works more than sixty hours and sometimes, have to attend in works in weekly holiday which is a clear breach of law. In most of the cases, the employers force the workers to perform overtime works. The survey data reveals that about three-fourth workers have responded that the overtime works has been compulsory for them. Although the overtime works is mandatory for most of the cases, the payments for these works are not satisfactory to the workers. The study shows that about two-third workers have responded that the payment for overtime works have not been satisfactory. The employers do not even pay the workers overtime payments in time. The study shows that about one-third workers of the study respond that the employers make fifteen to forty five days delay in paying their overtime payments.

### **Night Duties**

The employers make night duty mandatory for the workers when work load is high. The survey data reveals that almost one-third workers of RMG sector have to perform night duties. However, female workers are also forced to work at nights by the employers. The survey data shows that 25.8 percent female workers are forced to work in night shift although the BLA 2006 clearly states that no female workers can be employed in night duty (BLA 2006). The employers never take any written consent from the female workers regarding their night shift. If any workers disobey the employers regarding night duties or remain absent at night duties, it is considered as misconduct in 29.3 percent cases which may result in retrenchment while 13.3 percent workers have responded that labour-management relation deteriorated if they refuse to do work at night.

### **Leaves and Holidays**

A large portion of RMG workers do not get casual leave as per law. The study shows that 43.5 percent workers do not get casual leave when it is needed to them. The lower level management of an organization always tries to avoid casual leaves of the workers as it hamper the regular production of the unit and as the leave cannot be store for the next year as per law (FGD-2). As medical certificate is needed to get sick leave, one-forth worker does not get sick leave when they become sick. All the employers do not appointed registered doctor to their factories and it is costly for a worker to visit doctor and get certificate from him. The factories where employer`s appointed registered doctor is available, the doctor does not certify the worker for leave if the worker`s condition not critical (FGD-4).

The study reveals that average duration of festival leaves provided to the workers is 8.68 days which is much lower than the provision of law. Moreover, workers have to work on weekly holidays as general duties from one month earlier of every Eid to get more holydays during Eid (FGD-1,2&3). There is also provision of maternity leave on conditions for pregnant female workers. However, about 11.98 percent female workers do not get maternity leaves from their employers and 17.7 percent employers do not provide wages with leaves.

### **Compensation for Retrenched/Discharged/Dismissed Workers**

In the RMG sector of Bangladesh, retrenchment and dismissal occurs several times. The study shows that 62.2 percent workers have observed retrenchment or dismissal at their enterprises. There is a provision of compensation regarding retrenchment or dismissal in the labour law. However, 37.8 percent cases employers do not provide any compensation in case of retrenchment or dismissal. Whatever employers provide as compensation, they make delay in paying such compensation

### **Employee Benefits**

Employee benefit facilities are very limited in RMG sector. The RMG factories do not have adequate provident fund or group insurance facilities. The study shows that only 23.4 percent cases there is either provident fund or group insurance or welfare fund facilities.

### **Health, Safety & Security**

Every organization has a moral and legal responsibility to ensure that workplace where the employees would be engaged in works is safe and free from unnecessary hazards. The surrounding environment of the workplace should be out of danger and safe. It must not be injurious for the physical and mental health

of the workers so that they can exert full attention to their works without having any tension.

### **Health and Hygiene**

Sound physical and mental health is necessary for workers of any organization to properly concentrate on works and improve productivity. The workers of RMG sector do not get enough rest as described in law as the work load in the factory is very high and employers set their target in such a way that they cannot take any rest. They have to complete their production target within the eight working hours. If anyone fails to meet the target he/she has to work extra hours without any pay (FGD-3). Excessive works without taking rest and meals instantly may increase productivity but it hampers physical and mental health of the workers that lead them ill-health conditions and in the long run reduce their productivity.

The survey data shows that 16.4 percent respondents are not satisfied with the available facilities of working environment. The reasons behind this dissatisfaction are lack of fresh drinking water (12.2 percent), lack of clean toilet (2.6 percent) and high temperature in the factory. The workers have reported that clean toilet, soap, towel and tissue are available when any visitor comes to visit the factory but after his return, these facilities no longer exist and employers have installed water purified long ago and they never check and change these filter routinely (FGD-2&4). Due to lack of fresh drinking water, workers have to drink this unclean water and suffer from various water-borne stomach diseases (FGD-4).

### **Safety and Security**

Every employer should ensure safe and risk free workplace for his/her workers. However, the study shows that 12.5 percent workers show their dissatisfaction regarding safety and security measures of the factory due to small factory, lack of training, merchandise on stairs, main gate is kept closed during operation. In 38.8 percent cases workers are not informed about occupation risk. Due to lack of information regarding occupational risk a number of incidences occur in RMG factories. The study shows that 57.6 percent workers have observed incidences in their factories during works. The most common form of incidence is 'pricking of finger by needle'. Fall down due to dizziness, cutting hand, splitting foot and break down of glass of windows are also happened.

### **Workplace Harassment and Violence**

Workplace harassment and violence is common in the RMG sector of Bangladesh. The study shows that two-third workers are sufferer of oral harassment, half of the workers are sufferer of mental, one-third workers are

sufferer of physical harassment and five percent workers are sufferer of sexual harassment and violence. Most of the cases, personnel engaged in lower level management—supervisor, line chief or production manager initiate these harassment. The reasons for these harassment are doing mistake in works (14.3 percent) or low productivity (12.2 percent) in case of physical; absenteeism (25.3 percent), low productivity (14.6 percent) in case of mental; inability to fulfill the production targets (46.9 percent) stipulated by their employers or works fault (15.6 percent) in case of oral harassment. Throwing buds or slapping in case of physical, giving more workloads or making standing in front of all workers in case of mental, using slang language or misbehaving in case of oral, and touching body or unethical offer in case of sexual harassment are important mode of harassment.

As most of the harassment is caused by officials who are involved in management of the factories and hold relatively upper position compared to the workers, (72.1 percent) workers do not show reaction against them in fear of losing jobs. As getting new job is a difficult task and also time consuming, and without jobs their family will suffer livelihood problem, they accepted these harassment as fait accompli. However, 22.8 percent victim workers have personally protested against their harassment.

## **LABOUR-MANAGEMENT RELATIONS**

Labour-management relation is the most vital part for any organization as it is associated with diverse and complex set of aspirations, needs, attitudes and aptitude of both the employer and the workers and is regulated by the state. It also depends on political, economic and social environment of the organization where it operates.

### **Gender Discrimination**

Any type of discrimination and nepotism hamper harmonious labour relations. In the RMG sector of Bangladesh, 8.3 percent female workers do not get equal wages as per male workers although they do the same jobs. The discrimination in case of promotion is, however, more intensified. The survey reveals that about 35.2 percent female workers are victims of employers` discriminatory decisions regarding promotion. The reason behind this discrimination is that the employers usually mark the workers as best performer whose productivity is high and choose those persons for promotion who are loyal to them (FGD-4).

### **Participation in Decision Making**

In the RMG sector, workers are not allowed to take part in decision making process. The survey shows that employers never discuss with workers regarding

transfer, promotion, overtime or night duties in 53.9 percent cases. The employers just declare and inform their decisions to the workers in a meeting or out of meeting.

### **Unions and Collective Bargaining**

Generally, workers join labour unions (LUs) to increase their bargaining power in the bargaining table with their employer to safeguard their wages, bonuses, benefits, compensation, overtime works, night duties and any other employment related facilities and conditions. However, establishment of LUs and workers joining to these LUs is not satisfactory in the RMG sector. The survey data reveals that only one percent workers have responded that there is LU at their organization. The main reason for this low percentage is employers' resistance in forming and joining LUs at their enterprises. The workers who try to establish a LU at their organization or assist in forming LU or become member of a LU, the employers would dismiss those workers one after another. The workers even become a member of a LU federation very secretly (FGD-2,3&4). Sometimes the employer himself establish LU at his enterprise with the help of his loyal workers and provide membership to almost all workers so that they cannot a member of other LU because the labour law states that a worker cannot be member of more than one LU within the same organization (BLA 2006).

As the number of LU is very limited in this sector, existence of collective bargaining agent (CBA) is also very limited. However, some of the LUs are established by the loyal workers of the employers that makes CBA of those enterprises under question. The survey data reveals that CBA is available only in 2.1 percent organizations. The workers claims that if the employers allow LU formation at their organization and leaders are elected through open ballot in formal election, then he/she can negotiate any claims of workers with employers and employers also transmit information to the workers through him/her and thereby the organization can avoid any unexpected situation like strike (FGD-1).

### **Dispute Settlement**

Due to lack of representative of workers in the RMG sector, dispute cannot be settled initially as the number of LUs and CBA is very limited in this sector. The workers even do not know the legal procedure of dispute handling. Most of the cases (80 percent), workers try to communicate with management regarding their claims. However, employer almost all times do not respond to the workers claims. Once, to create more pressure upon the employer workers go for illegal dispute and stop their works. The situation goes out of control and third party intervention become essential at this stage. Government official from Department of Inspection for Factories and Establishments or Department of Labour, politicians and federation leaders as a third party settle disputes at the final stage by

negotiating with both the parties.

## CONCLUSION

In the RMG sector of Bangladesh, the HRM policies and practices are not satisfactory at all. There is no proper HR planning to meet emergency labour needs, no formal procedure to recruit and select skilled personnel or to promote them, no skill enhancing formal training, no social training, inefficient fire and fast aid training, inadequate wages and benefits, delay in payments of wages and overtime payments, high work pressure, compulsory night duty, non-compliance in case of leaves and holidays, no social security programs, no security of jobs, in adequate supply of drinking water at workplace, no trade union and CBA in the RMG sector of Bangladesh. The data regarding HRM practices indicate that workers are very much dissatisfied regarding the HR policies and practices. As the HRM practices do not satisfy them, rather de-motivate them and they do not consider themselves as an integral part of the organization.

As a result, their integrity and commitment towards the organization dissolves and they initially show non-cooperation with the employers. They strategically want to reduce their productivity and claims that their production target is too high to reach. However, due to employer's strong control over production target, they cannot exert their grievances out of their mind. As there is no LU and CBA in within the factory, they also cannot transmit their grievances to the employers. However, in some cases, when workers express their grievances to the management, the management most of the cases do not consider workers' claims. These accumulated grievances and frustrations are sometimes expressed by workers through labour dispute.

## REFERENCES

- Ahmed, S., Raihan MZ. & Islam, N. 2013. 'Labor Unrest in the Readymade Garment Industry of Bangladesh.' *International Journal of Business and Management*, Vol. 8, No. 15, pp.70-79
- Arthur, D. 2015. *Fundamentals of Human Resources Management*. AMA Self-Study.
- Bhuiyan, MI. 2013. Reasonable Wages for Workers to Eliminate Unrest in Bangladesh's Ready-made Garments (RMG) Sector. Working Paper Series 17, Bangladesh Development Research Center. pp. 9-11
- BILS. 2019. Labour Market Situation, Bangladesh Institute of Labour Studies (BILS) <http://bilsbd.org/labour-market-situation/>
- Bratton, J. & Gold J. 2000. *Human Resource Management: Theory and Practice*. 2nd ed. Lawrence Erlbaum Associates, Inc.

- Choudhury, S. & Rahman, MH. 2017. 'Labor Unrest in the Ready-Made Garment Industry of Bangladesh: Causes and Consequences.' *European Scientific Journal*. Vol. 13, No. 34. pp.93-97
- DeCenzo, D.A., Robbins, S.P. and Verhulst, S.L., 2013. *Fundamentals of human resource management*. 11th ed., John Wiley & Sons. 147
- Department of labour, Ministry of Labour and Employment, Government of Bangladesh accessed October 13, 2019 <http://103.48.18.197/bn/trade>
- Dessler, G. 1999. *Human Resource Management*. 7th ed. Prentice Hall.
- Flippo, EB. 1976. *Principles of Personnel Management*. McGraw-Hill.
- Hasan, K., Islam, A. & Arifuzzaman, M. 2015. 'A Study on the Major Causes of Labour Unrest and Its Effect on the RMG Sector of Bangladesh.' *International Journal of Scientific & Engineering Research*. Vol. 6, Issue 11, pp.200-212
- Himi, SA. & Rahman, A. 2013. 'Workers' Unrest in Garment Industries in Bangladesh: An Exploratory Study.' *Journal of Organisation & Human Behaviour*. Vol. 2 Issue 3, pp.49-55
- Hossain, J. & Akter, A. 2016. 'State of Bangladesh Garment Sector Tripartism and the Scope Harmonious Industrial and Labour Relations,' *Bangladesh Institute of Labour Studies* vol.19 Issue 2, p.7-34
- Hossain, J. 2012. 'Economic Security for the Working Poor? Trade-linked Labour Standards, Workers' Rights, and the Politics of Representation of Bangladesh's Garment Workers.' PhD Dissertation, University of Trento, pp.178-180
- Hossain, CG. & Afroze, A. 2012. 'Recent Unrest in the RMG Sector of Bangladesh: Is this an Outcome of Poor Labour Practices?' *International Journal of Business and Management*. Vol. 7, No. 3, pp.206-215
- ILO 1993. 'Resolution Concerning Statistics of Strikes, Lockouts and other Action Due to Labour Disputes.' *International Labour Organisation (ILO)*, pp.2-3
- Islam, MS., Rakib, MA. & Adnan, A. 2016. 'Ready-Made Garments Sector of Bangladesh: Its Contribution and Challenges towards Development.' *Journal of Asian Development Studies*. Vol. 5 Issue 2, pp.50-61
- Islam, N. & Ahmed, S. 2014. 'Socioeconomic Factors and the Labor Unrest in Ready-made Garment Industry of Bangladesh.' *Journal of Education Research and Behavioral Sciences*. Vol. 3(2), pp.65-71
- Kamal, M., Billah, MM. & Hossain, S. 2010. 'Labor Unrest and Bangladesh Labor Act 2006: A Study on Ready Made Garment Factories in Gazipur.' *Journal of Business and Technology*. Vol. V, Issue 2, pp.8-17
- Khan, MAI. 2011. 'Labor Unrest in the RMG Sector of Bangladesh: A Public-Private Cooperation Perspective.' Master Thesis, Department of General and Continuing Education, North South University, Dhaka, pp.42-54

- Moiler, C & Cowling, A. 2013. *Managing Human Resources*. 3rd ed. Routledge.
- Mathis, RL. & Jackson, JH. 1991. *Human Resource Management*. 9th ed. West Publishing Company.
- Moazzem, KG. & Arfanuzzaman, M. 2018. *Livelihood Challenges of RMG Workers: Exploring Scopes within the Structure of Minimum Wages and Beyond*. CPD Working Paper 122. Centre for Policy Dialogue (CPD)
- Paauwe, J & Richardson, R. 1997. 'Introduction'. *The International Journal of Human Resource Management*. Vol.8 No.3, pp.257-262
- Patterson, M.G., et al. 1997. *Impact of People Management Practices on Business Performance*. Institute of Personnel and Development, London.
- Pfeffer, J. 1994. *Competitive Advantage through People Unleashing the Power of the Workforce*. Harvard Business School Press, Boston.
- Rahman, M., Bhattacharya, D. & Moazzem, KG. 2008. *Bangladesh Apparel Sector in Post MFA Era: A Study on the Ongoing Restructuring Process*. Centre for Policy Dialogue in association with IFC and SEDF, Dhaka
- Stewart, GL. and Brown, KG. 2011. *Human Resource Management: Linking Strategy to Practice*. 3rd ed. John Wiley & Sons Inc.
- Stredwick, J. 2005. *An Introduction to Human Resource Management*. 2nd ed. London: Elsevier Butterworth-Heinemann.
- The Bangladesh Labour Act 2006
- The Global Living wage Coalition, accessed January 29, 2020 <https://www.globallivingwage.org/living-wage-benchmarks/urban-bangladesh/>
- UNB, 'Gazette published fixing BDT 8,000 as minimum wage for RMG workers' United News of Bangladesh(UNB), November 26, 2018 accessed January 19, 2020 <https://unb.com.bd/category/Bangladesh/gazette-published-fixing-tk-8000-as-minimum-wage-for-rmg-workers/7285>.



## **Methodological Issues in Suicide Research in Bangladesh**

Anisur Rahman Khan <sup>1</sup> and S. M. Anowarul Kayes Shimul<sup>2</sup>

We are writing to you to allow us to enter into an ongoing debate concerning a write-up titled, “Young teenage suicides in Bangladesh – are mandatory Junior School Certificate exams to blame?” published in ‘International Journal of Mental Health and Addiction’ by Mamun and Griffiths (2020a). Arafat (2020), a researcher from Bangladesh, initiated the debate through a letter to the editor of that journal raising several theoretical and procedural/methodological flaws of the original publication of Mamun and Griffiths (2020a). Arafat (2020) finds this publication as “potentially flawed” and “purely hypothetical” (p.1). Hereafter, Mamun, and Griffiths (2020b) categorically refuted each of the claims raised by Arafat (2020) to justify their stance and flows writing another letter to the editor. Space will not allow us to touch upon each of their arguments and counter-arguments rather we would shed light on the major issues of their dissonance cornering the methodological issues. At the same time, we would also highlight our opinions in this regard.

Arafat (2020) raised serious concerns about the usefulness of newspaper sources to draw any conclusion with regards to the tacit causal relationship between teenage suicide and Junior School Certificate exam results. Whilst Arafat claimed insufficiently of newspaper sources, Mamun and Griffiths (2020b) argued that they had used the basic facts from the newspaper sources to report their findings only. In their words, “The information in the media reports that we extracted were neither imagined nor suggested. They were reported and we faithfully reproduced what we found (p.4). Despite their claim, we think their conclusion was pseudo-rational (not reasonable) as they did not compare what

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was the nature of teenage suicide before the introduction of Junior School Certificate examination in Bangladesh. For example, the following claim reflects little (or no) reliability and internal validity which propounds the concern that the deduction made from the analysis might be misleading. “Based on the data we collected, it is evident that students are not just committing suicide because they fail in the JSC but also because they are not getting the maximum GPA (i.e., 5 out of 5). Given that there were 2.61 million JSC examinees in 2019, this is a sizeable “at-risk” group that could experience mental health and stress issues, and in extreme cases, suicide” (Mamun and Griffiths, 2020a p.2).

Mamun and Griffiths (2020b) also expressed their astonishment as to why such methodological question was raised given the fact Arafat as a researcher is broadly reliant on newspaper sources in writing academic papers. This is an interesting claim and factually correct as well. They provided specific shreds of evidence to support this claim. But what Mamun and Griffiths missed out (perhaps, deliberately) is the fact of their over-reliance on newspaper sources in their academic works (see, Mamun and Griffiths 2020b for a reference list as such). Nonetheless, we appreciate the conviction made by Mamun and Griffiths (2020b) that suicide risk factors cannot be accurately understood as the victims are already deceased. The coroners apply psychological autopsy through interviewing concerned individuals to reconstruct the incident of suicide. Journalists use a similar sort of technique (psychological autopsy) while reporting suicidal incidents. On this point, we would like to add that Shneidman (1981), the proponent of psychological autopsy in suicidology, proposed 16 specific parameters as autopsy indicators and suggested to ask open-ended questions to explore the necessary details about the deceased. But what makes us overtly unconvinced is the claim which they made regarding journalists’ aptness in collecting information about the deceased persons. Are journalists designated to be trained to use psychological autopsy? Understandably, this is an area of expertise of psychologists, coroners, or suicidologists. There is a sharp difference between the academic task and the reporting task, and that must be appropriately recognised and valued.

Our point of view is not to discard newspaper sources since these could provide valuable information about suicidal behaviour for a country like Bangladesh where there is no national suicide data repository system. Yet, same as Arafat (2020), we do assert the fact that newspaper contents are often ridden with exaggerations and sensationalism and poorly crafted in response to the World Health Organisation (WHO) reporting guidelines. From the point of that dilemma, we come out with two specific questions. How long should suicide researchers in Bangladesh use such methodology based on the pretext of not having any national suicide surveillance or data repository? How will it take for them to be deeply involved in extricating suicidal context through in-depth

empirical works?

Anyone having an intuitive mind will not disagree that using newspaper sources have a lot of advantages in conducting desk research on a sensitive issue like suicide. Newspaper sources (also reviews) are often not financially cost incurring, does not require cumbersome institutional ethical approval, and does not involve any long-standing personal field engagement. Also, it is easy to go approach to make publications without being involved in rigorous field-based work and data analysis. We are afraid whether newspaper reporting based publications could potentially make any substantial contribution to the advancement of knowledge in Bangladesh. We would like to term this leap as an expedient presentation of the scattered but already known information through an organised means which technically leads us to an ostensibly objective answer/question.

At this backdrop, there must be an urgent call for suicide researchers in Bangladesh to conduct empirical works. Drawing on Max Weberian postulations of “meaningful social actions/subjective meanings”, Jack Douglas (1967), one of the eminent suicidologists/sociologists advocated for extricating the context of suicide by paying attention to the history of individual suicide cases. While doing so, Douglas (1967) proposed to explicate the meanings of the individual cases of suicide by interpreting the statements, patterns of actions, motives, and intentions of the actors involved (Varty 2000). Interviews with key actors/significant others such as “friends and family members who experienced a loss to suicide could offer much-needed data” (Wray, Colen and Pescosolido 2011 p. 522), and could necessarily inform context-based prevention and intervention strategies (Andoh-Arthur, Kinizek, Osafo and Hjelmeland 2018). Considering the need of using of in-depth qualitative research in suicidology, Hjelmeland and Knizek (2010 p.79) categorically stated, “we challenge the editors of suicidology journals to encourage qualitative research, research that will help us to improve our understanding of suicidal behaviour in different contexts.”

Finally, all concerned (editors and researchers) need to think omnisciently on how to contribute in the most befitting manner towards sophisticating suicidal knowledge in Bangladesh. Racing around to publish papers using newspaper sources might increase the number of sources but would no way help in expanding the quality of knowledge. We leave this issue for further academic debate and consider your journal as a venue to nurture this debate in order to help and direct scholars in Bangladesh to get rid of content analysis and adopt empirical works (what we suggest) more vigorously. Knowledge that is produced from the real-life context has significant implications in providing appropriate policy directions as well.

## REFERENCE

- Andoh-Arthur, J., Knizek, B., Osafo, J. and Hjelmeland, H., (2018), 'Suicide among Men in Ghana: The Burden of Masculinity, *Death Studies*, vol. 42, no. 10, pp.658-666.<https://doi.org/10.1080/07481187.2018.1426655>
- Arafat, S., (2020), 'A Response to "Young Teenage Suicides in Bangladesh—Are Mandatory Junior School Certificate Exams to Blame?" *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00295-z>
- Douglas, J. (1967), *The Social Meanings of Suicide*. Princeton, N. J: Princeton University Press,
- Mamun, M. A. and Griffiths, M. D. (2020a), 'Young Teenage Suicides in Bangladesh —Are Mandatory Junior School Certificate Exams to Blame?' *International Journal of Mental Health and Addiction*.<https://doi.org/10.1007/s11469-020-00275-3>
- Mamun, M. A. and Griffiths, M. D. (2020b), 'Young Teenage Suicides in Bangladesh —Are Mandatory Junior School Certificate Exams to Blame? A Response to Arafat,' *International Journal of Mental Health and Addiction*.<https://doi.org/10.1007/s11469-020-00324-x>
- Hjelmeland, H. and Knizek, B. L. (2010), 'Why We Need Qualitative Research in Suicidology,' *Suicide and Life-Threatening Behaviour*, vol.40, no. 1, pp. 74–80.<https://doi.org/10.1521/suli.2010.40.1.74>
- Varty, J. (2000). 'Suicide, Statistics and Sociology: Assessing Douglas critique of Durkheim', In:W.S.F. Pickering and Geoffrey W. (Eds.), *Durkheim's Suicide: A Century of Research and Debate*, London: Routledge, pp 53-65.
- Wray, M., Colen, C. and Pescosolido, B. (2011), 'The Sociology of Suicide,' *Annual Review of Sociology*, vol 37, no 1, pp. 505–528. <https://doi.org/10.1146/annurev-soc-081309-150058>.

