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CONTENT

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Localization of the Sustainable Development Goals (SDGs): Perspective Gopalganj District

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Abstract

Localization of Sustainable Development Goals is crucial for achieving the targets of SDGs at the national level. 'Leave No One Behind' is the central and transformative promise of the Sustainable Development Goals. This study is conducted to develop the SDG localization model from the perspective of the Gopalganj district in Bangladesh. The localization dynamics of SDGs within the administrative framework of Bangladesh are elucidated, utilizing the Gopalganj district as a case study. The research further scrutinizes the disjunction between the National Prioritized Targets (NPTs) of SDGs and their attainment levels, both on