## **Effectiveness of Village-Based Organization (VBO) in improving the livelihood of the rural community in Bangladesh**

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### **ABSTRACT**

*The study's overreaching objective was to evaluate the pros and cons of the newly adopted Village-Based Organization that was funded by the United Nations' Food and Agriculture Organization (FAO). Empirical data was collected following personal interviews and focus group discussions. The study revealed that VBO contributed to diversifying enterprises by promoting high-value crops, small-scale livestock, and other value-added activities. The respondents expressed their complimentary views about their uplifted living standards. The women's active participation and consequent empowerment increased by restoring their rights on resources and decision making. Farmers Field School motivated the community to introduce new technologies and practices for maintaining their livelihoods better. Despite some limitations, the VBO helped reduce local disputes and criminal activities like dowry, the high-interest rate of credit, child marriage, and drug abuse. The study advocates replicating this concept in the whole country as a part of the corona pandemic stimulus package. It can curb Monga (seasonal famine), tackle incremental anthropogenic-climatic stressors, reduces the consumption of natural resources, achieves Sustainable Development Goals, and finally, uphold the aspiration of a "whole society approach" and "no one is left behind." Policy interventions are warranted to rectify the identified challenges and integrate the basic principles of sustainability, termed a holistic approach.*

**Keywords:** Participatory Governance; Women Empowerment; Corona Stimulus; Monga; Responsible Consumption

## 1. INTRODUCTION

The rural economy, notably agriculture, is the most powerful driver of poverty alleviation in Bangladesh since 2000, which accounted for 90% of the poverty reduction during 2005-2010 (FAO 2016). Near about 70% of the population, together with 77% of the total workforce, lives in rural areas. Almost half of workers and two-thirds of the people residing in rural areas solely depend on agriculture. On the flip side, about 87% of rural households figure on agriculture directly or indirectly for livelihoods (FAO 2016). The agricultural sector contributes to 14.23% of the Gross Domestic of the country (BBS 2019). The country has made tremendous progress over recent decades in achieving food security. The Agriculture Orientation Index (+0.5) is decent compared to that of other neighbors like Nepal, Sri-Lanka, and India (FPMU 2019). Despite that, food production cannot maintain its consistency because of natural calamities, farmer's insolvency, distorted market chain, land fragmentation, lack of innovative technologies, weak transportation system, and lack of storage facilities and agricultural inputs (Rahman 2020a). Faster inclusive rural growth and new job creation, notably more robust rural non-farm enterprise development and agricultural diversification, have become indispensable. A shift in mono rice culture to higher-value crop production can reduce malnutrition, boost growth, and create an array of non-farm jobs for women and youth. Similarly, livestock and fisheries can offer enormous potential for achieving food security and decent employment generation.

Thus, the development of village-based organizations in rural areas is vitally important for developing agriculture and improving farming communities' livelihoods. In achieving success in farming development, the farmers' unity and cooperative framework in materializing is pivotal. The population of the country has been increasing, and in contrast, the land resource is decreasing. The adverse effect of climate change has become a threat to agricultural development, which calls for much awareness and collective action by the community members. Realizing the importance of rural farmers' unity in achieving agricultural sustainability, Bangladesh initiated a Village Based Organization (VBO) in the *Mymensingh* and *Sherpur* district in 2011 with the financial and technical support of the Food and Agriculture Organization of the United Nations (FAO). The initiative's overall goal was to ensure food security by enhancing agricultural production, diversifying income sources, adding value, and improving the market chain.

The village-based organization helps in the socialization and development of new professionals (Lunceford 2014). Ren *et al.* (2017) found that the cooperative system is a bottom-up institutional innovation towards sustainable land use in China. On the other hand, such organizations establish "village democracy" and

strengthen tenure rights (Ren *et al.*, 2018). Educational events more effective among people with lower levels of education, and interventions are more beneficial in communities with insufficient social capital (Sato *et al.* 2020). The association of social capital and cohesion positively impacts physical and emotional health (Habib *et al.* 2020). VBOs interact between a group's resources and the interconnections that every individual has to this group, which allow the member to benefit from these resources (Caprino 2007).

VBO works as a tool for alternative dispute resolution minimizing the local conflicts in Indonesia (Teniwut *et al.*, 2017). It was revealed that VBO helped the farmers heightening their inspiration towards development activities but could not bring any remarkable change in Pakistan (Muhammad *et al.* 2009). VBO brought some negative changes to Western Sub-Saharan Africa (Navarra and Vallino 2015). Barnes and Van Laerhoven (2013) revealed that the external agent, notably the donor's involvement in VBO, affected the local community's livelihoods in Maharashtra, India. Lamsal *et al.* (2015) reported that this approach built up a positive mindset among Nepal's communities. Therefore, a mixed outcome is reported from different parts of the world. The effectiveness of the newly introduced VBO in Bangladesh was rarely assessed. Hence, the study aimed to understand the current Status of Village Based Organization and evaluate their effectiveness.

The grass root people of Bangladesh have a long history of working under a cooperative society (Chowdhury 1989). In Bangladesh, the concept of participatory governance in managing natural resources is popularly known as co-management that emerged after 1995 to empower the local community to manage fisheries and forest resources in the critically degraded habitats (Fox and Mustafa 2013; Thompson 2013). But this approach was limited to the community residing at the proximity of the natural habitats or in the ecologically critical areas. VPO was the first step in expanding participatory governance at the farmers' level. The co-management outcome in wetlands and forests was mixed and did not curb the ongoing degradation (Fox and Mustafa 2013; Islam *et al.* 2016; Rahman 2018). FAO (2014) embraced the VBO as a successful project. Hence, a cross-check is warranted to understand whether VBO followed the consequence of the natural habitat's co-management or not. The study will help policymakers understand the pitfalls and bottlenecks and implement policy interventions for its continuity and sustainability.

### **1.1. Conceptual framework**

Long years back, the community-based organization was an important facet of Indian service in society. Community Development had a long history in India, even before launching the Community Development Programme (CDP) in 1952 (Gangrade 1971; Waghmare and Patel 1974). Before the independence of India,

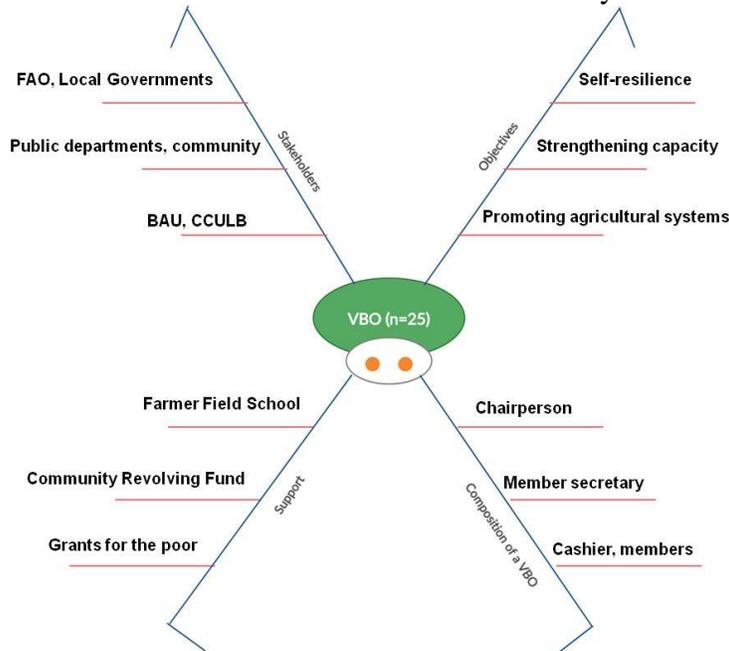
such cooperative societies contributed to voluntary movements and social and economic development. It underscored the formation of some historical organizations and activities in the Indian subcontinent like *Arya Samaj* (1875), *Rama Krishna Mission* (1897), Theosophical Movement (1893), and *Sarvodaya Movement* (1920).

Bangladesh Academy for Rural Development (BARD) incepted a Community-based rural development initiative, widely known as the "*Comilla approach*." It formed rural society at the outset and then integrated some basic development programs (Chowdhury 1989). It followed two-tier agricultural cooperative systems: *Krishak Samabay Samiti* (Village level cooperative society) and a Thana Central Cooperative Association. These cooperative associations were voluntary economic organizations of farmers (Quddus 1993). In Bangladesh, predominantly, financial limitation is a significant issue for rural development. The industrial revolution of the early twentieth century, accompanied by rapid urbanization, expanded the gap between the urban and rural parts of Bangladesh to an alarming level (Freeman 2009; Webster and Engberg-Pedersen 2002).

Farmers' organizations in Bangladesh can be the right partners rather than "beneficiaries" for the development process. Considering this fact and understanding the needs of the communities and substantial social capital, Bangladesh launched a development project (GTFS/BGD/041/ITA) entitled "Food Security through Enhanced Agricultural Production, Diversified Sources of Income, Value Addition and Marketing in Bangladesh (*Mymensingh/Sherpur*)." The project strived to develop self-reliance on the rural communities; strengthen capacity; promote agricultural diversification; motivate small-scale agro entrepreneurship, and enhance scientific knowledge (Mandal and Robson 2016-2017). The project also outlined some components like group formation, management, sustainability, livelihood diversification, and market and financial access. "Italian Contribution to FAO Trust Fund for Food Security and Food Safety" provided financial support to run this project. The stakeholders included the Department of Agricultural Extension, Department of Agricultural Marketing, Bangladesh Agricultural Research Council, *Zilla Parishad* (District Council), *Upazila Parishad* (Sub-district Council), Bangladesh Agricultural University (BAU), Cooperative Credit Union League of Bangladesh (CCULB), and FAO. A total number of 48 communities comprising 25 members in each were formed in four *Upazilas* of *Mymensingh* and *Sherpur* district: *Haluaghat*, *Dhobaura*, *Nalitabari*, and *Jhenaigati*. The group members were taken from all farmers' categories, emphasizing landless, marginal, small, and poor. The VBOs are registered under the department of cooperative Government of Bangladesh. Technical and financial support component was provided to the selected communities for developing agro-based entrepreneurship. The *Upazila* Cooperative department registered VBOs under certain conditions. Each VGO

maintained a bank account to deposit money and for financial transactions.

The project is expected to increase the beneficiary's household income by 25%, diverse income sources, expand trade linkages between the community and the outside markets, and improve financial access on a sustainable basis. The community members established the Community Revolving Fund (CRF) for Alternative Income Generating Activities and suitable rural enterprises. Farmer Field Schools (FFS) were established to heighten the farmers' technical knowledge (Figure 1). After ending the project period, the Department of Agricultural Extension (DAE) continues these activities. Formation of Village Based Organizations (VBOs) and utilization of the communities' dynamics, facilitating self-sustaining financial activities, establishing the agro market at crucial points, and linking development organizations to the VBOs were significant interventions. Now it is a matter to analyze how these interventions were materialized and assess achievements and sustainability.



**Figure 1:** Spider diagram showing the conceptual framework of a VBO

## 2. MATERIALS AND METHODS

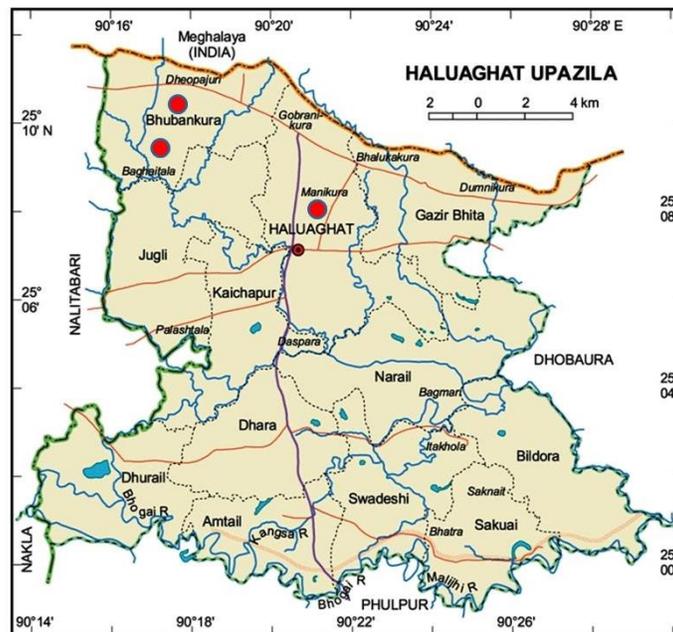
Out of 4 Upazillas, Haluaghat, Mymensingh was selected for empirical data collection (Figure 2). Out of 48 VBOs, Haluaghat Upazila was assigned to managing 12 organizations. In this study, 03 organizations were examined to collect qualitative and quantitative data (Table 1). The focus group discussions (FGDs) and personal interviews with a semi-structured questionnaire were used to

collect empirical data. A total of 03 FGDs were conducted on three VBOs incorporating five respondents in each. Beforehand, a checklist was prepared to keep the discussions on track. In each FGD, the documented papers and the impression, emotion, and plan of the VBO were noted. The personal interview is considered the most accepted and appreciated data collection approach in qualitative research (Gill et al., 2008). The interviewee is comfortable with semi-structured interviews compared to the structured or closed-ended interview (Stuckey, 2013). Workshops, a research approach, cater a platform for a researcher in spotting, articulating, and scrutinizing poorly-defined or fuzzy challenges in the research domain (Ørngreen and Levinsen, 2017).

**Table 1:** The particulars of VBOs used for FGDs

<i>SL</i>	<i>VBO's name</i>
1	North Monikura Samabai Samiti VBO Ltd.
2	Shondhakura VBO Samabai Samiti Ltd.
3	Kumargati VBO Somobai Samiti Ltd.

A total of 30 respondents from the three VBOs, as mentioned earlier, were personally interviewed, maintaining an equal number (n=10) from each group. The questions highlighted the components of the project's objectives. The respondents were selected based on a mixture of random and purposive sampling. The executive teams were chosen purposively, where other respondents randomly.



**Figure 2:** Red circles showing study area (Banglapedia, 2020)

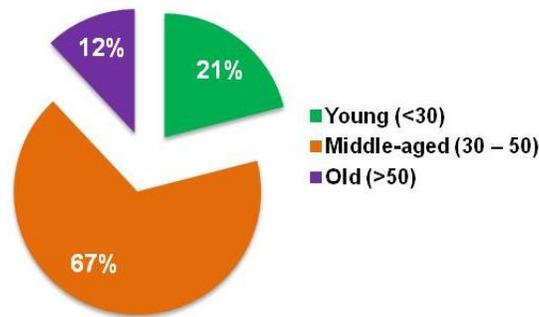
The content analysis was done considering its uniqueness (Dooley, 2016) in that it supports both qualitative (Berg 2009) and quantitative analysis (Krippendorf 2004; Neuendorf 2002). The content analysis helps a researcher to analyze the themes, concepts, and interrelationships. The collected data was coded into various categories and variables. De-contextualization, re-contextualization, categorization, and compilation were followed in this analysis (Bengtsson 2016).

### 3. RESULTS AND DISCUSSIONS

#### 3.1. Demographic profiles

##### 3.1.1 Age class

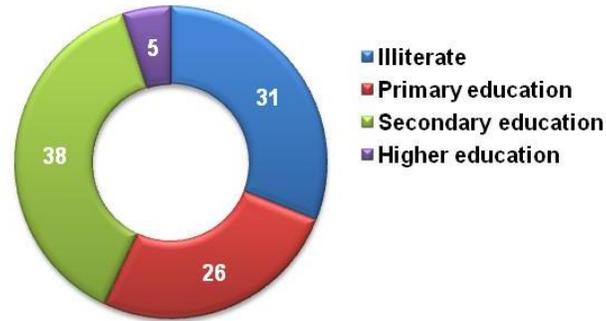
The study shows that the middle-aged class dominates the VBOs, followed by the young type (Figure 3). It can be argued that VBOs discouraged the older persons from taking the lead role and contrastingly motivated new leadership from the capable classes on the assumption that middle-aged people can take quick and courageous decisions in developing new enterprises. Therefore, it can be assumed that the appropriate group of the population received CRF loan for maximizing the benefits for improving their livelihoods.



**Figure 3:** Distribution of interviewees based on age classes (%)

##### 3.1.2 Literacy

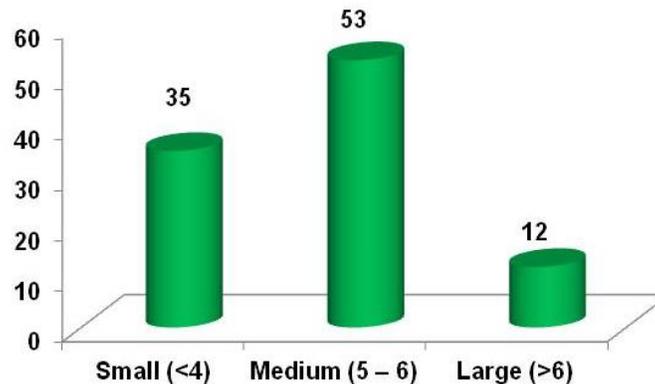
The respondents' education score was measured in terms of the actual grade of formal education or its equivalence. Thus, a score of one was given based on the formal education attended by a respondent. The adult illiteracy rate is higher than the national average, which reckons 25.3% (World Data Atlas 2020). It is understood that, apart from the literates, many illiterate persons were engaged in income generation activities with the support of educated persons. Moreover, the proportion of beneficiaries (38%) having secondary level education indicates a balanced mixture for community development.



**Figure 4:** Distribution of interviewees based on education status

### 3.1.3 Household size

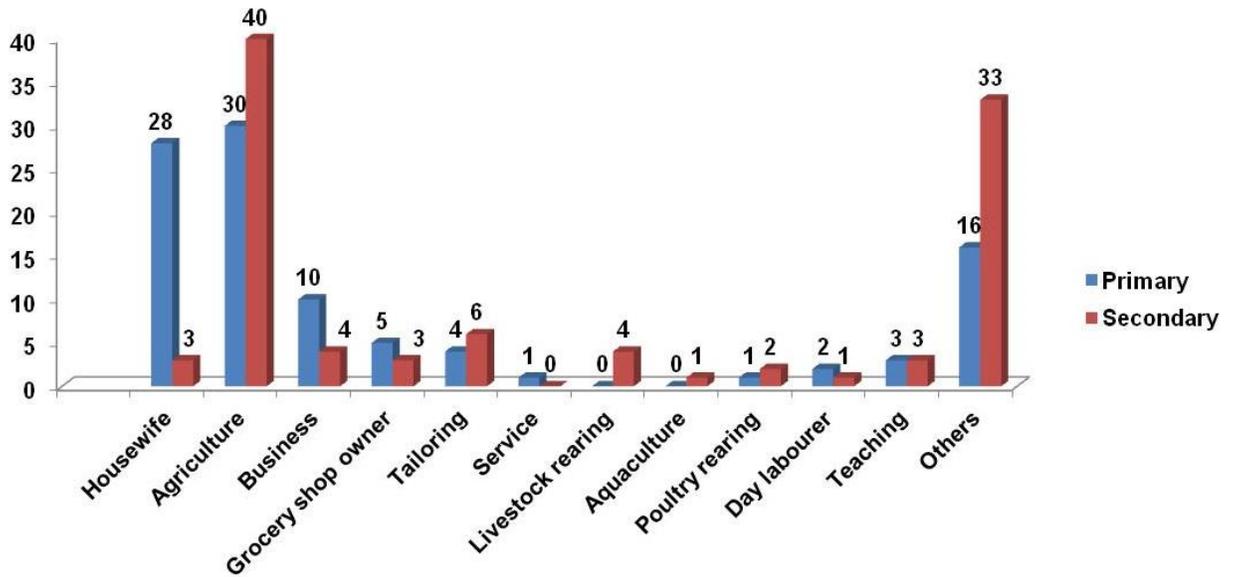
The household size of the respondents ranged from 2 to 11, with a mean of 5.05. The household distribution among the respondents seems a true reflection of the Bangladesh scenario (Figure 5). Nationally the average household size in 2020 is 4.5 (ArcGIS, 2020).



**Figure 5:** Distribution of interviewees based on household size (%)

### 3.1.4 Occupational status

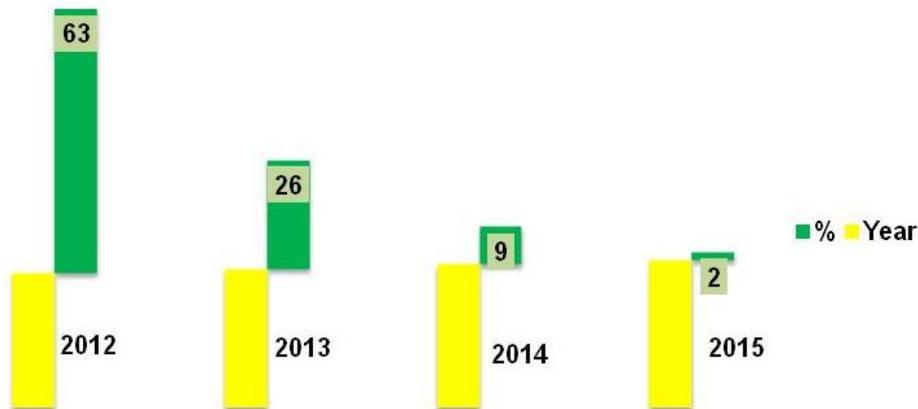
The VBO members were asked to indicate their both primary and secondary occupations. The majority of the respondents had an agriculture-based domain (Figure 6). A significant portion of female members of VBOs (28 %) was housewife primarily. Business, tailoring, livestock, and poultry rearing, grocery are also the other remarkable occupations. Many VBO members utilized credit in these enterprises and earned money from diversified sources using CRF credit under the project.



**Figure 6:** Distribution of interviewees based on occupational status (%)

**3.1.5 Year of joining**

The data show that majority of the respondents joined the VBO in 2012 (Figure 7). An overwhelming majority (89%) of the members joined the VBOs during the early years of establishing the organization, which indicates that the stakeholders were proactive, and the community was attracted at the outset. Consequently, the lion sharers (63%) enjoyed the full-pledged benefits since the inception.

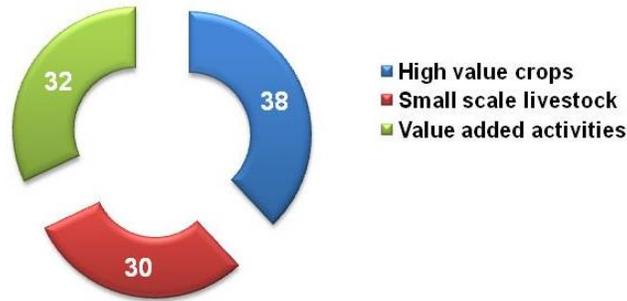


**Figure 7:** Distribution of the interviewees based on year of joining

**3.2 Diversity in livelihood enterprises**

One of the project's objectives was to diversify enterprises in the project area by promoting high-value crops, small-scale livestock, and other value-added

activities. The results show that a significant portion (38%) of the community was involved in a value-adding activity that is a positive sign of shifting the traditional crop production based livelihood. High-value crop production accompanied by small scale livestock also indicates a change in the livelihoods of the project area (Figure 8).



**Figure 8:** Distribution of interviewees based on diversified enterprises

### 3.3 Women empowerment

The women's empowerment status of the VBO members was understood using a scale having 15 components related to decision making and rights on the property. The female respondents were asked whether their status was heightened or downplayed (Table 2). The results show that women's active participation and consequent empowerment increased on many issues. Significant changes were observed in regulating income from enterprises (75%), access to family income and assets (71%), the decision on spending for child education (66%), overall social recognition (66%), and decisions on health and family-related expenses (64%). All of these are vital components in women's empowerment. Interestingly, none of the respondents mentioned that women's status was curbed compared to pre-VBO's level. The male members (53%) were slightly higher than that of females (47%). Therefore, VBO's sensitized the women's equal participation in management activities, imparting entrepreneurship training, market linkage activities, and utilizing credit for enterprise development and diversification.

**Table 2:** Status of women empowerment

<i>Components</i>	<i>Improved (%)</i>	<i>Status-quo (%)</i>
Access to and control over land (own or inheritance)	44	56
Access to family income and assets	71	29
Regulating income from enterprises and their source	75	25
The decision on the family planning issue	37	63
The decision on health, treatment, and nutrition issues	64	36

The decision on spending on child education	66	34
The decision on expenses on festivals and family events	64	36
The decision on buying household assets	53	47
The decision on land mortgage/sharecropping/selling	42	58
Social mobility or freedom of movement	60	40
Overall social recognition/ position	66	34
Participation in social programs and events	59	41
Access to financial institutions (NGO loans and banks)	31	69
Control over loan management	55	45
Access to other services (agricultural extension, health service, etc.)	39	61

### 3.4 Change in livelihood

The VBO members were also asked to indicate their livelihoods change due to CRF loan utilization in enterprises (Table 3). VBO members' livelihoods improved, considering past status. The respondents expressed their complimentary views in uplifting their living standards. A remarkable change was observed in income from enterprises (96%), expenditure on family food items (92%), monthly income (89%), farm production (87%), and spending on different household items.

**Table 3:** Change in livelihood status

<i>Livelihood aspects</i>	<i>Improved (%)</i>	<i>Status quo (%)</i>
Income from enterprise	96	4
Total monthly income	89	11
Farm production	87	13
Land possession (own)	41	59
Household assets	68	32
Education care and cost	82	18
Expenditure on clothing	83	17
Medical treatment cost	73	27
Expenditure on family food	92	8
Expenditure in festivals	75	25
Spending on social and family programs	68	32
Expenditure on donation, charity, gifts, and helping	63	37

### 3.5 Effectiveness of farmers field school (FFS)

The effectiveness of FFS was measured by understanding the indicators of the usefulness of the contents during FGD. These were done seeking an opinion about various topics of FFS (Table 4). The findings show that the contents were useful

and need-based to the community. Together with these findings, VBO members mentioned some issues to be upscaled the effectiveness of FFS. They opined that current technological issues accompanied by field demonstrations could be more effective. Conducting regular training sessions, especially before a specific crop season, can be more helpful for them. The training duration was not enough, and there were not sufficient training materials. They emphasized no-farming topics to increase their skills in initiating alternative income-generating activities.

**Table 4:** FGD Respondents' perception of the contents of FFS

<i>SL</i>	<i>Components</i>	<i>Content was useful (n=3)</i>		<i>Content was need-based (n=3)</i>	
		Yes	No	Yes	No
1.	Bitter gourd cultivation	3	0	2	1
2.	Cucumber cultivation	3	0	3	0
3.	Ash gourd cultivation	3	0	2	1
4.	Bottle gourd cultivation	3	0	3	0
5.	Pumpkin cultivation	3	0	3	0
6.	Wheat cultivation	2	1	3	0
7.	Mustard cultivation	2	1	3	0
8.	Homestead gardening	3	0	3	0
9.	Uses of pheromone trap	2	1	2	1
10.	Use of raised bed	2	1	2	1
11.	Perching in the rice field	2	1	2	1
12.	Line sowing of rice	3	1	3	1
13.	Practicing IPM	2	1	3	0
14.	Beef fattening	3	0	3	0
15.	Small scale poultry rearing	3	0	3	0
16.	Aquaculture	2	1	2	1
17.	Mango orchard	3	0	3	0

### **3.5.1 Technology diffusion through FFS**

VBOs' members received FFS training on various aspects of farming and alternative income generation that motivated them to introduce new technologies and practices for maintaining their livelihoods better. The new agricultural topics included the cultivation of vegetables like bitter gourd, ash gourd, cucumber, bottle gourd, onion, pumpkin, etc. They started the cultivation of wheat and mustard after imparting training. They learned the uses of pheromone trap, raised

bed, perching in the rice field, line sowing, Integrated Pest Management, composting, and others from practical sessions. Beef fattening and small scale poultry rearing were the primary livestock centric issues, which motivated few members. A minuscule also kicked off aquaculture and establishing fruit orchards on their land as new enterprises.

### 3.5.2 Sustainability FFS

During the discussion, the participating VBO members responded that the FFS courses were moderately sustainable (Table 5). But the VBO members mentioned that they needed continuous support for the FFS and the techniques they imparted in the past. Proper monitoring of the school, modification of the courses based on participants' feedback, and tracking the lessons' application can be immensely needed for the school's sustainability.

**Table 5:** Response to indicators towards sustainability of FFS

<i>Indicators</i>	<i>Group response</i> (n=3)	
	<b>Yes</b>	<b>No</b>
The participating farmers are continuing all learned practices	2	1
Farmers will/like to continue the way in future	2	1
The training was useful for the farmers in terms of knowledge and skill gain	3	0
The learned practice was profitable for the participants	3	0
Other farmers of the village also adopted the practice	3	1

### 3.6 Perception of VBOs

In the personal interview and FGD, the individuals and the team were requested to opine their scores about the success of VBOs. The sensation was rated as very unsuccessful, unsuccessful, partially successful, successful, and very successful. The findings show that VBO was successful in the members and teams' eyes (Table 6). The enthusiastic participation of every member was the primary determinant of success. The VBO members, including the management committee (MC) members, were active. Timely repayment of the loan by the borrowers and sincere utilization of the loan money helped increase their monthly income. The most important thing is that most borrowers earned more money from both on-farm and off-farm enterprises. Better functional linkage with development organizations was established, which will help in the coming days to improve their socio-economic conditions. The project's financial grant acted as a catalyst, and VBOs minimized the harassment in getting a loan from the bank or Non-Government Organizations (NGOs). Receipt of vulnerable grants villagers

helped ultra-poor in poverty reduction. Incremental saving and investment tendency among villagers resulted in the emergence of new enterprises in the villages. The women contributed to the household income compared to the previous status. The local disputes and criminal activities like dowry, the high-interest rate of credit, child marriage, and drug abuse were reduced significantly. The traditional village-based groups helped them to accrue a legacy in controlling some social odds and injustice. On the other hand, the support of multi-stakeholders inspired them to establish their rights. The influential external factors included adequate and timely support from the project, financial aid, encouragement, and local people's recognition.

**Table 6:** Perception of successfulness of VBOs

<i>Name of VBO</i>	<i>Perception</i>	
	<i>Interviewee</i>	<i>FGD</i>
North <i>Monikura</i> VBO Ltd.	Successful	Very successful
<i>Shondhakura</i> VBO Ltd.	Successful	Successful
<i>Kumargati</i> VBO <i>Somobai Samiti</i> Ltd.	Successful	Successful

### 3.7 Overreaching challenges and cross-cutting issues

Various challenges were identified through the discussions, which might influence the VBO to meet the project objectives. The executive committee members' honesty and transparency are not adequately monitored as they are influential in society. Few members did not show solidarity and unity; instead, they were driven by their interests. The executive committees included few inactive members who were sometimes absent in the meetings and politically influential. In many cases, nepotism, biasness, and local influences were the criteria in loan disbursements; consequently, the real needy did not receive a loan on some occasions. A segment of VBOs did not utilize the grants and loans following the terms and conditions and did not deposit the share of benefits. There was a lack of internal coordination among VBO members to some extent. To date, no formal linkages have been established between VBOs and the buyer groups to sell their farm products. Nonetheless, some informal agreements/contact remained between the VBOs and the buyers at *Upazila* and district levels. The VBOs could not help them in clearing intermediary groups from the market chain.

## 4. DISCUSSIONS

Livelihood diversification, market access, and financial access to the relevant organization are critical concerns for achieving rural development's sustainability in Bangladesh. This FAO funded project was implemented to achieve integrated development in the selected areas. The study aimed to reveal the merits of the project and sustainability issues after project support withdrawal. The project

achieved its objectives by empowering women, conducting training, and providing an easily accessed loan. But many shortcomings affected the achievement of the aim. Now it's the sole responsibility of DAE to continue the VOBs, especially in the project areas, so that the community can uphold the unity's aspiration. The internal qualities and functions of the VOBs should be maintained to attract other donors and other stakeholders. A monitoring team may be formed under the control of DAE so that the momentum and potential of the VOBs can be sustained. Finally, it can be said that most of the VOBs have been working well, and still, the enthusiasm has been working. The less progressing VOBs need to be reinforced through further initiatives of DAE and concerned NGOs. DAE may move forward with this project's social and community infrastructure to promote the farmer's spirit to make them self-dependent.

As this project was accepted by the rural community in improving their livelihood, it should be replicated in the whole country to empower the rural people, especially women, despite some limitations. Women with Disabilities in Bangladesh face enormous challenges to avail of fundamental rights and essential services, notably employment and banking services from the public institutions and NGOs (Akter and Rahman 2018). Special attention is necessary to address disabled women in rural areas deprived of various services and rights.

Operations of the FFS and CFS were found to be effective that helped enormously in introducing old practices scientifically and commercially. The efforts also helped raise off-farm enterprises as they achieved adequate skill and motivation towards implementing the enterprises. Consequently, the dependency on the use of natural resources was reduced by increasing alternative income-generating activities. Coastal Bangladesh, notably the *Sundarbans* mangrove, is combating against incremental anthropogenic-climatic stressors simultaneously for its survival (Rahman 2020b). On the other hand, the ecologically critical areas are perilous due to the intensified extraction of resources. The adoption of VOBs in those areas will curb the over-extraction of natural resources, including biodiversity, which will help restore the degraded ecosystems.

The *Monga* (seasonal famine) prone to North Bengal suffers from cyclical poverty and hunger due to jobs and foods (Sarker 2016). In this context, the solutions of vulnerability and seasonal food insecurity (availability, access, and utilization) are embedded with VBO, which will immensely improve the socio-economic status and participatory governance by sharing the burdens.

The COVID-19 pandemic gives Bangladesh an uncertain future and simultaneously provides an ample opportunity to develop a sustainable agricultural system. The uncertain COVID 19 may spike the hunger of the poor and vulnerable communities. Hence, the agriculture sector draws the foremost priority for ensuring food security. Bangladesh should also prepare to build a comprehensive recovery plan for dealing with food insecurity. VBO can link

farmers with the producing-processing-marketing-selling system to heighten food security. As a part of the corona stimulus package VBO can be expanded gradually in the vulnerable areas based on the poverty map.

Taking inspiration from MDGs implementation, the country has been trying to be one of the front runners in achieving SDGs from the very beginning (Rahman 2020a). The government has also taken a "whole society approach," and the aspiration of "no one is left behind," which are deeply rooted in the objectives of VBO. Goal 16 recapitulates the need for inclusive societies and participatory governance. Target 1.3 reiterates taking appropriate social protection measures, including floors, for the poor and the vulnerable. Similarly, target 1.4 spotlights on establishing the poor and the vulnerable people's rights to economic resources, essential services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance. Altogether, VBO's objectives closely align with most SDGs, notably poverty reduction, food security, informal education, women empowerment, decent work, resilient society, responsible consumption, climate mitigation, biodiversity conservation, inclusive governance, and partnership development. The introduction of VBO across the country will help the government in achieving SDGs within the stipulated timeframe.

Policy initiatives are warranted to address the identified challenges to make them perfectly functional. The agricultural market in Bangladesh is distorted, fragile, and controlled by the intermediaries (Rahman and Neena 2018), which causes a prolonged deprivation of their rights on the market and financial resources (Alam *et al.* 2020). DAE should work closely with Bangladesh Trading Corporation to clear the intermediaries from the market chain to establish farmers' inbuilt rights on the market. The target 2.b of SDGs calls for correct distorted agricultural markets by removing all obstacles in their ways. It is expected that VBO management ensures the local producers to receive a fair price for their products by linking rural people in the value chain system. Emphasis should be given to imparting more training as it increases knowledge, skill, and awareness (Rahman *et al.* 2020a). Even knowledge about resistant varieties and row spacing can help in increasing crop productivity (

The participatory governance introduced by the Forest Department and Department of Fisheries to protect the ecosystems of the ecologically critical areas could not garner sufficient supports from the community due to communities' passive participation, hegemonic behavior of the public departments, nepotism, and local political interferences (Fox and Mustafa 2013; Islam *et al.* 2016; Rahman 2018; Rahman and Alam 2020; Rahman *et al.* 2020b). By taking this lesson, it is expected that DAE is fair in selecting the need-based members, emphasizing the group's left. Accordingly, the grants and loans should be disbursed, overcoming all local influences. Continuous monitoring and

gathering feed by DAE can make equal justice for all. VBOs should be given authority to increase the limit of the loan ceiling if it is required. Government and non-government organizations should use VBOs as platforms for launching all development activities at the grass-root levels. Own office of the VBOs is to be built for smooth functioning. The accountability and transparency of all the deals of the VBOs are to be ensured. More allocation of loans and the creation of savings can enhance social sustainability. Differently, the illiteracy rate is frustrating, which draws the attention of incorporating non-formal education or evening schooling for the illiterate members.

In Bangladesh, tourism has not been flourished compared to other similar countries (Rahman and Zaman I 2020). The VBOs can be an initiation of community-based tourism. Both SDG 8 and 12 stress community-based ecotourism and branding local culture and products. Similarly, it can establish the community's rights on their natural resources and create a decent job. VBOs can cement cohesion among society and bring a positive outcome in establishing "family democracy" and "village democracy," which eventually reduces social unrest and disputes.

## 5. CONCLUSIONS

The VBO has changed the traditional rural life and livelihoods at a faster pace. Some challenges could not limit the community to be empowered financially and socially, which are the central pillars of sustainable development. The incremental non-farm activities and increased alternative income generation indicate the reduced use of natural resources, which is the prime condition of conservation and environmental sustainability. Bangladesh can adopt this concept nationally and implement it phase by phase, prioritizing the left-behind communities as a corona stimulus package for the rural community. Participatory governance can safeguard the rights of the left-behind group. The challenges should be transformed into opportunities as VBO is broadly resonated with almost SDGs. The findings will help the policymakers in adjusting the current policies. DAE's proactive role in monitoring can overcome the challenges identified in this study. Therefore, the integration of VBO into policy interventions is necessitated to alleviate poverty, ensure food security, accelerate floor protection, generate alternative employment, and reduce the over-extraction of natural resources. Henceforth, the study argues for adopting a holistic approach to incorporate socio-economical and environmental sustainability principles.

## References

Akter, A. & Rahman, MM. (2018). Women with Disabilities in Bangladesh: Accessibility in the Built Environment. *PROSHIKHYAN, A Journal of Training*

*and Development*, 26(2): 1–12, <http://doi.org/10.5281/zenodo.4391766>.

Alam, S., Rahman, M.M. and Arif, A.A. (2020) Challenges and opportunities in artisanal fisheries (Sonadia Island, Bangladesh): The role of legislative, policy and institutional frameworks. *Ocean & Coastal Management*, <https://doi.org/10.1016/j.ocecoaman.2020.105424>.

ArcGIS (2020) Bangladesh Average Household Size. <https://www.arcgis.com/home/item.html?id=692cee7e5a5e47dd86531ab0c6a00cf>. Accessed on 28 October 2020.

Banglapedia (2020). Map of *Haluaghat Upazila*. National Encyclopedia of Bangladesh. <https://www.banglapedia.org/>.

Barnes, C. & van Laerhoven, F. (2014). Making it last? Analysing the role of NGO interventions in the development of institutions for durable collective action in Indian community forestry. *Environmental Science & Policy* 53: 192-205. <https://doi.org/10.1016/j.envsci.2014.06.008>.

BBS (2019) Statistical Year Book Bangladesh 2019. Bangladesh Bureau of Statistics. <https://bbs.portal.gov.bd/>.

Begum F. and Rahman M.M. (2005), Effect of seed rate and row spacing on the yield and yield components of mustard. MS Thesis, Department of Agronomy, Bangladesh Agricultural University, <http://doi.org/10.13140/RG.2.2.27423.00161>.

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *Nursing Plus Open* 2: 8-14.

Berg, B.L. (2009). *Qualitative research methods for the social sciences*. Allyn & Bacon, Boston.

Carpiano, RM (2007) Neighborhood social capital and adult health: An empirical test of a Bourdieu-based model, *Health & Place*, Volume 13, Issue 3, <https://doi.org/10.1016/j.healthplace.2006.09.001>.

Chowdhury, A. N. (1989). *Let grassroots speak*. Dhaka: University Press Limited

Dooley, K.J. (2016). Using manifest content analysis in purchasing and supply management research. *J. Purch. Supply Manage* 22 (4): 244-246. <https://doi.org/10.1016/j.pursup.2016.08.004>.

FAO (2014) Farmers' Organizations in Bangladesh: A Mapping and Capacity Assessment. Bangladesh Integrated Agricultural Productivity Project, Technical Assistance Component. Food and Agriculture Organization of the United Nations, Rome.

FAO (2016) Bangladesh: Growing the Economy through Advances in Agriculture, FAO.

Fox, J. & Mustafa, M.G. (2013). Introduction: Co-management initiatives implemented by IPAC in wetlands and forests of Bangladesh. In *Connecting communities and conservation: Co-management initiatives implemented by IPAC in Wetlands and Forests of Bangladesh*, eds. Fox, J., Mustafa, M.G., Bryan, R.B. et al. pp.1-9, USAID, Bangladesh.

FPMU (2019) Monitoring Report, Food Planning and Monitoring Unit, the Bangladesh Second Country Investment Plan.

Freeman, A. (2009). The poverty of statistics and the statistics of poverty. *Third World Quarterly* 30( 8): 1427–1448.

Gangrade, K.D. (1971). *Community organization in India*. G.R.Bhalkal for Popular Prakashan, 35 C Tardeo Road, Bombay 34WB.

Gill, P., Stewart, K., Treasure, E., and Chadwick, B. (2008), “Methods of data collection in qualitative research: interviews and focus groups”. *British dental journal*, Vol. 204 No. 6, pp. 291-295. <https://doi.org/10.1038/bdj.2008.192>.

Habib RR, El-Harakeh A, Ziadee M, Abi Younes E, El Asmar K (2020) Social capital, social cohesion, and health of Syrian refugee working children living in informal tented settlements in Lebanon: A cross-sectional study. *PLoS Med* 17(9): e1003283. <https://doi.org/10.1371/journal.pmed.1003283>.

Islam, M. Mohammed, E.Y. & Ali, L. (2016). Economic incentives for sustainable hilsa fishing: An analysis of the legal and institutional framework. *Marine Policy* 68: 8-22. <https://doi.org/10.1016/j.marpol.2016.02.005>.

Krippendorff, K. (2004). *Content Analysis: An Introduction to its Methodology*. Sage Publications: Beverly Hills, CA.

Lamsal, P., Pant, K.P., Kumar, L. & Atreya, K. (2015). Sustainable livelihoods through conservation of wetland resources: a case of economic

benefits from Ghodaghodi Lake, western Nepal. *Ecology and Society* 20(1): 10. <http://dx.doi.org/10.5751/ES-07172-200110>.

Lunceford, C. J. (2014). It takes a village: The role of the individual, organization, and profession in preparing new professionals. *New Directions for Community Colleges*, 166, 13-20, <https://doi.org/10.1002/cc.20097>.

Mandal, M.A.S. & Robson, M. (2016-2017) Untapped potential for agricultural development: technology interventions in less favoured agro-ecologies of Bangladesh. *Bangladesh J. Agric. Econ* XXXVIII (1&2): 1-16.

Muhammad, I., Nafees, A. & Iftikhar, A. (2009). Village organizations activities for rural development in North West Pakistan: a case study of two union councils of district Shangla. *Sarhad Journal of Agriculture* 25: 641–648.

Navarra, C. & Vallino, E. (2015). Who had the idea to build up a village organization? Some evidence from Senegal and Burkina Faso. *Annals of Public and Cooperative Economics* 86 (1): 33–72.

Neuendorf, K.A. (2002). *The Content Analysis Guidebook*. Sage publications.

Ørngreen, R. and Levinsen K, (2017), “Workshops as a Research Methodology”. *The Electronic Journal of eLearning*, Vol. 15 No. 1, pp. 70-81.

Quddus, M.A. (1993). *Rural Development in Bangladesh*. BARD, Comilla, Bangladesh.

Rahman, M.M. (2001). The abundance of *Aphis craccivora* Koch. (Homoptera: Aphididae) on 30 groundnut cultivars. MS Thesis, Department of Entomology, Bangladesh Agricultural University, <http://doi.org/10.5281/zenodo.4409464>.

Rahman, M.M., Ahmed, M.M., Ali, M.Y. and Adnan, S. *et al.* (2020a), “How does the Foundation Training Course Enhance the Capacity of The Young Civil Servants to Achieve Sustainable Development Goals (SDGs)? A Study on Bangladesh Public Administration Training Centre”, in Alam, M.A., Alam, F. and Begum, D. (Eds.), *Knowledge Management, Governance and Sustainable Development: Lessons and Insights from Developing Countries*, India: Routledge, <http://doi.org/10.5281/zenodo.4390495>.

Rahman, M.M. and Zaman, I. (2020) “Customer Satisfaction Level of Bangladesh Parjatan Corporation’s Restaurants”. Preprint, <https://doi.org/10.6084/m9.figshare.13227788.v2>.

Rahman, M.M., Alam, M.A., Rahman, M.M., Mamun, M. and Alam, A. (2020b), “Challenges of Artisanal Fishermen: A Case Study from Sonadia Island, Bangladesh”, in Alam, M.A., Alam, F. and Begum, D. (Eds.), *Knowledge Management, Governance and Sustainable Development: Lessons and Insights from Developing Countries*. India: Routledge, <http://doi.org/10.5281/zenodo.4405054>.

Rahman, M.M. & Neena, S.B. (2019). The marketing system of agricultural products in Bangladesh: a case study from Sylhet district”, *Bangladesh Journal of Public Administration (BJPA)* 26 (2): 61-78.

Rahman, M.M., and Alam, M.A. (2020), “Regulatory and Institutional framework for the conservation of coral reefs in Bangladesh: A Critical Review”, in Alam, M.A., Alam, F. and Begum, D. (Eds.), *Knowledge Management, Governance and Sustainable Development: Lessons and Insights from Developing Countries*. India: Routledge, <http://doi.org/10.5281/zenodo.4406850>.

Rahman, M.M. (2018). The pros and cons of co-management: a case study from the Sundarban Delta, a paper presented at World Social Science Forum 2018, 25-28 September, Fukuoka, Japan.

Rahman, M.M. (2020a). Achieving Sustainable Development Goals in Bangladesh: An Organizational Analysis. Figshare, Dataset, <https://doi.org/10.6084/m9.figshare.13077656.v4>.

Rahman, M.M. (2020b). Impact of increased salinity on the plant community of the Sundarbans Mangrove of Bangladesh”, *Community Ecology*, <https://doi.org/10.1007/s42974-020-00028-1>.

Ren, Y.; Bian, Y.; He, T. (2017) Characterizing the Land Shareholding Cooperative: A Case Study of Shanglin Village in Jiangsu, China. *Sustainability* 9, 1175. <https://doi.org/10.3390/su9071175>.

Ren, Y.; Kuuluvainen, J.; Yang, L.; Yao, S.; Xue, C.; Toppinen, A. (2018) Property Rights, Village Political System, and Forestry Investment: Evidence from China’s Collective Forest Tenure Reform. *Forests* 9, 541. <https://doi.org/10.3390/f9090541>.

Sarker, M.N.I. (2016). Causes and possible solutions of seasonal food insecurity (Monga) perceived by char dwellers in Bangladesh. *International Journal of Ecology and Development Research* 1(1): 002-009.

Sato K., Ikeda, T. Watanabe, R., Kondo, N., Kawachi, I., Kondo, K. (2020) Intensity of community-based programs by long-term care insurers and the likelihood of frailty: Multilevel analysis of older Japanese adults, *Social Science & Medicine*, Volume 245, <https://doi.org/10.1016/j.socscimed.2019.112701>.

Stuckey, H. L. (2013), “Three types of interviews: Qualitative research methods in social health”. *Journal of Social Health and Diabetes*, Vol. 1 No. 2, pp. 56-59. <https://doi.org/10.4103/2321-0656.115294>.

Teniwut, W.A., Teniwut, Y.K., & Hasyim, C.L. (2017). Family vs. Village-Based: Intangible View on the Sustainable of Seaweed Farming, in IOP Conference Series: Earth and Environmental Science. Institute of Physics Publishing. doi:10.1088/1755-1315/89/1/012021.

Thompson, P. M. (2013). Sustainability of Community-Based Organizations in Bangladesh. *Society and Natural Resource* 26(7): 778–794. <https://doi.org/10.1080/08941920.2012.723303>.

Waghmare ,S.K. & Patel, A.U. (1974) Administrative Organisation in Indian Community Development Programme. *International Review of Administrative Sciences* 40(4):350-352. doi:[10.1177/002085237404000405](https://doi.org/10.1177/002085237404000405).

Webster N. & Engberg-Pedersen, L. (2002). *In the Name of the Poor: Contesting Political Space for Poverty Reduction*. Zed Books, London, UK.

World Data Atlas (2020) Bangladesh - Adult (15+) literacy rate. <https://knoema.com/atlas/Bangladesh/topics/Education#Literacy>. Accessed on 02 November 2020.

# Exploring the Role of Union Digital Center to Managing Information Services in Rural Development of Bangladesh

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## ABSTRACT

*The information services are multidimensional and socially acts as the building block of communication among diverse groups in rural society. Rural development mostly relies on the effective use of information services in the day-to-day activities of rural people and rural administrations. In rural areas of Bangladesh, Union Digital Centre comprised of every prospect of delivering the advantages of new communication technologies towards the agricultural community who lagged behind the access to technology in their workplace, household social living, or at the institution. Prior studies revealed that the rural people of Bangladesh mostly suffer because of low productivity; the deterioration of social and economic conditions originated from the unavailability of adequate information. This article attempted to explore an overview of the roles of Union Digital Centre among various socio-politico-economic components in developing rural areas of Bangladesh. A convenience sampling technique was used to collect data through a structured questionnaire and a total of 100 respondents were selected from three old rural regions of Bangladesh. Besides, case study, focus group discussion, informal interviews, and content analyses were made. At the end, this paper discusses some findings on the importance of free access to technology for rural society, challenges, and recommendations that may guide policymakers and stakeholders.*

**Keywords:** Rural Development, Information Services, Digital Bangladesh, Union Digital Center (UDC), Access to Information (a2i) Project.

## 1. INTRODUCTION

Now a day's, information acts as prime components of development for both urban and rural communities. The ability of nations to attain produces, access, and use pertinent information leads towards prosperity, progress, and construction

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(Nahar, 2016). Researches have advocated that access to information technology is also a complicated matter to disseminating beneficiary people to know their rights to obtain benefits and identify the sources of backing to stunting social elimination (Harande, 2009). More emphasis on rural development, Okiy (2003) opined it as a strong basis for economic progress and where information is considered a significant element in the development process. Likewise, people in a rural area, either literate or else, should have smooth entrance to every kind of information service that may enable them to be capable and reasonably productive to render socio-Econo-politico obligations and an informed citizen of the nation. A previous study on the same Diso (1994) advocated that information plays a crucial role in making and implementing a policy that leads towards national development. That development would be more effective if the robust structures are established for utilization and access, capturing, coordination of information, processing and delivering, relay, and communicating to ensure governance (Rahman, 2016). Every government intends to provide a strong focus on rural development in developing countries due to the lack of national development due to the negligence of rural development. As a result of improper attention to the agricultural development many types of social problem such as rate of unemployment, anti-social activities, lack of security, prostitution, kidnapping, money laundering, child and forced labor, bribery, scanty of right living areas, the influx of diseases, (Harande, 2009). So, the aggregate development of the nation can only be active if rural society people have access to digital information. Effective information services in the rural community lead toward development. To keep pace with the right direction of growing the scope of the information services is a must that may outweigh the cost at the initial stage. Thus, the role of government and non-government stakeholders is a strong steer to give importance to the matter in the context of Bangladesh. Positively the government has taken massive efforts in this field through technology and process innovation activities with the assistance of digitalization in Bangladesh.

Bangladesh has an area of 147570 square km and filled with 163.7 million people (Ministry of Finance, 2019). And, about 80% of the total population are live in villages. India borders most of the regions. The majority of the total population lives in rural areas. The country is known as the least developed country and low-income group nations of the world. People have been running to meet basic needs such as food, clothing, shelter, health, education, and to increase living patterns. Population growth, natural disasters, unemployment, malnutrition, illiteracy, polluted environment, etc. are problems that affect the country's socio-economic situation. Information is an essential basic need in addition to all other basic needs. But in reality, the people of rural areas are far from being a part of modern information technology that made them distant from acquiring their informational needs. To develop people's capability to participate in an evolving

knowledge-based society, the rural library or Union Digital Centre (UDC) may be a reliable way of providing agricultural information services. It is one of the most effective means of disseminating information services to the people of the rural community and promotes rural economy wheel. UDC's prime objective is to accelerate, facilitate, and provide essential information to the people of an agrarian society. UDC may serve as a hub of information, points of community to advance the living conditions, and the quality of life. Despite having manifold complexities in the states of the rural dwellers' societal living, the question may arise in what ways the information service contributes to the development of the rural communities in Bangladesh, and so then how? This paper's central argument is to examine the current environment of information services and attempts to answer of the question. Besides, the research is attempts to measure the role of UDC in the socio-economic development of rural areas' of Bangladesh's state.

## **2. OBJECTIVES OF THE STUDY**

The research has designed to attain following objectives:

- To identify the extent of information services provided by UDC to the rural people.
- To measure the users' satisfaction with UDC services.
- To determine the possible ways and means that UDC can play as a partner of changing rural life and development.

## **3. LITERATURE REVIEW**

UDC is a government initiative to promote technology exploration across the country. Empirical researches literature in this specific field has not evident exclusively other than a few limited areas; thus, the scope of literature covers some developing countries of South Asia regions. For example, the e-governance system made a remarkable pathway of changing the mass digitalization system in the urban and rural areas of Bangladesh through government schemes (Hoque & Sorwar, 2015). Similarly, Habib et al. (2013) claimed that technology in rural areas of Bangladesh has got some satisfactory changes but still suffering a lot of limitations to be addressed immediately. Whereas due to the unavailability of information and communication technology (ICT) is created the digital divide to provide proper facilities (Lim, 2017), merely appearing the tasks for the arrangement of ICT offices, isn't sufficient to limit the significant digital division, principally pastoral territories in developing nations.

For this reason,(Hoq, 2014; Kumar & Kim, 2017), argued that developing nations should underscore the uses and exploration of ICT for rural development as a part of their contemporary sustainable development priority. A similar study of Chowdhury, S. (2018) contended that the rural administration is the lowest

segment of the service to the villagers, which is still providing available services, make accessibility of information and added values but still lagged behind priority and concentration. In the latest study of Faroqi et al. (2019) examined the factors affecting the sustainability of UDC (telecenters) and revealed that engagement of private entrepreneurs' commitment is the most critical factor backed by the elements of governmental patronage for sustainable operations. But Hoque, R. (2020) claimed that prior knowledge and financial inability is critical hindrances of UDC success in rural areas. Previous research came with an argument in favor and progress of ICT based library system in rural areas compared to radical exploration in urban areas. In this connection, Islam & Uddin (2005) have demonstrated the data and administration arrangement of Dhaka, Comilla, and Bogra areas in Bangladesh. And, the authors have opinioned the circumstance of the country's rural improvement libraries because of the unrest and progression of information communication technology in their study. The study further recommended that the tools and methods utilized in various useful units of these libraries to satisfy the interest of the developing information needs of the rural individuals of Bangladesh. Essentially, connecting citizens, acquiring workforce, and GoB's 'Digital Bangladesh initiates digitizing governmental functions.' UDCs are improving the procedure by which public administrations are given by changing to digital or electronic services to achieve these objectives. Notwithstanding e-administrations, economic opportunities are differentiated, and scopes for new employment have been expanded (a2i, 2013; GoB, 2009).

The nations of South Asian territory have also advocated a good number of insights. At Pondicherry, India (2002-2005), a study on Village Information center found that India explored approaches to utilize ICT for the advancement of the more derelict district. The primary beneficiaries of this project are low-pay families, minor farmers, and fishermen. Additionally, this information center focus could ready to make the general government assistance of these individuals of India. In India, the e-government projects provided most of the information services to the public mass that removes the barriers (Bhatnagar., 2004). In another study of Centre for Electronic Governance (CEG) and Indian Institute of Management, Ahmedabad (IIMA) (2004) on *Gyandoot* has advocated some remarkable advantages may be ascertained such as lessening hassle, saved time, the priority of getting supports, quickest access, removed the incidents of corruption by government officials and so on. Later on, Drljaca and Latinovic (2012) revealed a study on e-Governance at the UP level and advocated it as a base for an effective combination of knowledge-based economy and furtherance of citizens' lives in rural areas. So, the benefits of e-Governance at the UP level may not only control but also eradicate corruption and build a transparent UP management system. "Rural transformation by the establishment of community information centers in the rural areas of Nepal: a pilot project (Aryal, 2007) is

another study. The primary objective of this project, to raise awareness of rural community people, how Information and Communication innovation can make their better life. The project has indicated how the advantages of data and correspondence innovation can be reached even o the ranchers. The main point of this project is how Nepal can contend with the present world regarding Information and Communication innovation. There is another study titled multipurpose community Telecenters for rural improvement in Pakistan (Mahmood, 2005). Here the has seemed about the difficulties and chances of building up Multipurpose Community Telecenters (MCTs) in rural regions of Pakistan. The author has additionally shown the proposition to create MCTs in Pakistan as far as strategy detailing, arranging, the board, financing, building, hardware, innovation, administrations, target gatherings, showcasing, and manageability. Heeks (2001) found that e-Governance carries advantages to developing nations by making administration increasingly feasible and dexterous. He examined contextual studies from four countries, for example, Chile, the Philippines, Honduras, and South Korea. The study plots e administration (improving government task), e-citizens and e-services (connecting citizens), and external community cooperations (e-society) as vital contributions. E-governance can play an essential part in poverty elimination, reduce corruption, and low-cost service delivery to the citizens (Bertot et al., 2010). Monga (2008) studied e-governance at the local, state, and national arena of government. The research further explored that e-governance has carried a significant transformation in the delivery of service quality, such as ensuring transparency, easy proceedings, time-saving methods, decreasing corruption, improving office, and record management.

Information services are the lifeblood of cross-communication in rural areas of Bangladesh. That is why the role of ICT in stimulating economic activity of Bangladesh also been revealed in a few studies, including the development project of the government. There are a few compositions and reports on the site of Access to Information Project (A2I) under the Prime Minister's office and Bangladesh Computer Council (BCC). These two associations manage to give and organizing the ICT offices all through the nation though the lowest and grassroots level of administrative setup. It is worth notable that the facility of information and service delivery structure in Bangladesh is centralized with branches of organizational units such as sub-district as called *Upazila* and the district. But the majority portion of service recipients located in the extreme and distant rural territory. They require to travel to and from the places, visit public information offices in person to receiving general information services on collecting public records, benefits, and welfare, livelihood services called shelter medicine, education, health, and agriculture or prices of the commodity (Sarker, 2013; Faroqi and Siddiquee, 2011). Likewise, because of scanty information and

communication technology (ICT) penetration in rural and remote areas, rural people are deprived of ICT led or internet-based services (U.N., 2014). Researchers found that for photocopying, computer composes, or printing, sometimes rural people have no way but the too-long way, such as offices of sub-district headquarters or nearby locations of semi-urban business places (Jabbar, 2009). In reality, many rural areas are not ware enough about the potentials of ICT, which may change their jacket of traditional life and thus is a must to educate on e-services (Sarker, 2013; Rowley, 2006). From a comprehensive perspective, extension ICTs can add to the improvement of rural in developing nations. In any case, for this, exact instruments should be outfitted to understand the maximum capacity by joining ICT projects with the more extensive improvement plans and ensuring that nobody is abandoned, including women and unprivileged individuals in the general public. The outcomes of the study recommend that few focused on ICT extends fundamentally developed the condition of women by giving them access to various socio-economic opportunities in Bangladesh (Ashraf et al., 2011).

The role of UDC has gradually recognized while the state efforts look forwards to facilitate the basic wants of rural communities. About 72 % of the population lives in the rural areas of Bangladesh (World Bank, 2012). The BBS report (BBS, 2014) stated that UDCs is consist of a one-stop information service delivery center owned by the government and privately run to serve the rural communities such as reducing long-distance, minimizing dependency on market mediators to collect information and services as its located to the Union Parishad (UP) UP is a very closest place to the rural community. It is blended scope to reduce time, cost, removing distance, mitigating barriers of intermediaries, improving the magnitude of unresponsiveness, and absence of transparency to deliver information or services (Sarker, 2013). Thus, the service delivery system at UP can be enhanced radically by the infusion of ICT based e-government services and optimize the cost (Iqbal and Seo, 2008; Ahmed, 2015; Bhuiyan, 2011).

Thus, regardless of various socio-segment imperatives, different rural information centers or digital centers are performing a significant role in bringing the advantages of ICTs to rural people in rural areas by giving valuable information and services including health, education, cultivating, and so forth and acting to bringing detached and significant zones under inclusion in just in Bangladesh yet also in numerous other developing nations (Akther and Georgsen, 2005). Concerning rural Bangladesh, Islam and Hoq (2010) revealed the effect of internet-based assistance arrangement to the rural population where UDC contributed a considerable job. Since access to knowledge and information is a vital aspect for progressing agricultural society, it is held that ICTs can fundamentally bolster the improvement of rural areas by giving access to data and digital services. We need to connect with progressively developed areas inside a

developing nation precisely and get opportunities in general (Heeks & Bhatnagar, 1999).

Based on the above literature review, it is evident that the UDC may play a prime role in developing the rural economy, accelerate the governance system, and optimize the cost of services and supports with many more benefits. Though this concept is comparatively new and in the development stage in Bangladesh as well as other developing neighboring countries in South Asia, so this study will be shed light in the context of Bangladesh.

#### **4. RESEARCH GAP AND CONTRIBUTIONS**

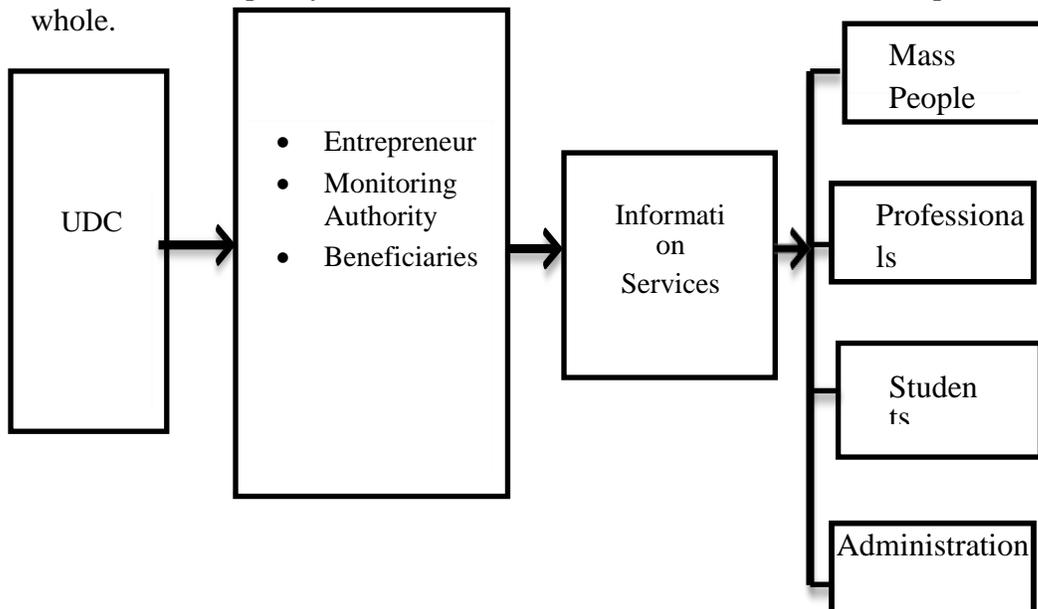
Information services are the lifeline of today's living. The advent of technology has leverage the expansion of information flows from capital to the remotest part of the country. The research in this field is continuously exploring and opening the avenue of scholarly knowledge in both academic and practical areas. Previous research has designed on qualitative analysis, factors affecting, causes of being unsuccessful UDC, demographic hindrances, urban vs. rural focus and concentrated into specific fields namely agriculture, e-library, e-governance, addressing the problems (Islam & Hoq, 2010; Faroqi et al., 2019; Hoque & Sorwar, 2015; Chowdhury, S. 2018; Hoq, 2014; Habib et al., 2013; Hoque, R.2020; Kumar & Kim, 2017). The current study mitigates the resulting significant gap. Firstly, the current research has come out with mixed methods of analysis to validate and strengthen the research findings. Secondly, the satisfaction of the users on the UDC service surveyed in this research is a new addition in the theoretical knowledge in the same fields. Thirdly, demographically the socio-economic condition is not the same in all areas in Bangladesh. The populations, as well as beneficiaries of old districts, are comparatively more significant than others. And, the findings of the current study are based on the old region that may be able to generalize a practical contextual preview. Fourthly, technological development is making a divide in the urban-rural areas. As reflected in previous studies, urban areas are quite equipped though the population is less. Conversely, the current research has exclusively addressed the impact of information services in rural development as a reliable driver of economic growth. Fifthly, the emergence of technology in the context of Bangladesh is a new area of research. Additionally, the contribution of the research has following specific implications:

- Considering the domain of the research the outcome will promote the understanding on the role of UDC among the countrywide beneficiaries. And, the challenges of UDC unleashed in the outcome will disseminate the knowledge, social awareness into mass level.

- The study will encourage the national policymakers to adopt appropriate policy or review existing policies on new HRM practices which will accelerate the services and support of UDC.
- It will help for the government or local government legislative body to facilitate the technology adoption in rural areas. This will in turn reduce the technological divide between urban and rural.
- The research may be able to broaden the knowledge of society leaders, the private practitioners and consultants, NGOs, rural economy researcher, academic discipline about the digital services.
- Finally, the outcome of the research will be an effort to leverage the state initiative of socio economic development of the country.

## 5. WORK FLOW OF INFORMATION SERVICES AND DEVELOPMENT

The information system and level of people's knowledge are critical elements of rural development. A society only enriched with information and learning if there is a regular transfer of information and communication among the stakeholders. A British professor, Richard Heeks, opined that information is a critical resource for any kind of development. Knowledge acts as the connector between individuals to control the resources and external-organizations to manage it. So, If there is no information system, there would be no linkage, and consequently, supplies could not be handled or maintained correctly. In turn, relationships with organizations and individuals paralyzed, which blocks the socio-economic development as a whole.



**Figure 1:** Workflow model of UDC developed by Authors

ICT can rigorously support the process of rural development through facilitating and providing rural communities to underscore local and regional development (Heeks and Bhatnagar, 1999). Bangladesh has been continuously trying to implement ICT projects in rural areas with the assistance of local and international aid agencies. The key priority of all projects should be to implement ICT in a rural area rather than understanding their impacts at the community level. In a study (James 2005;2004) revealed that the gap is increasing between people who have access and who doesn't.

## **6. RESEARCH METHODOLOGY**

The research is primarily based on a qualitative and quantitative approach. Qualitative data were analyzed using interpretative methods. The interpretive approach used in descriptive content analysis and social science research in an object to explore the issues and facts pertinent to questioning 'why' and 'how' (Orlikowski & Lacono 2001; Macome 2002). This research was intended to assess and apprehend the ICT implementation, prospects critically, and challenges as this is a national charter of the government of the people republic of Bangladesh. Following this lead, the current research has targeted agriculture-based rural areas and initially considered three Upazilas, including Burichang, Brahmanpara, and Debidwarj Upazillas, in the old division of Bangladesh. Table-1 shows the typical characteristics of three Upazilas.

**Table 1:** Contextual data on three Upazilas (Study sites)

<b>Study sites (Upazila)</b>	<b>Area</b>	<b>Populati on</b>	<b>Density</b>	<b>Major occupati on</b>	<b>Liter acy Rate</b>	<b>Geographic al condition</b>
Burichang	163.76 km <sup>2</sup>	259,564	1,583/km <sup>2</sup>	Agriculture	55.3%	Traditional
Brahmanpara	128.9 km <sup>2</sup>	181,477	1408/km <sup>2</sup>	Agriculture	48.59%	Traditional
Dabidwar	238.36 km <sup>2</sup>	378,401	3239/km <sup>2</sup>	Agriculture	59.83%	Traditional
Source- ("Brahmanpara Upazila - Banglapedia," n.d.; "Burichang Upazila - Banglapedia," n.d.; "Debidwar Upazila - Banglapedia," n.d.)						

On site-observation, interviews with users, and informal conversations with focus groups using a self-administered structured questionnaire based on Likert five-point scales were executed for primary data collection such as 1=Strongly Disagree, 5=Strongly Agree, 3=Neutral. Primary data collected from a total of hundred (n=100) interviews that were carried out with users in the center, supported by an interview guide. The number of respondents is selected based on convenience sampling techniques. Compared to the number of total populations of the area there is no factual data on the real number of UDC users. Convenience sampling is helpful to attain relevant data on time, collect information from the knowledgeable respondent, make the process easier that allowed the researcher to best bit with research objective (Sousa, 2004; Saumure & Lisa, 2008). And, it is suggested that the simplest case for large samples should be at least 30 (Gupta & Gupta, 2010; Saumure & Lisa, 2008). Based on the justification, the researcher has chosen non probabilistic convenience sampling and the sample size is 100. The UDC operator also helped to choose potential users of service to act as the respondent of the research. Prior research attested that the story sharing of participants is a recognized tool of capturing the changes information as it is interpreted by the participants in light of people's intelligence, relationships, continuity of events, cause and effect (Davies & Dart, 2005; Willetts, 2007). Following the prescription, this research conducted the story and case sharing; group interviews were made to collect data from the village users who regularly receive UDC services. Physical observations at the centers also took place to gather additional data, background knowledge. The six items of the questionnaire are extracted to determine users' satisfaction, from the literature studies of previous research (Hoque & Sorwar, 2015; Faroqi et al., 2019; Chowdhury, S. 2018; Rahman et al., 2019; Kumar & Kim, 2017). Secondary data has been

searched to clear the understanding and insights of the project of the government, official websites, and e-services. The period of data collection was from January 2018 to June 2018. Statistical Package for Social Science (SPSS) version 22.0 was used analyses descriptive statistics.

## **7. ABOUT UNION DIGITAL CENTRE (UDC) AND RURAL PEOPLE IN BANGLADESH**

Bangladesh's government has declared a vision of Digital Bangladesh by 2021 to ensure digital services at the doorsteps of ordinary people (Kashem, Akhtar, & Rahman, 2014). The total number of 4,554 UDC has been established at all Union Councils, to accomplish this vision. Most of the UDCs have been operative since November 2010. To bridge the gap between government services and mass population, to decentralize the delivery of public services and to take them to the doorsteps of millions of underserved citizens, the access to information (a2i) program under the office of the prime minister has launched with the technical support from UNDP and USAID. Under these projects, the UDC has established among all union councils of Bangladesh (a2i, 2014). The UDC was established as a joint venture under access to Information (a2i) project and the Local Government Division (LGD) with support and collaborations from the United Nations Development Program. The principal objective of UDC is to creating and promoting a knowledge-based society through facilitating local service delivery points. It will able to bring and cater to different government and commercial social services to the doorways of the urban community. Thus, UDC will be able to lessen the time, cost, suffering of services, hassle and will be able to ensure the involvement of a poor section of people, men, and women, to obtain, use information services to connect them to the information gateways (a2i, 2012). The UDC is an ICT driven one-stop service center operated the public-private partnership (PPP) model, where rural people can gather multiple types of information services through numerous service provider agencies. Mainly there are three parties (Entrepreneurs, Beneficiaries, Monitoring Authority) in the entire process. (Ahmed, 2015) There are prescribed fees for the delivery of the different levels of services, not including access to government, commercial, and local government types. To make the service more vibrant, ease, and economically friendly, the government has associated efforts with cellular phone companies, banks, insurance, and other non-governmental organizations (a2i, 2011a). It is quite optimistic that UDC is composed of two essential elements: e-government and m-government services (Faroqi, 2015). Accordingly, both former and latter one is capable of serving through information/services of various stages such as 'emerging presence' and 'enhanced presence,' 'interactive,' 'transactional' and 'integrated' levels (a2i, 2011a; U.N. 2012). The core components of UDC is ICT enabled one-stop service provided from union councils at union level. There are

about 123, 41 young entrepreneurs serving at 4,554 UDCs, and fifty percent are women. All the entrepreneurs are freelance or self-employed, not paid by the government. To the long term survival of UDCs, the aid from government agencies, privately-owned organizations have been mobilized through collaborative partnerships. In line with that partnership from private banks such as Dutch-Bangla, Mercantile, Trust, BRAC bank, One Bank facilitating online banking facilities and insurance agencies such as Jibonbima Corporation, mobile telecommunication companies such as Robi, Banglalink, non-govt. Organizations such as the British Council, Practical Action, Ankur ICT Development Foundation, troubleshooting support firms such as BCS, Cyber Cafe Association of Bangladesh, and many government agencies such as Bangladesh Computer Council, Cabinet Division are worth mentionable in this regards.

Providing rural information services, UISC plays a significant role. The core objective of UISC is to offer the necessary information to rural people. To reduce the difference between urban and rural, information Center offers information and commercial services at a low cost.

UDCs have three vital services to offer, and those are information services, government services, and commercial services. Government services include online birth registration, a supply of government forms, circulating government notices, public university admission process, and results, recruitment of government offices, data of population census, nationality certificate, citizen charter in the local government office, etc. Information services include manifold of information to the general mass in the areas of health, safety, agriculture, education, law & human rights, tourism, environment & disaster management, science & technology, industry & commerce, and employment delivered by national e-Tathyakosh (National e-Content Repository). Commercial services include mobile banking, insurance, photocopy, English language learning, computer training, internet browsing, email, printing, scanning, compose, laminating, data entry, photography, phone call, Flexiload, mobile ringtone download, video show, video conference, projector rent, passport & visa processing, height & weight measurement, blood pressure measurement, mobile ringtone download, video calling, video show, soil test, arsenic test, etc. (a2i, 2013).

A study by a2i has evaluated the impact of the UDCs (see table 1) on the service level of each defined category. It revealed that service processing time has remarkably reduced and optimized; for example, previously, it took 7 to 8 days to obtain a birth registration, but this service becomes available within less than 8 hours at UDCs. Similarly, the receipt of death registration certificates becomes possible within 5 hours instead of nearly two days.

**Table 2:** Service-wise reduction in TCV

Services	Before UDC			After UDC		
	Time (in HRS)	Cost (USD)	Visit	Time (in HRS)	Cost (USD)	Visit
Birth Registration	211.52	1.6	2.19	7.58	0.9	1.23
Citizen Certificate	24.9	0.7	1.71	2.97	0.5	1.07
Exam Registration	6.27	1.2	1.07	2.30	0.2	1.03
Death Registration	39.39	1.9	2.5	4.52	0.6	1.09
Photocopy	5.55	0.9	1.14	0.49	0.2	1.01
Computer Compose	16.84	1.5	1.44	0.63	0.5	1.02
Photography	39.7	1.6	1.82	1.36	0.4	1.04
Internet Browsing	3.02	1.7	1.28	0.53	0.4	1.02
Electricity Bill Payment	4.31	0.9	1.21	0.343	0.2	1
Job Search	12.47	2.6	1.5	0.75	0.7	1

Source- <https://a2i.gov.bd/publication/union-digital-centre/>

Based on census 2013, it was found that a total of 4,492 UDC were functional out of a total of 4,547, and the remaining 41 was found inoperative. Comparatively, female entrepreneurs were found to be more proactive than males. Major ICT items at UDC, such as photocopy machines, laptop computers, internet modems, and multimedia projectors, were jointly shared by government and private owners. Individual owners owned the mobile phone. The similar finding shows that there are more than sixty different services delivered at every rural union and among those electric bill payment facilities, registration of land, birth and death registration, life insurance, different types of government forms, the result of admission and public examinations, university admissions, agriculture, and health-related services, vocational computer training and many other ways of internet services and supports (Bangladesh Shongbad Shongstha, 2014). Table 4 exhibits the top ten UDC services by private entrepreneurs. The census also revealed that nearly 3.91 million urban populations are covered under these

services of UDC, and among them, 949,120 are women.

**Table 3:** Top 10 services provided in UDCs

Types of Services	Total no of UDCs	Percentage of UDCs
Registration of Birth	3, 368	75
Composing facility	2, 926	65
Citizenship certificate	1, 885	42
Snapshot	1, 602	36
Photocopy services	1, 715	38
Death certificate	1, 462	33
internet and email	1, 427	32
Result of Examination	1, 211	27
Scanning	932	21
Job-related information	645	14

Source: UDC Census 2013 (BBS, 2014)

One of the essential features of UDCs is the public-private proprietorship. The centers are owned by the local government and administered by two individual owners where one is a woman. A2I Bulletin (2013) has reported that including 4516 women, 9,032 entrepreneurs earned BDT 1.3 billion (USD 16 million) till January 2013. According to the Bangladesh Bureau of statistics, the UDCs have received a gross amount of profit BDT. 24.30 million from each center where the monthly making was 5,410.26. Thus UDCs have proved to be a financially tight profit margin (BBS, 2014). The services of UDC gradually widen in a dramatic form of doorstep services exploration among the rural areas of Bangladesh (Karim et al., 2011). The digital connectivity among rural people becomes a high center of exchange, and services are faster, smoother, and cost-effective. The emerging role of UDCs is now recognized as a center for information hub and towards the local community of rural areas. The government of Bangladesh has put cordial attention and took newer steps to generate the level of services and make the project more reliable and people-friendly. UDC has the following aims:

- To infuse awareness among rural people of the sources of information and encourage them to make use of data available in the information centers.
- To look after the educational, economic, cultural, and social information needs for the rural community.
- To transform uneducated/illiterate and neo-literate into potential users.
- To facilitate information on all aspects such as agriculture, financial,

public hygiene, family planning, legal matters etc.

**8. ANALYSIS OF DATA**

**8.1 Demographic presentation of data**

The demographic outcome of data shown in the below table:

**Table 4:** Demographic data

Characteristics of Respondent	Numbers	Percentage
<b>Age</b>		
20-30	50	50%
31-40	35	35%
41-50	15	15%
<b>Education</b>		
Primary School Passed	25	25%
High School Passed	35	35%
College Study/Passed	40	40%
<b>Gender</b>		
Male	80	80%
Female	20	20%

**8.2 Descriptive statistics on response**

The responses of the beneficiary of UDC have been extracted through a designed questionnaire keeping a specific focus on the services received. The outcome of the data exhibits below in descriptive statistical methods.

**Table 5:** Response of the Beneficiary

<b>Descriptive Statistics (on service response)</b>					
	N	Min	Max	Mean	SD
UDC provides important information whatever I need	100	1	5	3.96	1.317
UDC helps us to know quick information services	100	1	5	3.72	1.464
UDC enhance knowledge in many different fields	100	1	5	3.95	1.266
UDC is easy to access and easy to	100	1	5	3.96	1.317

use					
I can easily absorb the fee of various services of UDC	100	1	5	3.90	1.382
The assistance of UDC benefits me	100	1	5	3.87	1.290
Valid N (listwise)	100				

Source: Data analysis

## 9. RESULT

Based on the sampled data collected the analysis has been made. In the demographic analysis, we found half of the respondents' age (n=5) is 20-30, and 35% (n=35) are at the age range of 31-40, whereas 15% (n=15) belongs to the age of 41-50. In the case of education level, we have reported that 25% (n=25) are primary school passed, and 35% (n=35) are high school passed. But, college studies or passed are 40% (n=40). In term of gender there are 80% (n=80) is male and 20% (n=20) is female. According to table 5, young people are quite often visiting the UDC for securing the service compared to the others. It is may be because of their attitude and interest to use technology for attaining relevant information on their academic, vocational training, government, and non-government job searching and submitting the job applications.

Additionally, people at the age of 31-40 are also searched for much type information of their foreign visa, passport, and job opportunities in the non-government sector. The lower number at the age of 41-50 revealed the people are usually having information on doctors, medical health checkups and similar purposes. In line with the above explanations, we have evidence the same result from the educations class as well, where most of the respondents visited UDC are from college study or passed. And, this finding supported earlier statements of interpretations. Interestingly, people at the age of primary school are 25% show their visit only out of curiosity, sometime to get education board result, Facebook browsing, or passing their idle time. The gender-wise participation shows a remarkable insight where the highest (80%) is male, and the lowest is female (20%). Considering the socio-economic condition of the village of Bangladesh, the freedom of participation, encouragement from family, society norms could be one of the essential reasons for this percentage. Table 6 is the reflection of the satisfaction level of respondents. We have found that the extent of satisfaction with UDC is a moderately high percentage (mean value is more significant than 3.72) of the respondents is reasonably satisfied with receiving different types of services from UDC. The highest level explored in respect of securing information service from UDC and ease of use (Mean =3.96). This finding is quite relevant to the objectives of the UDC to explore the information services among the general

mass of urban areas.

Similarly, the role of UDC in knowledge acceleration (Mean=3.95) and the reasonable fees (Mean=3.90) is quite encouraging for urban people to be connected with digital technology. However, the quick information revealed is comparatively lower. Still, the acceptable result (mean=3.72), which may be because of the interruption of services, network unavailability, the irregular power supply of power, may hamper the seamless service and supports.

**10. FINDINGS (CASES)**

The significant findings of this study discussed under the section in showcasing some cases taken among the beneficiaries of UDC. The impact of UDC has been examined and articulated from the perspective of its recipients. The following instances depict how UDC changes livelihood through the means of digital culture. The analysis has evident that the UDC project has lessened the time and distance barrier of nominal earning people to cater and obtain information in the twinkling of an eye compared to the previous stands. The following cases may reveal the lead discussion of findings.

*Mr. Kamal is a 20 years' farmer who did not know the scientific techniques of farming. He did a challenging job with very low productivity the whole day by using his bulls in his lands. Suddenly he heard about UDC by one of his neighbors. He made a visit to UDC and collects a piece of printed information on the scientific method of cultivation. He had a school going daughter who helped him reading the techniques and teach how to go about it. Following that, he started his new way of cultivation. His earning, performance-, enhanced, and he expressed sincere thanks to the UDC.*

**Table 6: Case Findings**

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes In Behavior</b>	<b>Broader development Impact</b>
Absence of knowledge	I am attaining new skills.	More confidence about output.	The buildup of the efficient and knowledgeable farmer.

Besides, this UDC project also acts as a reliable aid for rural students in obtaining advanced skill and professional knowledge. The UDC has become a vital source of prospective students to ascertain information about the foreign scholarship, admission information, scholarship IELTS, SAT, etc.

*Mr. Mostafizur Rahman is a higher secondary student who also earned from private tutorship at the village. He has a dream to*

*study in the USA under the scholarship program. For the admission, he was looking for information. One of his friends informs him about the UDC and available. He immediately went there and browse through internet facilities. Within a short time, he educates himself on admission requirements, means to attain IELTS, SAT score. UDC services helped him to download the IELTS guideline, SAT process vocabulary list, and the same he printed from UDC. He already started him to be prepared for USA admission for higher study.*

**Table 7: Case Findings**

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes</b>	<b>Broader development Impact</b>
Dearth awareness	off am gaining new skills.	It has enhanced the level of confidence about the future.	The buildup of the efficient and knowledgeable student.

From the analysis, it has found that the UDC project has also helped rural students to interact with urban students and to share information.

*Mr. Sharif Hossain is a friend of Mr. Mostafizur Rahman. He is a regular visitor and user of UDC internet services. Sharif has opened an account on Facebook and LinkedIn to make social connections among his friends and rural students. He interacts with different people through Facebook and LinkedIn every week and exchange views, knowledge among relatives.*

**Table 8: Case Findings**

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes</b>	<b>Broader development Impact</b>
Internet browsing	Acquisition of online social skills.	More confidence about the future.	The buildup of efficient and knowledgeable students.

The UDC project assists village people by providing information and

application assistance to go abroad.

*Mr. Abdullah has planned to go aboard for a job. He was trying in many ways for a long time even gets a connection with middleman brokers. After paying money to the broker has become cheated. His family was also suffering from financial loss though a small amount been recovered by the village leaders. A day he came to know that UDC is providing information about employment facilities of foreign countries at a reasonable cost. He was planning to go to Malaysia, and accordingly, he knew the government recruiting process from Malaysia. Mr. Abdullah applied for employment in Malaysia through UDC services.*

**Table 9: Case Findings**

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes</b>	<b>Broader development Impact</b>
Lack Consciousness	Aware of	More confidence about his dream.	The buildup an efficient and knowledgeable workforce.

At present, rural people can excel in their professional and vocational skills by training at UDC and get a job, which reduces the unemployment problem in rural areas.

*Mr. Sumon Debnath had no job though he passed B.A. from a college. His family decides hi to get enrolled in the UDC computer training course to learn basic of the computer. The training includes typing, composing, etc. He became experienced in computer typing, forming after three months of training at UDC. The UDC also provided him with a certificate of training. After finishing the course, he went to Dhaka and got a job as a computer typist.*

**Table 10: Case Findings**

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes In Behavior</b>	<b>Broader development Impact</b>
Vocal training in computer	Gathering of the new skill of the job	Enhanced Higher self-belief	The buildup of an efficient and knowledgeable workforce.

UDC helped rural people to get regular health checkups and also to solve health-related problems.

*Mr. Shahin Bashar is the owner of a grocery shop at his village. His mother is 65 years old who frequently got sick for high blood pressure, blood sugar. To Medicare, his mother, Mr. Shahin, regularly moves her to meet local clinics at the expense of money, effort, and doctors' fees. Recently he started to visit UDC for checking blood pressure, blood sugar, and he visits the expert doctor once the level is severe. The UDC service helped him in less time, money, and efforts but excellent service.*

**Table 11: Case Findings**

Context	Changes in Behavioral Precursors	Changes	Broader development Impact
Health service	I am finding an alternative and quicker source.	More time for work	Better use of time by productive people

The passport and ancillary services also provided by the UDC

*Mr. Sazzad Hossain wants to make a passport to go to Malaysia. He came to UDC to learn all the processes about the application for a Passport. After gathering all the information, he took a passport application form from UDC and applied for it securely.*

**Table 12: Case Findings**

Context	Changes in Behavioral Precursors	Changes	Broader development Impact
Absence of information	Proper knowledge of the passport processing	Higher confidence and security	People will be more secured from the mischief of a conman.

UDC is a center for facilitating land mutation, registration, and related services

*Mrs. Saleha is a housewife of a joint family who lost her husband ten years before. She wanted to get the hairy land of his husband from a joint family. Once she claimed for the property, she got a non-cooperative reply from the brother of his husband. The brother*

*did not want to settle her claim on the owner of hairy land. A day, Mrs. Saleha discussed the same with a neighbor who helped her visit UDC to get advice on land law, division, etc. knowing from the UDC about that process of a hairy property, she again claimed and. Got the possessions of the land.*

**Table 13:** Case Findings

<b>Context</b>	<b>Changes in Behavioral Precursors</b>	<b>Changes</b>	<b>Broader development Impact</b>
Dearth of information	Proper awareness about the law	Higher confidence and security	Women empowerment

**11. CHALLENGES OF UDC**

- A. Gender Discrimination; In a study (TIB Report 2017) found that most of the UDC’s based entrepreneur who receives training are male. The fundamental training on computer, 91.1% male entrepreneurs where the percentage of female entrepreneurs are 86.1%.
- B. Logistic supports: Providing equipment, logistics, and financial support are significant challenges for conducting this project smoothly.
- C. Selection of entrepreneur; UP chairman and secretaries attempted to choose entrepreneurs from their family members and individual associations without concentrating on their insight and aptitudes on PC and other ICT knowledge. Furthermore, in the more significant part of the UDCs, finding talented and capable female business visionaries is a considerable challenge. Now and again, families don't urge female entrepreneurs to go to UDCs for social barriers and hindrances, particularly for working with an obscure male entrepreneur. Along these lines, in certain spots, female entrepreneurs are found as relatives or family members of male entrepreneurs.
- D. Internet access and power supplies; Inadequate internet connectivity is a common problem in UDC. Most of the UDC depends on the SIM modem for internet connectivity. For this reason, slow internet is caused by delays and insufficient service deliveries.
- E. Lack of awareness; most people know about UDCs by name, but they don’t know about the available services UDCs provide because of a lack of publicity in the local area (Sahid Ullah, 2016).
- F. Coordination gap; Sometimes, there is a coordination gap between union parishod stakeholders and UDC entrepreneurs.

## **12. CONCLUSION AND RECOMMENDATION**

The influx of technology in Bangladesh is like a new engine of the old trains that speedup the services to the passengers. This research finds that UDC is an excellent means to develop the rural community of Bangladesh, focusing on information services with the help of technology. The beneficiaries are from different social classes that build and create a new world of hope and prosperity to contribute to the nations. No information is worthy unless it is communicated for serving a purpose. We have found that people in rural areas are getting significant benefits from UDC. Thus, the UDC does the job among students, women, educated unemployed persons, farmers, teachers, journalists, employees - government or private, doctors, people in business, residential/non-residential Bangladeshi people, and many other classes of people can get benefits from UDC as per their requirements. Females should be encouraged to use the services of UDC, and on the contrary, the use of school-goers should be controlled within the purpose only. To enhance the project, total infrastructure should be developed. More skilled and educated employees should be hired to operate UDCs. They should be given proper training for operation, and motivation to help the UDC users whole-heartedly. Besides, more awareness about the functions of UDC should be developed through different promotional strategies. Existing equipment used in UDC should be maintained appropriately, and more and sophisticated equipment should be supplied. Apart from those some remarkable supports such as human resources development, strong financial supports, affordable connectivity, reliable internet connection, efficient and trained people, active monitoring, true relation among the parties and partners should be ensured.

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**REFERENCES:**

- Ahmed, SS, (2015), 'Public Service Delivery- Role of Union Digital Center (UDC) and Impact on Improving Governance and Development: A Case Study of Narayanganj District, Bangladesh' BRAC Institute of Governance and Development (BIGD), BRAC University Access to Information (a2i) Programme. 2013. 'Digital Bangladesh: E-services for everyone. Dhaka,': Prime Minister's Office, Government of Bangladesh.
- Access to Information (A2I) Program (2011a), 'Sustainability and Business Plan for Union Information and Service Centre (UISC)': Dhaka: Prime Minister's Office.
- Access to Information and Service Centre (A2I). (2012) 'Union Information and Service Centre (UISC): Bringing Services to Citizen's Doorsteps.' Dhaka: Prime Minister's Office.
- Access to Information (A2I) Program, (2014), 'Initiatives: Union Information and Service Centers (UISC), Dhaka: Prime Minister's Office. Retrieved on 04/04/14 from <http://a2i.pmo.gov.bd/content/unioninformation-and-service-centres-UISC>
- A2I (2013). *Access to Information Programme (A2I) Evaluation Report*, Prime Minister's Office, Dhaka, Bangladesh
- Akther, F., & Georgsen, M. (2012). Telecentres: One-Stop Learning Hubs in Rural Bangladesh. *Department of Communication, Aalborg University, Denmark*.
- Ashraf, M., & Malik, B. T. (2011). Gonokendra model: a response to "information poverty" in rural areas of Bangladesh. *Information Technology for development, 17*(2), 153-161.
- BBS. (2014). 'Census Report on Union Information and Service Centres (UISCs). Bangladesh Bureau of Statistics (BBS), Statistics and Informatics Division (SID), Ministry of Planning, Government of the People's Republic of Bangladesh And Access to Information (A2I) Programme, Prime Minister's Office (PMO), Government of the People's Republic of Bangladesh.
- Brahmanpara Upazila - Banglapedia [WWW Document], n.d. URL [http://en.banglapedia.org/index.php?title=Brahmanpara\\_Upazila](http://en.banglapedia.org/index.php?title=Brahmanpara_Upazila) [Accessed 10 Jan. 2019].
- Burichang Upazila - Banglapedia [WWW Document], n.d. URL [http://en.banglapedia.org/index.php?title=Burichang\\_Upazila](http://en.banglapedia.org/index.php?title=Burichang_Upazila) [Accessed 10 Jan. 2019].

- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government information quarterly*, 27(3), 264-271.
- Bhatnagar, S. (2004), 'E-Government: From Vision to Implementation – A Practical Guide with Case Studies,' New Delhi. SAGE Publications India Pvt. Ltd.
- Bhuiyan, S. H. (2011), 'Modernizing Bangladesh public administration through e-governance: Benefits and challenges. *Government Information Quarterly*, vol . 28, no. 1, pp. 54–65. <https://doi.org/10.1016/j.giq.2010.04.006>
- Chowdhury, S. (2018). Do government web portals matter for citizen engagement in governance? A study of rural local government digital centres in Bangladesh. *Asia Pacific Journal of Public Administration*, 40(2), 132-141. <https://doi.org/10.1080/23276665.2018.1483051>
- Debidwar Upazila - Banglapedia [WWW Document], n.d. URL [http://en.banglapedia.org/index.php?title=Debidwar\\_Upazila](http://en.banglapedia.org/index.php?title=Debidwar_Upazila) [Accessed 10 Jan.2019].
- Diso, LI, (1994), 'Information policies and government guidance in Nigeria: What hope for communities?' *Resource Sharing and Information Networks*, vol. 9, no. 2, pp.141–151.
- Drljača, D. & Latinović, B, (2012), 'E-Governance in Republic of Srpska-Challenges and Prospects,' *Quality of Life (Banja Luka)-APEIRON*, vol. 5, pp. 32-40.
- Dart, J. & Davies, R. (2003) A Dialogical, Story-Based Evaluation Tool: The Most Significant Change. *American Journal of Evaluation*, 24, 2, 137-155.
- Faroqi, MG. & Siddiquee, NA, (2011). 'Limping into the Information Age; Challenges of E-Government in Bangladesh', *Journal of Comparative Asian Development*, vol. 10, no. 1, pp. 33- 61.
- Faroqi, M. G., Siddiquee, N. A., & Ullah, S. (2019). Sustainability of telecentres in developing countries: Lessons from Union Digital Centre in Bangladesh. *Telematics and Informatics*, 37, 113-127. <https://doi.org/10.1016/j.tele.2018.05.006>
- Faroqi, M. G. (2015), ' *An assessment of e-government: a case study on union digital centers (UDC) in Bangladesh.*
- GOB, (2009), 'Digital Bangladesh Concept Note' Access to Information Programme Dhaka: Prime Minister Office.
- Gupta, S. P., & Gupta, M. P. (2010). *Business statistics*. Sultan Chand & Sons.
- Harande, YI, (2009), 'Information Services for Rural Community Development in Nigeria,' *Library Philosophy and Practice* 2009. ISSN 1522-0222.

- Heeks, R. (2001). Understanding E-governance for Development, I-Government Working Paper Series, Institute for Development Policy and Management, University of Manchester, the UK.
- Heeks, R. (2003), 'Success and Failure Rates of e-Government in Developing/Transitional Countries: Overview,'the University of Manchester [Retrieved from [www.egov4dev.org/sfoverview.htm](http://www.egov4dev.org/sfoverview.htm)]
- Heeks, R. (2009), 'the ICT4D 2.0 Manifesto: Where Next for ICTs and International Development?'*Development Informatics, Working Paper No.42*.
- Habib, A., Chowdhury, D. & Bhattacharjee, M.K. (2013) ICT for Development and UISC: A Step to Alleviate Poverty in Rural Areas of Bangladesh. In *Proceedings of the 7th International Conference on Theory and Practice of Electronic Governance* (342-343) ACM
- Hoq, K.M.G. (2014) Rural Library and Information Services, their Success, Failure and Sustainability: A Literature Review. *Information Development*, 31, 3, 294-310.
- Hoque, M. R., & Sorwar, G. (2015). ICT Based e-Government Services for Rural Development: A Study of Union Information and Service Center (UISC) in Bangladesh. *The Electronic Journal of Information Systems in Developing Countries*, 71(1), 1-19.
- Hoque, R. (2020). The impact of the ICT4D project on sustainable rural development using a capability approach: Evidence from Bangladesh. *Technology in Society*, 101254.
- Heeks, R., & Bhatnagar, SC, (1999), 'Understanding success and failure in information age reform. In R. Heeks (Ed.),'*Reinventing government in the information age: International practice in IT-enabled public sector reform*. London:Routledge.
- Iqbal, M.S. & Seo, JW, (2008), 'E-Governance as an Anti-Corruption Tool: Korean Cases.' [http://www.karis21.or.kr/karis21admin/adaction/down/03Iqbal\\_Seo.pdf](http://www.karis21.or.kr/karis21admin/adaction/down/03Iqbal_Seo.pdf)
- Islam, M. S., & Uddin, M. H. (2005). Information support services of the rural development libraries in Bangladesh. *Malaysian Journal of Library & Information Science*, 10(1), 105-116.
- Islam, M. A., & Hoq, K. M. G. (2017). Community Internet access in rural areas: A study on community information centres in Bangladesh. *Malaysian Journal of Library & Information Science*, 15(2), 109-124.
- Jabbar, M., (2009), '*Digital Bangladesh*. Dhaka, Bangladesh. Ananda Publishers.
- Jatiyo e-tothyokosh. (2014). *Home*, A2I, Dhaka, Bangladesh. Retrieved on 20/02/2014 from <http://www.infokosh.bangladesh.gov.bd/>
- James, G, (2000), 'Empowering Bureaucrats,'*MC Technology Marketing Intelligence*, vol. 20, no. 12, pp. 62-68.

- Jeremy, Millard. Beep Knowledge System and case owners, (2002-2005): Social Inclusion Cases Village Information Centres, Pondicherry (India) Case study 119. Available at [http:// www.beep-eu.org/\(dt.27.10.2019\)](http://www.beep-eu.org/(dt.27.10.2019)) The Best eEurope Practices (BEEP).
- Karim, H. N., Mina, Q&Samdani, G. (2011). 'Going Digital: Realising the Dreams of a Digital Bangladesh for All.' Dhaka, Bangladesh. The University Press Limited.
- Kashem, M. A., Akhtar, N., & Rahman, A. (2014). *An Information System Model for e-Government of Digital Bangladesh*.
- Kumar, A. S., & 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. <http://dx.doi.org/10.20522/APJBR.2016.1.2.89>
- Lim, L. K. (2017). Exploring Rwanda's Continuing Education Capacity for Information Communications Technology (ICT) Skills.
- Lu, J. & Zhang, G., (2003), 'Cost-benefit factor analysis in e-services.' *International Journal of Service Industry Management*, Vol.14, no. 5, pp. 570-595. MCB UP Ltd Publisher.
- Mahmood, K. (2005). Multipurpose community telecenters for rural development in Pakistan. *The Electronic Library*.
- Monga, A. (2008). E-government in India: Opportunities and challenges. *JOAAG*, 3(2), 56.
- Ministry of Finance. (2019). Bangladesh economic review 2019. Finance Division, Ministry of Finance, and Government of the People's Republic of Bangladesh. [https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/f2d8fabb\\_29c1\\_423a\\_9d37\\_cdb500260002/Ch-11%20%20%28English-2019%29.pdf](https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/f2d8fabb_29c1_423a_9d37_cdb500260002/Ch-11%20%20%28English-2019%29.pdf)[Last accessed march 31, 2020].
- Nahar, N, (2016), 'NGO, Poverty and Development in Bangladesh: An Overview,' *Bangladesh Journal of Public Administration*. vol.24, no.2, pp.153-171.
- Okiy, RB, (2003), 'Information for rural development: Challenge for Nigerian rural public libraries,' *Library Review*. Vol .52, no. 3, pp.126-131.
- Orlikowski, W. J., & Iacono, CS, (2001), 'Research commentary: Desperately seeking the "I.T." in I.T. research—A call to theorizing the I.T. artifact.' *Information systems research*, vol. 12, no. 2, pp.121-134.
- Rowley, J. (2006), 'An analysis of the e-service literature: towards a research agenda. *Journal of Internet Research*.vol. 16, no. 3, pp. 340-360.

- Rahman, ML, (2016), 'E-Governance and Bangladesh,' The Daily Star, Dhaka. Available at: <https://www.thedailystar.net/25th-anniversary-special-part-1/e-governance-and-bangladesh-210577>[Accessed 22 May. 2019].
- Rahman, M. S., Barau, A. A., & Noman, M. R. A. F. (2019). Service delivery effectiveness of Farmers' Information and Advice Centres in Dinajpur Sadar Upazila of Bangladesh. *Information Processing in Agriculture*, 6(4), 462-470. <https://doi.org/10.1016/j.inpa.2019.03.002>
- Sarker, A.K., (2013). 'Digital Bangladesh: Swapna Purner Ovijatra (A Journey to fulfill Dreams). Lalmatia, Dhaka. Tothyoseba Barta Songstha (TSB) Publisher.
- Sousa, V. D., Zauszniewski, J. A., & Musil, C. M. (2004). How to determine whether a convenience sample represents the population. *Applied Nursing Research*, 17(2), 130-133.
- Saunders, C.S., & Jones, J.W. (1992), 'Measuring the performance of the information systems function,' *Journal of Management Information Systems*, vol. 8, no. 4, pp.63-82.
- Saumure, K., and Lisa M. G (2008). Convenience Sample. The SAGE Encyclopedia of Qualitative Research Methods. Thousand Oaks, CA: Sage. <https://dx.doi.org/10.4135/9781412963909.n68>
- Sahid Ullah, M. (2016). Empowering rural communities through telecentre connectivity: experience of the Union Information and Service Centres in Bangladesh. *Media Asia*, 43(2), 112-125.
- Siddiquee, NA. & Faruqi, MG. 2013 'A Road Far Too Long? E-government and the State of Service Delivery in Bangladesh' in Halpin et al.' *Digital Public Administration and E-government in Developing Nations: Policy and Practice* IGI Global/SPSS Inc. (2012) IBM SPSS Statistics (Version 21.0), Somers, NY: IBM Corporation.
- Sudip, A. (2007). Rural transformation by the establishment of community information centers in the rural areas of Nepal: a pilot project. In *Nepal Rural Information Technology Development Society, NRIDS, Nepal. Submitted to United Nations Economic Commission for Asia and the Pacific, ESCAP, Bangkok, Thailand. Available at telecentresap.org/meeting/cmap2007/Nepal\_Paper\_NRIDS.pdf,(dt. 26.09. 2007).*
- TIB. (2017). *Union Digital Centers (UDCs) in Delivering Services: Roles, Potentials and Challenges.*
- United Nations (U.N.) 2012. 'United Nations E-government survey- E-government for the People.' New York. Economic and Social Affairs.
- United Nations (U.N.) 2014, 'E-government Survey- E-Government for the Future We Want.' New York: Economic and Social Affairs.

- U.N. (2012). E-Government for the People. Department of Economic & Social Affairs Division for Public Administration and Development Management, United Nations, New York.
- Union Digital Centre – a2i, n.d. URL <https://a2i.gov.bd/publication/union-digital-centre> [Accessed 10 Mar. 2019]
- Wei, K.K., Teo, H.H., Chan, H.C. & Tan, B.C.Y. (2011), 'Conceptualizing and Testing a Social Cognitive Model of the Digital Divide,' *Information Systems Research*, vol. 22, no.1, pp. 170-187.
- Willets, J. & Crawford, P. (2007) The Most Significant Lessons about the Most Significant Change Technique. *Development in Practice*. 17, 3, 367-379.

## **Letter to the Editor**

### **UDC and e-Service Delivery at Local Government Level in Bangladesh: A Framework for e-Government**

Saroar Ahmed Saleheen<sup>1</sup>

#### **ABSTRACT**

*This is the age of Information and Communication Technology (ICT) which has brought change by being an integral part of governmental service delivery of the twenty-first century. Public service delivery is a great concern for governments. The present government of Bangladesh has realized this fact of ICT and has introduced ICT based Union Digital Centre (UDC), district and upazila web portals to provide quicker and smoother services to the people for creating “Digital Bangladesh”. The main focus of this study is to bring citizens under the whole e-governance system. ICT based UDCs are the main actors for this purpose.*

*The present government has set up 4547 service centres at every Union level (the lowest tier of Local Government) which is known as Union Digital Centre (UDC). ICT based UDCs provide time and cost effective some sorts of off-line and online door step services to the rural people. The broad objective of this study is to make an e-government framework at the local government level in Bangladesh by providing e-services through UDC. The specific objectives are: To find out the role of UDC in public service delivery at the local government level in Bangladesh; and to know the effectiveness of UDC in promoting e-government by delivering e-services to the people. This study has attempted a qualitative research approach to obtain its objectives.*

**Keywords:** E-Governance, E-Service Service Delivery, UDC framework, Bangladesh

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## 1. INTRODUCTION

### 1.1 Background of the Study

Digital Bangladesh is one of the nation's dreams, and so special emphasis is given on the application of digital technologies to implement Vision 2021, which we commonly call Digital Bangladesh. Information and communication technology (ICT) has brought this dream true by being an integral part of governmental activities. Although, the developed nations initiated the ICT move of governmental initiatives, today, the rest of the world nations have begun to use ICT on a day-to-day business. In the perspective of technological revolution around the world, governments are accommodating innovative and necessary efforts to confirm desired changes in the area of public administration to keep pace with newer expectations of citizens. No government in the present world can avoid such changes. In this connection, ICTs are being considered as new tools for the governments to satisfy people by providing expected services. Realizing this fact, Bangladesh government has introduced ICT based Union Digital Centre (UDC) and web portals for all government offices at district and upazila levels to provide quicker and smoother services to the people for creating "Digital Bangladesh"<sup>[1]</sup>. Such use of ICT in governmental activities to provide citizens with effective and efficient services with reduced cost and in minimum time is termed as E-Governance<sup>2</sup>. However, introduction of e-governance does not only involve changing the systems, procedures, and processes of relevant services but also affects the ways and relationships in which citizens and business community deals with government organizations.

The ultimate objective is to bring citizens under the whole e-government system. ICT based UDCs are the main actors in achieving this purpose. Local government of Bangladesh is of two types; 1. Urban Local Government and 2. Rural Local Government. Urban local government has two types: a) City corporation and b) Municipality (Paurosava) corporation. On the other hand, rural local government has three types: a) ZillaParishad (District Council) b) Upazila Parishad and c) Union Parishad. In Bangladesh more than 70% of people live and work in rural areas and typically have to travel long distances to access government information and services paying higher costs, spending longer times and involving considerable hassle. In order to reach the doorsteps of rural people, government has taken the initiative to establish one-stop information and service delivery outlets known as Union Digital Centres (UDC) in all union councils across the country since 2010. The prime aims of UDC efforts are: to increase interactions between government and the citizen for efficient and quality service delivery and to elevate greater public voice of governmental activities, to enhance transparency and accountability of the government, to enable poverty alleviation

initiatives, to create business opportunities for the private enterprises, and so forth by establishing e-government at the local government level.

These one-stop service centres are run by 1(one) male and 1(one) female entrepreneurs who work with elected local government representatives<sup>[4]</sup>. Using modern equipment such as-computers, scanners and printers connected with internet modem which are provided by the government, they render citizens nominal fee-based access to public services (land records, birth registration, telemedicine, life insurance, passport, various government allowances and overseas job application as well as application to various other government services) and private services (mobile financial services/mobile banking services, insurance, various types of computer and vocational training). In order to draw a conclusion, this study would like to proceed with relevant observations as pertinent to develop the e-government framework at the local government level.

## **1.2 Rationale of the Study**

Bangladesh is a developing country with a huge population in south Asia. Most of the people are uneducated, poor and live in rural areas. They do not have much scope for getting governmental services and information properly and in a timely fashion. People in rural areas have to go to different governmental offices several times for some important and essential basic services like-land records, various government allowances, land records & registration, passport services, driving licenses, mobile banking services, health related, agricultural information and so on which consumes huge time and money for the poor rural people. Sometimes, people do not have access to government offices easily. That is why; government wants to have easy access to public information and services by creating digital Bangladesh by 2021 which aims to bring under privileged people under the coverage of e-services. In this regard, the present government has already set up one stop service centre at Union level which is known as Union Digital Centre (UDC) for the purpose of improving the accessibility to government services. It is connected with a central server and all other government officials' portals. ICT based UDC services are time and cost effective, reliable and smooth which gives rural people easy access to accurate and latest government services. So, successful implementation of UDCs can play an important and the vital role to promote the framework of e-government at the local government level in Bangladesh.

## **1.3 Objectives of the Study**

The specific objectives of the study are as follows:

- To find out the role of UDC in public service delivery at the local government level in Bangladesh;

- To know the effectiveness of UDC in promoting e-government by delivering e-services to the people; and
- To suggest a framework for e-Government.

## 2. E-GOVERNMENT, E-SERVICE, ICT, UDC AND SERVICE DELIVERY

### 2.1 Introduction

E-government is one of the most important concepts in the present world for e-service delivery. Already, some nations have proceeded ahead with e-government activities. Some other countries are well prepared to start the journey. Countries like Bangladesh have just started moving. Therefore, in the Bangladesh context, the proposed field remains untouched to be explored into, where a substantial gap exists. Very few government, business or technical reports, documents or articles are presently available on e-services in Bangladesh. A small number of studies have been reviewed throughout the world regarding community based service centres. Among them, only a few studies have been found about service centre (like- UDC) which provides e-services to the rural people in Bangladesh. The concept of e-government is very new and innovative in Bangladesh. The available relevant literature that has been reviewed is as below:

**E-services:** Electronic Service or E-services is one of the key words in this thesis. It is the provision of services via the Internet. It is the use of electronic technology by an organization to provide services to its customers.

Wilson (1998) mentioned that “an e-service is an activity or series of activities that takes place during the interaction between a provider and a customer through an electronic channel“.

UDC is a practical and useful instrument to local governments which are willing to deliver their e-services by making use of the digital infrastructure. As delivering services to citizens is one of the most important responsibilities of local governments and involves information exchange, it easily fits the profile of a main target field in terms of e-governance. Developing an effective and efficient digital infrastructure for the delivery of e-services involves a lot of time, effort and commitment. 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 30 per cent reduction in corruption in the service sector due to the introduction of e-services (TIB, 2012). UDC is to be set up for the purpose of providing e-services to rural people in Bangladesh. Through the e-service delivery, the UDC will promote the framework of e-government in rural local government level in Bangladesh. In this regard, e-services can play a vital role. **Saroar Ahmed Saleheen (2015)** “Public Service Delivery- Role of Union Digital Centre (UDC)

and Impact on Improving Governance and Development: A Case Study of Narayanganj District” shows that UDC has great impact on improving governance and development by delivering e-services to the rural people. It has been seen in recent times that most of the countries in the world are making ICT based e-service delivery initiatives. As a result, ordinary people are getting smooth and faster services from government and private sectors. Due to implementation of e-service delivery system in developed countries, the rate of corruption is very low while on the other hand the rate of growth is very high which inspired other developing countries like Bangladesh to adopt ICT based e-service delivery system. Some challenges like budget and finance, top-level management initiatives, technical problems like integration and interoperability, inadequate power supply, lack of internet access, lack of regulations are the major barriers for development of e-services in Bangladesh.

**E-government:** Electronic Government or e-government is a very big concept. The impact of UDC in preparing the framework of e-government at the local government level is the main concern of this thesis. E-government is the effective and efficient use of modern information and communication technologies (ICTs) such as Internet, LANs and mobile phones to improve the activities of public sector organizations with a view to establish good and transparent governance and to promote development of any country.

According to Heeks (2001), e-government is the application of Information and Communications Technology to the government processes to bring simple, moral, accountable, responsive and transparent (SMART) governance.

E-government will manage the way that citizens deal with the government and with each other, allow citizens to communicate with the government, participate in government policy making and planning, and to communicate with each other. It assumed that work flow in government and semi-government offices will be fully integrated with ICTs through re-engineering of government’s business process. By the blessings of e-government, people will have access to all the government facilities round the clock. That means all interaction with the government will be done through one counter 24 hours a day, 7 days a week without physically waiting.

Mohammad Jahangir Alam author of “E-Governance in Bangladesh: Present Problems and Possible Suggestions for Future Development” says that to make transparent and effective government work, to increase government efficiency, accountability and to improve the service delivery and participating the public in all aspects of government activities, e-Governance is obligatory. According to the writer establishment of e-governance in a country it requires- automation in all sectors, ICT infrastructure, proper training, internet connection, strong database, public awareness.

The final objective of e-Government is to create good governance. Shahnila Monjur in her thesis titled “e-governance initiative in a developing country: the case of Bangladesh” says that in this new era of ICT, the role of government is changing rapidly. To bring overall effective improvement in administration, government has changed their patterns by implementing ICT in different sectors of a country and adopting the new concept of e-governance. Most of the developing countries still depend on paper-based service delivery due to a lack of ICT infrastructure and therefore absence of e-governance. Bangladesh can achieve a more citizen friendly service through implementing e-governance and UDC can play an important role in this regard. E-governance is the most attractive, interesting, useful people-oriented and growing phenomenon and has become one of the pivotal parts of administrative reform to bring good governance in any country (Moon, 2002).

**ICT:** This is the age of Information and Communication Technology (ICT). ICT plays an important role in all sorts of development. In particular, e-government and e-service delivery are ICT based concepts. The Article “Information Infrastructure in Bangladesh: Need for a National Approach” by Md. Nasiruddin discusses new structure and opportunities of information and technology caused by the rapidly changing ICT. To enhance accessibility and usefulness of information and to assure a country's competitiveness internationally, the writer recommends that it immediately needs to improve the ICT infrastructure.

Hassan in his “E-Governance and E-Government in Bangladesh: Performance, Challenges and Remedies” says that it is the time for developing countries to turn around for changing their age as well as lifestyles with ICT. Only the use of ICT in the government functioning is expected to bring a radical change in this field. According to the writer - ICT is a part and parcel of our daily life. Everything is connected with ICT. So, without ICT we cannot think about our present situation.

**Effectiveness of Union Parishad:** Union Parishad is the lowest tier which is responsible for some development, quasi-judicial, administrative and service oriented functions in the rural union level. It is run by local elected representative under local government division. Union Parishads are formed under the Local Government (Union Parishads) Act, 2009 (Updated). A Union Parishad is the body primarily responsible for providing public services to their designated entire community.

According to Rahman showed in his report “Effectiveness of E-governance System to improve the Union Parishad’s Activities” that how the Union Digital Centre is working to make the UP more effective by giving prompt and swift services to the rural people at Union level. The writer showed the example of Japanese local government functions. According to the writer -this is also helpful

to compare our local government system and share some good practices to minimize our problems in the light of Japan's experience.

The present government is committed to establish strong local government institutions at various levels through active participation of the elected representatives in the administration as well as development activities. In this connection, the government has set up 4547 digital centres (known as UDC) in all UP across the country to provide doorstep services to the rural people. Many kinds of public services and important information are provided from this one-stop service hub. UDC works to promote the e-government in local union level and improving the service quality. The UP could play a catalytic role in local level development if it could overcome the existing service delivery systems, administrative and financial limitations and the shortage of technical manpower through the help of UDC. According to the writer, to make the union parishad an effective one, it needs to employ sufficient trained and skilled manpower, sufficient financial capacity, proper IT infrastructure, administrative capability and above all motivated elected representative to lead the process.

**Bangladesh Competitiveness:** In order to achieve digitization, Bangladesh is trying to improve its efficiency by adopting modern technologies in private and public sectors. In this regard, the present government has established web portals for all offices, computer council, Access to Information (A2I) and UDCs in all UP for the purpose of making digital Bangladesh by 2021.

The government also established IT parks in various places across the country. For skilled and trained Human Resources, the government has been continuing training program for its employees at various levels. E-filing, digital signature, district e-services centre and other digital services (e-TIN, e-passport service, e-tendering, e-registration, e-driving license, e-voter ID card, e-birth registration and so on) have already been introduced in different government departments. On the other hand, the private sector has also been flourishing day by day in our country. The government is also providing various facilities to them for proper exploration.

The government has exempted all taxes on computers and accessories to promote Information and Communication Technology (ICT) (SICT, 2008). As result, our private telecommunication sector and banking sector are fully automated due to facilities provided by the government. The government has also been promoting call centres to develop a business process outsourcing industry (BTRC, 2009). National ICT Policy 2002 has been revised and replaced by national ICT Policy 2009 with notable changes in the methodological framework in the policy document including planned action items. The ICT Policy 2009 also reflects the government's vision to establish a "*Digital Bangladesh*" by the year 2021.

## 2.2 Services of UDC

UDC is a one stop service centre which provides various public and private services to the rural people. It is an ICT based service oriented hub which works at the Union level, the lowest tier of local government in Bangladesh. The present government is trying to make it a Centre of Excellence by connecting it to various government and private offices and engaging citizens. People will get various kinds of necessary information and services from UDC. To make it more successful, A2I of the ICT division has already made a website named-E-Totthokosh ([www.infokosh.bangladesh.gov.bd](http://www.infokosh.bangladesh.gov.bd)) which is a combination of all sorts of national information and services.

The following services and information are provided through UDC such as:

1. **Birth Registration:** It is one of the important tasks of UDC services. Birth certificate is now mandatory for getting any kinds of government facilities in Bangladesh. Rate of success of birth registration in rural areas through UDC is more than 90%.
2. **Government Information Services:** This is another important services provided by the UDC. Information relating health, agriculture, market, weather, VGF, VGD, public examination and so on is provided to the rural people easily through the UDC.
3. **Land Records:** Land records and other documents are also provided by the UDC at the rural level. It saves time and costs as well. The rate of success of this service is not so high. More than 80% rural people using this facility.
4. **Mobile Banking:** A limited number of mobile banking services by the UDCs with collaboration private banks are available. This is also very popular services for the rural people. Only less than 10% people in rural area using this facilities.
5. **Employment and Job related services:** Many job seekers get information from UDCs and also they can fill up forms from this point as well. This service is popular for rural unemployed people. Only small number those who are educated using this service.
6. **Educational Services:** UDC also provides some important educational services to students. Admission test information, admission form download and so on are provided from local UDCs at rural level.
7. **Off-line Services:** Various off-line services like; computer printing, computer writing, photocopying, scanning, laminating and so on are provided by UDCs at the local rural level in Bangladesh.
8. **Death and Inheritance Certificate:** Death and inheritance certificate are issued by the local UP chairman. These two are very important for property distribution and registration compelled by the government. These two certificates are provided by the UDCs. More than 85% people

avail this service from UDCs.

9. **Citizenship Certificate:** This is an important document for every citizen in Bangladesh. For all sorts of purposes, people requires citizenship certificate which is issued by the local UP chairman and distributed by the UDCs. 100% people avail this facility from local UDCs.
10. **Miscellaneous Information and Services:** Many other miscellaneous private and public information and services are also provided by UDCs at local areas in Bangladesh. Information and services like; various government allowances, insurance services, education, law & human rights, tourism, environment & disaster management, science & technology, industry & commerce are also provided from UDC.

### 2.3 Research Gap

E-government is an on-going process and can be interpreted from different points of view. Huge numbers of studies about e-governance have been carried out from different points of view in the world context. Only few are related to Bangladesh. So far, I have found and studied about e-government of Bangladesh; most are not from the public administrative perspective and are not related to UDC. Most of the studies are related to challenges, initiatives, performance and status of e-government in Bangladesh. I have found no study which is related to my current topic. Only a few of the studies possess direct reference to the area of e-government by providing some important aspects of the field.

However, of the research that I reviewed for this study's purpose, there is no similarity with my current study in terms of scope, objective, nature and study area.

### 3. RESEARCH METHODOLOGY

Research methodology is an important part of any research. It is the process of collecting data and different information for reaching the objectives of the research. It primarily focuses on the methods, tools and techniques of data collection and uses software to analyze those collected data. Different methods are used to collect data from respondents such as; surveys, questionnaires, face to face interviews and group discussions. I prepared questionnaires and collected data by face to face interviews with general people and UDC officials. This study also incorporates both qualitative and quantitative research approaches which focus on asking questions. After collecting data, I use MS Excel for analyzing and interpreting collected data.

### 3.1 Selection of the Study Area

Five Upazilas of Narayanganj, Narsindgi, Gazipur, Sylhet and Khulna districts were selected for collecting data for the purpose of this study. It is worth mentioning that those Upazilas are one of the pioneer areas in terms of UDC implementation and thus it was the right decision to choose those areas for this thesis. I visited around 30 UDCs in those five upazilas during the data collection period from February 15, 2017 to March 30, 2017.

### 3.2 Research Methods

In order to draw some inferences on the findings, it is necessary to analyze the collected data quantitatively. So, a combination of qualitative and quantitative approach is applied here to achieve the objectives of this study. In this research, the following methods are used:

- I. Content Analysis
- II. Interview (Face-to-Face Interview)
- III. Questionnaire Survey

**Content Analysis:** Content Analysis includes collecting data from all relevant books, documents, articles, journals, UN report, published and unpublished research works and online articles that are found to be available.

**Interview:** For the purpose of this study, interviews were conducted in person i.e. face- to-face interviews were conducted by the researcher himself. The service seekers are the general people of the locality and their demand for services are simple and plain. The perception of the researcher is that one should deal with proper care in collecting information from them. That is why the interview method with closed ended questionnaire is suitable for this purpose. The main objective of this method was to collect information about the perception of the citizens or beneficiaries regarding the role of UDC in promoting e-governance at the local government level.

**Questionnaire Survey:** Survey with questionnaire is an effective method of collecting primary data. The semi-structured questionnaire survey method is conducted in this research for the purpose of collecting primary data about the role of UDC to promote the e-governance framework at the local government level.

### 3.3 Sources of Data and Sampling

The data are collected for this study from both primary and secondary sources. Secondary data are gathered from websites, books, newspaper reports, previous research work, seminar papers and reports.

Primary data are collected through interview with the prescribed questionnaires. The government officials and UDC operators are brought under

the questionnaire survey and the citizen/beneficiaries are brought under the interview method for collecting primary data. These personnel were brought under the random sampling for the purpose of structured questionnaire survey.

### **3.4 Sample Size**

A total of 109 (One Hundred and Nine) respondents have been selected from 30 (thirty) UDCs of five different Upazilas under five different districts in Bangladesh. The composition of the respondents is as follows (Table-5.1):

**Table 3.1:** Composition of Data Collection Areas and Respondents

<i>Research Areas</i>	<i>Categories of Respondents</i>	<i>No of Respondents</i>
Sonargaon Upazila of Narayanganj district, Palash Upazila of Narsingdi district, Sreepur Upazila of Gazipur district, Zokiganj Upazila of Sylhet district and Dumuria Upazila of Khulna district in Bangladesh.	UDC service receivers (General People), UDC entrepreneurs, UP officials and Government Officials	<b>109</b>

### 3.5 Data Collection Technique

For this research, different types of data collection methods were conducted to collect the primary data. The primary data were collected by using structured questionnaire (Appendix A) from key respondents and asking a set of questions (Appendix B) from service provider's interview. Data collection was done through direct interviews with respondents of various UDCs under five different districts with the help of Upazila administration. Most of respondents from service seekers were uneducated or half educated. In this regard, I had to take help from UDC entrepreneurs/officials. Sometimes, I had to use some motivational techniques to get feedback from respondents.

## 4. ANALYSIS, FINDINGS AND DISCUSSION

This chapter presents the results of research findings derived from the primary data analysis by using quantitative and qualitative methods. In this chapter data are presented graphically (i.e. Bar chart, Pie Chart) and systematically by using MS Excel which shed light on research objectives and research questions. The aim of this chapter is to present the empirical results of the graphical analysis derived from content analysis and to discuss the results obtained from the data source.

### 4.1 Data Obtained from Beneficiaries: Findings and Analysis

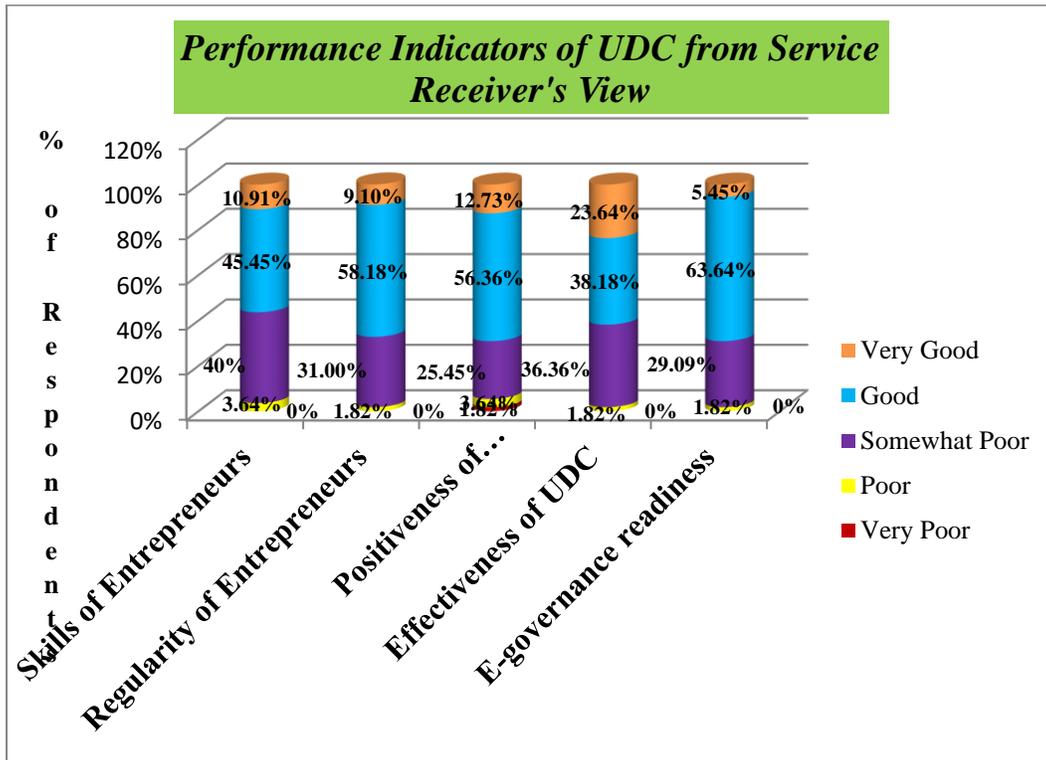
This study was conducted from February 15, 2017 to March 8, 2017 in Bangladesh. I have collected these data from 55 respondents (beneficiaries) from 20 different UDCs from 5 (five) different Upazilas (Sub-district) of different

districts in Bangladesh. For the purpose of collecting data from respondents, I prepared a questionnaire with the approval of my supervisor which consists of two parts; one is a close ended questionnaire and another one is an open ended questionnaire.

**4.1.1 Performance Indicators of UDC from Service Receivers Point of View**

The effectiveness and performance of Union Digital Centre (UDC) is measured and analyzed based on the five principles of e-service delivery indicators. These are the most important indicators which need to be considered for evaluation of the successfulness of UDC.

In this step of analysis, the performance of UDC has been analyzed on the basis of five principles of e-service delivery indicators. Entrepreneurs are key persons of UDC who play a vital role for disseminating services and also for the effectiveness of UDC in terms of e-service delivery. The study found the assessment of skills of UDC entrepreneurs by the respondents that are 10.91% very good, 45.45% good, 40% somewhat poor and less than 5% said poor or very poor.



**Figure 4.1:** Performance Indicators of UDC

In the case of entrepreneurs, regular presence in UDC is also important for smooth functioning of UDCs. The study revealed that more than 67% of respondents said their regularity in UDC is very good or good but more than 32% said somewhat poor or poor or very poor which is not desired at all for smooth running of UDCs. UDC entrepreneurs' job is not salaried by the government, rather it is like a private-public partnership job, where entrepreneurs earned by selling services to the people with nominal costs. Government only provides logistics, training and other infrastructural facilities to the UDC for rendering services to the rural people. So, they have no fixed income. As a result, most of UDC entrepreneurs are not motivated to provide services and sometimes they left the job for better positions which ensure fixed earning for them.

Entrepreneur's positivity is also an important indicator for effectiveness of UDC. The study showed that 12.73% of respondents said very good, 56.36% said good, 25.45% said somewhat poor and less than 6% said poor or very poor attitude of entrepreneurs towards service receivers when they ask for e-services from UDCs. In rendering services to the clients, all sorts of negativity should be avoided. So, proper motivational programs and other supportive activities should be taken for ensuring a positive atmosphere in rendering services.

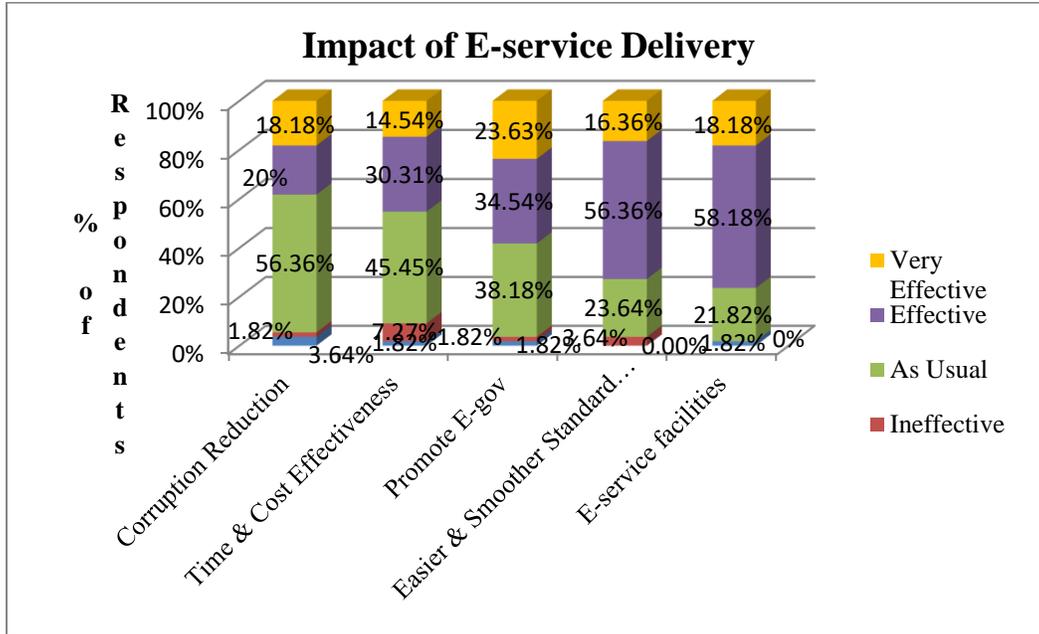
Finally, electronics governance readiness is another important indicator for excellent performance of UDC though it depends on many factors related to e-governance. In this case, the study revealed that, 5.45% respondents said very good, 63.64% said good, 29.09% said somewhat poor and 1.82% said poor. It means, e-governance readiness is in a sound position to promote the framework of e-government at the local government level in Bangladesh. Though it has not been completed yet, different government agencies are still working on digitization in different sectors. For example; construction of ICT park, e-services in different government organizations, e-filing activities and expansion of businesses in ICT sector.

#### ***4.1.2 Impacts of E-service Delivery***

UDC is one of the important innovations of the present government which provides one-stop door step services at the rural level in Bangladesh. Before introducing UDC, people in rural areas had no scope to get online based e-services. E-service delivery by UDC has a great impact on establishing e-government at the local government level. To measure the impact of e-service delivery of UDC's, we have to analyze the following indicators presented in the bar chart (figure 4.2) below.

During interviews, respondents who are experienced with UDC activities were requested to express their opinion regarding the impact of e-services delivery by UDC on the above-mentioned variables. Proper e-service delivery has some impact. Reduction of corruption is one of them. By ensuring proper and

smooth e-services, corruption can be lessening to a sufficient extent.



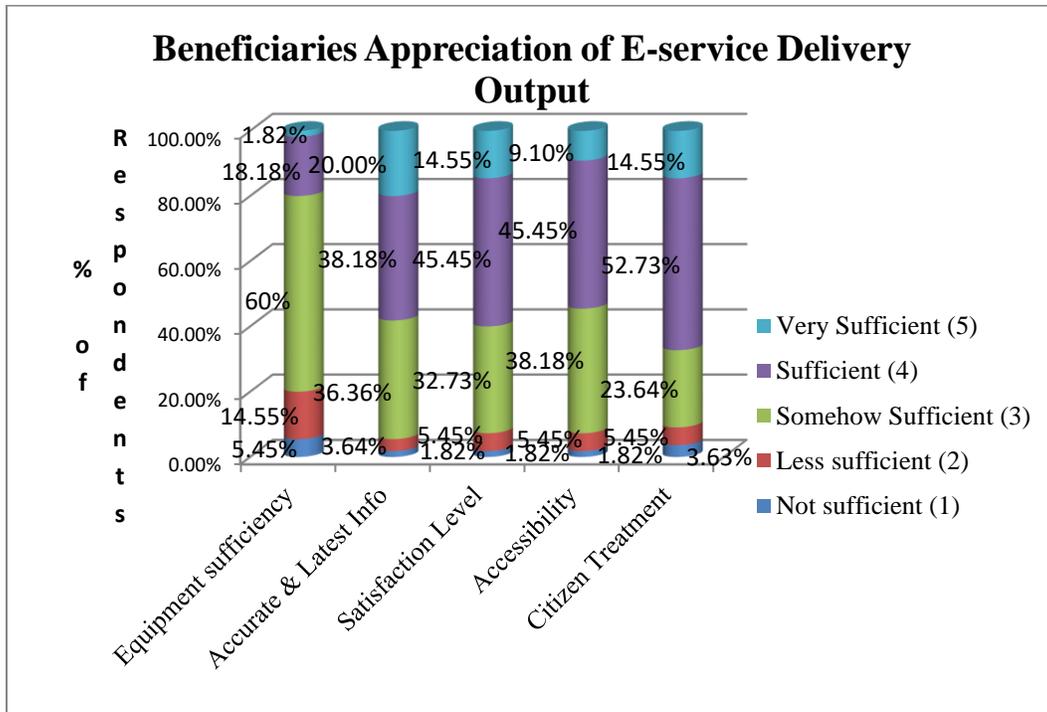
**Figure 4.2:** Impact of e-service delivery

The study revealed that 18.18% of respondents expressed their opinion as very effective, 20% as Effective, 56.36% As usual and very few said ineffective and not effective. Time and cost is another important indicator for getting the desired services. In this case, 14.54% are very effective, 30.31% are effective, 45.45% are as usual and less than 10% are ineffective and not effective. The study found that 23.63% replied very effective, 34.54% replied effective, 38.18% replied as usual and very low percentage replied ineffective or not effective. By analysing the responses, we found that more than 50% replied positively. In case of life standard indicator, the study found that 16.36% is very effective, 56.36% are effective, 23.642% are as usual and less than 5% are ineffective or not effective. On the other hand, e-service facilities by UDC, the study found- 18.18% very effective, 58.18% effective, 21.82% as usual and less than 5% are less or not effective.

**4.1.3 Beneficiaries Appreciation of E-service Delivery Output: (Question -4)**

Analyzing figure 4.3, the study found that 60% of respondents said; equipment is somewhat sufficient under equipment sufficiency indicator of e-service delivery output. That means equipment for rendering service to the people is not sufficient. In the case of accurate and latest information, 20.00% respondents said very sufficient, 38.18% said sufficient, 36.36% are somewhat sufficient, 3.64% said

less sufficient and only 1.82% said not sufficient. Though it sounds good, it should be increased more. In the case of satisfaction level, only 14.55% revealed very sufficient, 45.45% revealed sufficient, 32.73% revealed somewhat sufficient and 5.45% showed less sufficient. As satisfaction level sufficiency is less than 50%, so it has to be increased by improving service according to customer satisfaction.



**Figure 4.3:** Beneficiaries Appreciation of E-service delivery output

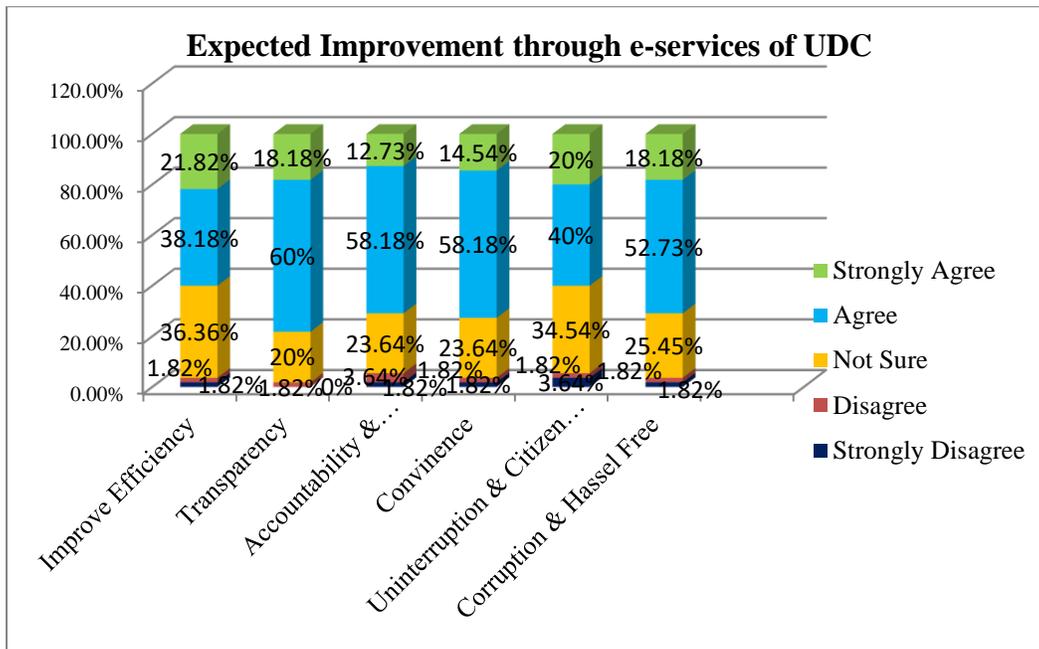
Warm and easy access to UDC by local rural people for e-services is an important principle attribute for measuring e-service delivery output. The study revealed people’s perception about the extent of UDC accessibility to e-services that 9.10% are very sufficient, 45.45% are sufficient and 38.18% are somewhat sufficient. In citizen treatment indicator, it revealed that 14.55% are very sufficient, 52.73% are sufficient, 23.64% are somewhat sufficient and about 10% are less or not sufficient.

**4.1.4 Expected Improvements of Government Services through e-service delivery by UDC**

In this step of analysis, the outcome of e-governance service was analyzed based on the six principles of the e-service delivery indicators by UDC. In the case of

“Improve Efficiency” indicator, the study found 21.82% of respondents strongly agree, 38.18% agree, 36.36% are not sure about and less than 5% disagree or strongly disagree.

Transparency is another important indicator for e-governance. In this case, the study revealed-18.18% strongly agree, 60% agree, 20% are not sure and very few people disagree or strongly disagree. E-governance ensures accountability and responsiveness of service providers. In this case, the study revealed respondents opinion-12.73% strongly agree, 58.18% agree, 23.64% are not sure and less than 10% disagree or strongly disagree.



**Figure 4.4:** Expected Improvements of Govt. Services through UDC services

In the case of service convenience, a majority of respondents expressed their positive opinion. Uninterruption and citizen centricity are the two most important indicators for e-governance which plays a great role in popularity. In this case the study revealed 20% strongly agree, 40% agree, 34.54% are not sure and very few disagree or strongly disagree to these indicators.

Corruption and hassle free are the most important variables which is ensured by implementing UDC’s e-service delivery activities. The study found that more than 70% of people strongly agree or agree and less than 30% are confused (not sure) or are in the disagree category.

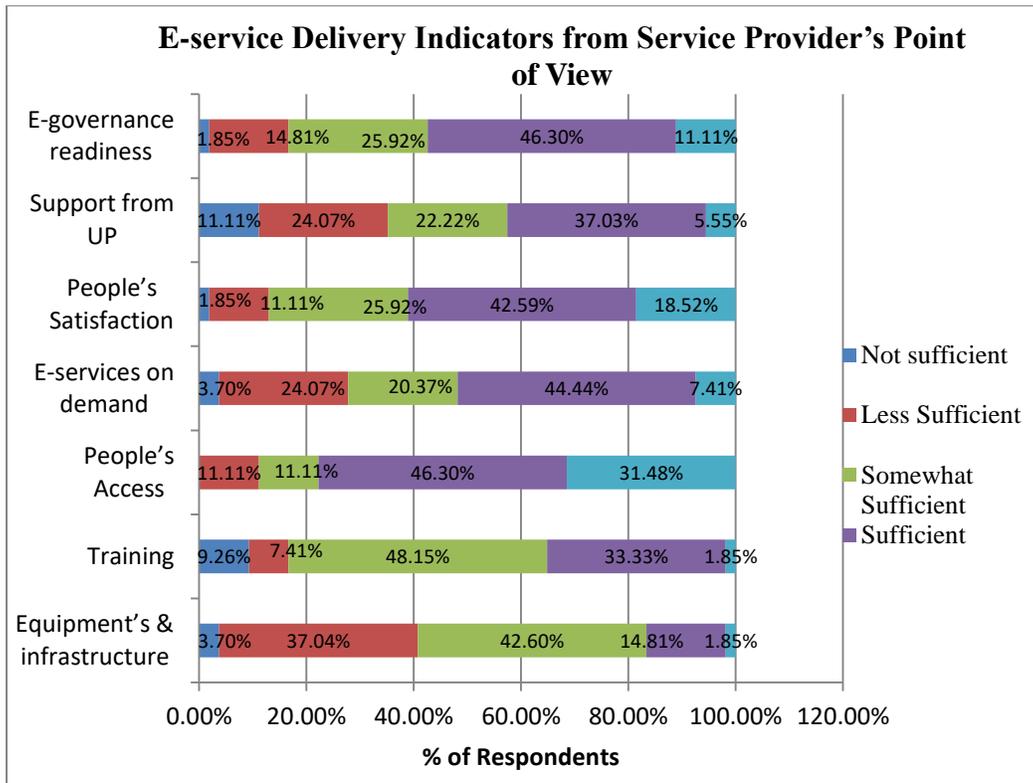
## **4.2 Data Obtained from Officials: Findings and Analysis**

The success of UDC depends on the combined activities of UDC entrepreneurs and officials of Union Parishad (UP) and local administration. Without proper support from UP and local administration, it is not possible to run the UDC successfully. Entrepreneurs, UP officials and local administration are playing a vital and key role for smooth functioning of UDCs in the regards to proper e-service delivery in rural Bangladesh.

### ***4.2.1 E-service Delivery Indicators from Service Provider's Point of View: (Question -1)***

In this step of analysis, service providers view were analyzed based on seven input and output variables of e-services service provided by UDC. The study found that 1.85% of respondents said very sufficient, 14.81% said sufficient, 42.60% said somewhat sufficient and more that 33% said less or not sufficient equipment and infrastrucutre are available in UDCs for delivering e-services.

Effective and efficient training are important parts to make someone skilled in a specific arena. The study revealed that less than 40% of respondents said sufficient or very sufficient and more than 60% of respondents said somewhat or less or not sufficient. In this regard, government should have proper initiative to ensure relevant training to all entrepreneurs engaged in rendering e-services.



**Figure 4.5:** E-service delivery indicators

People’s access to UDC is another important variable for measuring the success of UDCs. The study revealed that, more than 76% of respondents said people have very or sufficient access and less than 25% said somewhat or less or not sufficient. But it differs from clients point of views where they said it is less than 55% easy access facilities for service seekers to the UDCs. It must be kept in mind; access to UDCs must be easy, comfortable and friendly so that people are interested to avail services from them.

On demand service or customized service is important to make a success story. Though it is not common but it should be available to the rural people to gain their interest on UDCs. The study revealed the picture that are- 7.41% said very sufficient, 44.44% said sufficient, 20.37% said somewhat sufficient, 24.07% said less and 3.70% said not sufficient. This is really a frustratating scenario of having services from UDCs. It must be improved.

Success of UDCs depend on clients satisfaction. Without proper satisfaction, no business can gain ultimate success. In the above chart, the study found that only 18.52% of respondents said very sufficient, 42.59% said sufficient, 25.92 % said somewhat sufficient but more than 10% said less or not sufficient with present e-services provided by UDCs.

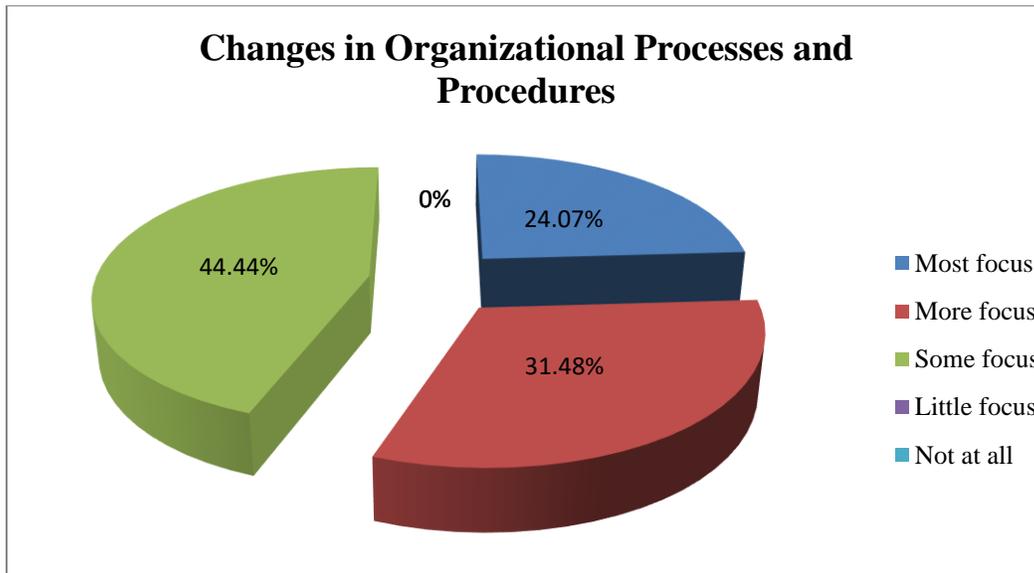
Support from Union Parishad is also important for UDCs to survive successfully. Without proper support many UDCs cannot run successfully. As UDCs are part of local government institutions, so their success mostly depends on the support they get from Union Parishad (UP) and its officials and representatives. This study found that less than 45% ( actual is 42.58%) are currently getting sufficient support from the UP which is alarming for the success and survival of UDCs. It should be more than 90% if it wants to be a successful service providing hub in rural areas.

According to the service providers point of view regarding e-governance readiness, the study revealed that 11.11% of respondents said very sufficient, 46.30% said sufficient and more than 40% said somewhat or less or not sufficient. To promote the electronics Government (e-government) in rural areas in Bangladesh, this indicator is the most important that should be given utmost effort to improve the situation. Without 100 % readiness, it is difficult to ensure successful implementation of e-government in local government level which will ensure good governance and government commitment to implement “Digital Bangladesh by 2021”.

#### ***4.2.2 E-government Initiatives through UDC Services***

##### *a) Change in Organizational Processes and Procedures*

The Government has taken many sector-wise initiatives for implementing e-government in Bangladesh. Enacting new ITC policy 2012, e-filing, e-government, access to information policy, right to information act 2009, digitization policy, computerization in government offices, skilled human resources, ICT training, ICT infrastructure building has been taken by the present government for the implementation of Digital Bangladesh. The study revealed that 24.07% of respondents from service providers said that government has given the most focus on changing organizational processes and procedures.

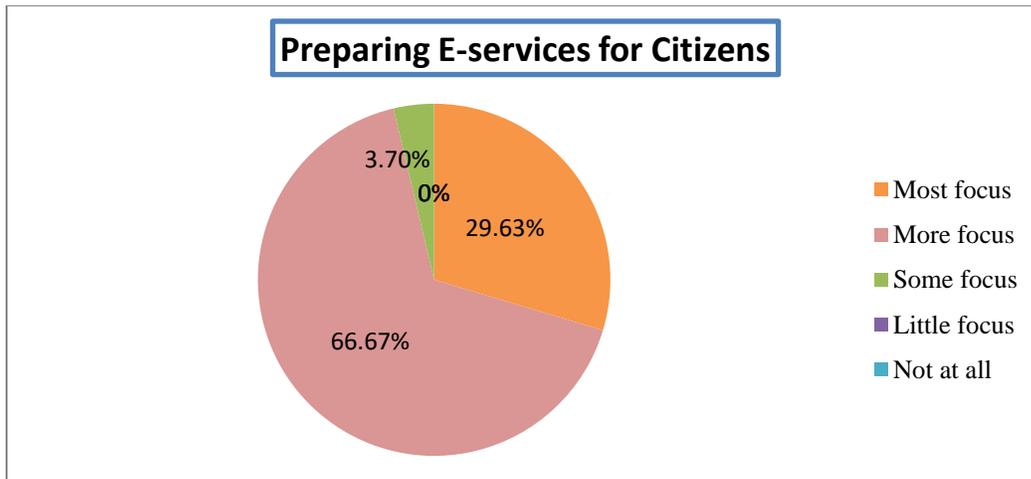


**Figure 4.6:** Change in Organizational Processes & Procedures

31.48% said more focus and 44.44% said some focus was given on this variables for e-governance initiatives at the local government level in Bangladesh. It is really a good sign for beginners. If it is possible to continue at this pace, it would be possible to implement e-governance in Bangladesh very soon.

*b) Preparing E-services for Citizens*

E-service is the highest priority issue for the government to ensure peoples satisfaction and implementing digital Bangladesh as well. Before these initiatives, all government offices in Bangladesh provided manual (i.e. paper based) services to the citizens which took too much time. Sometimes, people did not even get their desired services. But after the digitization process which started in 2009, people are getting e-services along with some manual services. E-filing, e-registration, digital smart card, e-tendering, digital passport, chip based digital driving licence and e-services from UDCs are some examples of electronics services that the present government stated to provide to the people from all sorts of government offices in Bangladesh. Not only in the government sector but the process also started in the private sector. Our banking, telecommunication sector, stock exchange and some other private organizations are fully automated and provide e-services due to e-service policy taken by the government.



**Figure 4.7:** Preparing E-services for Citizens

In this regard, the study found that 29.63% of respondents said most focus, 66.67% said more focus and only 3.70% said some focus regarding e-services for citizens which will ultimately be focused on e-governance implementation in Bangladesh.

## 5. RECOMMENDATIONS AND CONCLUSION

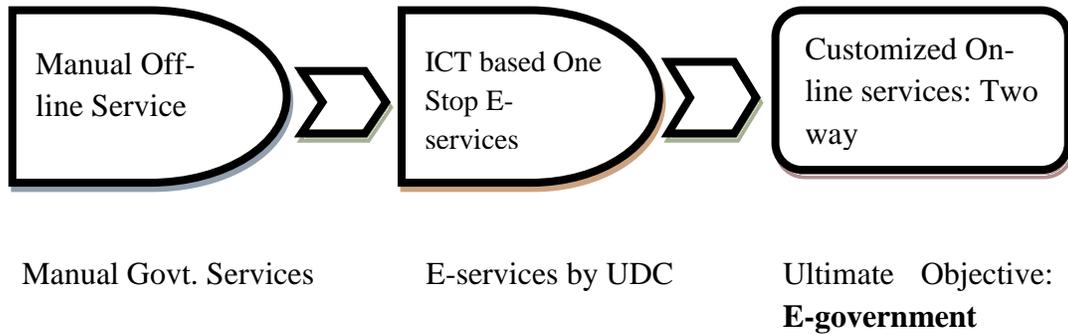
### 5.1 Introduction:

Union Digital Centre (UDC) is a unique and innovative initiative of the present government in Bangladesh to provide door step electronics services to the rural people. This is a service providing hub where some sorts of government services and information are available for the general people in rural areas with minimum time and costs. This service center is ICT based which started its activities in 2009 under local government division and Access to Information (A2I) of Prime Minister's Office (PMO) and financed by the UNDP and the Bangladesh Government. This is one of the priority areas of the government to bring the people under one umbrella and minimize the gap between citizens and government in the case of providing government services and information electronically. The strategic objective of UDCs is to simplify the governance to all the stakeholders (Citizens, government and Business) by implementing the framework of e-governance through e-service delivery. The broad objective of this study is to find out the role of UDC in promoting e-governance at the local government level in Bangladesh. With the consequence of the broad objectives, two other objectives have been identified accordingly. The study revealed that e-services need to be of high quality, on demand, easily accessible, time & cost effective, accountable, hassle and corruption free, citizen centric, transparent,

convenient and efficiently provided by UDCs to have a positive impact on people’s satisfaction and the government provides initiative to lead e-governance at the local government level. Finally, the study showed that UDC can promote the framework of e-governance in rural Bangladesh. In this study, it has been observed that beneficiaries have begun to realize the importance of UDC which has opened a new window for the rural people in Bangladesh. It empowered rural communities by providing livelihood information on subjects like agriculture, education, health service, land related, mobile banking and so forth. UDC is acting as a one-stop service providing hub which provides door step e-services. So, we can easily say that UDC is the key to implement e-government in rural Bangladesh.

**5.2 Proposed Diagram of E-service Delivery for E-government:**

According to our constitution, it is a fundamental right of people to have information and services from the state. Besides, today’s world economy is mostly dependent on information and communication technology. It is driven by knowledge and technology and fuelled by information.



**Figure 5.1:** Proposed diagram of e-service delivery by UDC

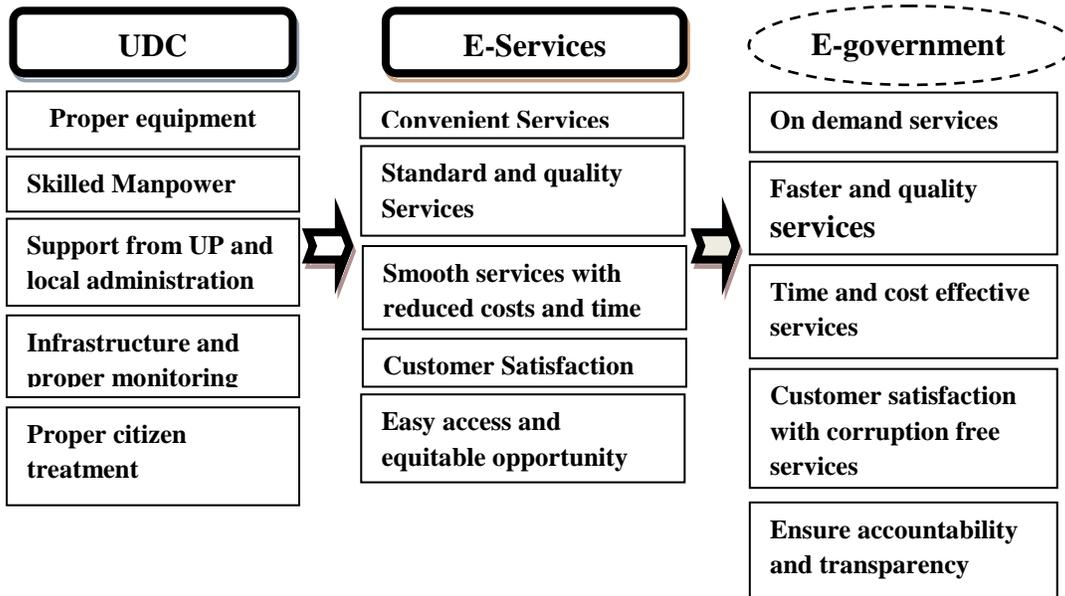
E-services delivery can ensure proper services in due time at minimum costs. So, e-services are vital for the survival of a modern government and electronic governance. Salam (2013) argued that access to government information by citizens and organizations is, therefore, a fundamental ingredient in effective government. E-service delivery thus shows a government’s willingness to provide services to its citizens in the quickest and best possible way. Traditionally, these services were delivered face to face by visiting a public office. Of course, these types of services are not available in rural areas where transportation is poor, roads are inaccessible and governments’ offices are also not available (Salam 2013). In this case, UDCs are the ‘e-Service delivery outlets’ which initiated a new era in information and service delivery for rural and marginalized people in Bangladesh are indispensable.

The figure (figure 8.1) shows how traditional offline manual services are converted to online based e-services by introducing UDCs in rural areas and the ultimate objective is to establish the framework of e-governance at the local government level through e-service delivery by the UDCs.

Salam (2012) argued that to ensure the e-governance, it needs more infrastructure and policy to enable co-operation and interaction among the government agencies and citizens. The government should pay more attention to the new technologies and their impact on organizations and organizations need to give more attention to further research on challenges and opportunities.

**5.3 Proposed Framework of E-government:**

E-government means the electronics form of government where all sorts of government services and information are provided electronically using computers and the Internet. This is the latest mode of proper service rendering system by a modern government which can ensure easy access of common people to government and commercial information and services. All developed countries run their governance electronically and reached the apex position of development. The success of the world economy is also dependent on the ICT- based governance system. E-governance is a channel through which the government interacts with its citizens (e-services), improves public service delivery and processes (e-administration) and builds external interactions (e-society). It creates win-win relationships where the work of the government is made easier by providing a public service at the disposal of s citizen (Alshehri and Drew, 2010).



**Figure 5.2:** Proposed Framework of E-government

In this process ICT plays a vital role in spreading e-government worldwide. In our country, the present government initiated the process of ICT -based service centres at the rural level which is known as “Union Digital Centre” or UDC.

#### **5.4 Conclusion**

ICT plays a vital role in developmental activities of a country in the present context. It is not possible to bring about a holistic development in all sectors ignoring ICT-based services. Having realized the fact, the present government of Bangladesh has taken the initiative of implementing e-services country-wise involving local government. For this purpose, the government has set up 4,547 UDCs in all Union Parishads across the country to have more access to government services and information by the people. The government places an unprecedented emphasis on revitalizing local government institutions at the rural level (around 4,547 Union Parishads) and at the sub-district level (Upazila Parishads). The LGIs are being re-designed to play an extremely critical role to serve as local delivery centers for information and e-services, thereby upholding the government’s commitment to get services to citizens’ doorsteps. But without proper management, infrastructure development and technical manpower for ICT systems in rural areas, it can never run efficiently. Still we are implementing some new techniques to manage the service delivery system of rural areas through E-governance systems and also trying to emplace some good practices from developed countries like Japan.

UDC is a citizen-centric service centre in a rural area which can ensure efficient and smooth e-service delivery system from single service point. From this service point, people in rural areas can get some sorts of government information easily, cheaply and smoothly. It provides the latest and accurate information and can ensure easy access for the rural people. UDC services improve transparency, accountability and responsiveness, which reduces corruption.

Adaptation of e-Government is a key for smart governance and making information technology (IT) relevant to ordinary citizens in Bangladesh where a large proportion of the population suffers from the digital divide. Now this is a big challenge for us to effectively run this e-Government system in rural areas. E-government is an on-going and evolutionary process. The growth and status of e-government varies from country to country regarding degree of their preparedness that relates to availability, accessibility and the nature and level of use of e-governance tools and in respect of preparing and providing services for the needs and ease of citizens.

E-governance is a better way of providing government services to the common citizen. However, it is the method by which governments govern their communities, nationally, regionally, and locally, forms an essential element in

determining the outcomes which contribute to the quality of life of those communities.

In this respect the study concludes, there are no straightforward ways of improving the e-government system at the local government level, rather many factors control the system, including the structure of the government. As ICT based UDC initiative meets all the requirements so, it can play a vital role to promote e-governance at the local government level by providing e-services. Further research in e-governance should discover UDC service by service analysis and what changes has brought after introducing UDCs in Bangladesh.

## **BIBLIOGRAPHY AND REFERENCES**

- Alam, Kabir M. Ashraf (2011). Capacity Building of Union Parishad: Proposals for Workforce Enhancement. The Journal of Local Government, National Institute of Local Government (NILG), Dhaka, Bangladesh.
- Alam, Mahbul (2007). E-Governance: Scope and Implementation Challenges in Bangladesh.
- Bhuiyan, M.S.H. Public Sector eService Development in Bangladesh: Status, Prospects and Challenges. Electronic Journal of e-Government Volume 9 Issue 1 2011, (pp15 - 29).
- Centre for Policy Dialogue (CPD). Bangladesh Facing the Challenges of Globalisation: A Review of Bangladesh's Development 2001. Dhaka: University Press Limited, Students Edition, 2002.
- GOB. (2009). National ICT Policy, Ministry of Science and Information & Communication Technology.
- GOB. (2014). Bangladesh Bureau of Statistics. Report of the Household Income and Expenditure, Survey 2010. Dhaka: Ministry of Planning.
- Government of Bangladesh (2002). National Information and Communication Technology (ICT) Policy (October: 2002), Ministry of Science and Information & Communication Technology, Government of the People's Republic of Bangladesh.
- Government of S. Korea (2006). E-Government for participation and inclusion in Korea, E-government headquarters, MOGHA, Republic of Korea.
- Government of Singapore (1989). Based on information from Singapore, Ministry of Communications and Information, Information Division, Singapore, 1989, 53–63.
- HakikurRahman.(2009). Framework of E-governance at Local Government Level. Bogota, Colombia November 2009.
- Haque, M. M. (2009). An Information System Planning Framework for E-Governance in Bangladesh (Unpublished report).

- Heeks, Richard. Understanding e-Governance for Development. Manchester: IDPM, University of Manchester, 2001. Available at: <http://www.idpm.man.ac.uk/idpm/igov11.htm>.
- Hoque, Shah Mohammad Sanaul. E-Governance in Bangladesh: Initiatives and Challenges. Ph.D Dissertation, Institute of Bangladesh Studies, Rajshahi University Rajshahi, Bangladesh, October, 2005.
- Md. Rizwan Hassan. E-Governance and E-Government in Bangladesh: Performance, Challenges and Remedies. Asian Journal of Applied Science and Engineering, Volume 2, No 2 (2013).
- Mohammad Imranur Rahman (Imran). (2014). Effectiveness of E-governance System to Improve the Union Parishad's Activities. National Institute of Local Government Ministry of Local Government, Rural Development and Cooperatives, GOB.
- Nasiruddin, Md. Information Infrastructure in Bangladesh: Need for a National Approach. Rajshahi University Studies. Part C, Vol. 9. Rajshahi: University of Rajshahi, 2001.
- National ICT Policy'2009. Ministry of Science and Information & Communication Technology. Government of Bangladesh.
- PMO (2010). Access to Information (A2I) Programme. Prime Minister's office, Government of Bangladesh [Online], Available: [www.a2i.pmo.gov.bd](http://www.a2i.pmo.gov.bd) [23 March 2010].
- Rowley, J. (2006). An analysis of the e-service literature: towards a research agenda. Journal of Internet Research. 16(3), 340-360, 339-359.
- Salam MA (2013), MA Dissertation, MAGD, Institute of Governance Studies, BRAC University, Dhaka, Bangladesh.
- Saroar, A. S. (2015). Public Service Delivery: Role of UDC and Impact on Improving Governance and Development.
- Sharma, S. K., & Gupta, J. N. D. (2003, October–December). Building blocks of an e-government – a framework. Journal of Electronic Commerce in Organizations, 1(4), 1–15.
- UN. (2012). UN E-Government Survey 2012: E-Government for the People. Department of Economic & Social Affairs Division for Public Administration and Development Management, United Nations, New York.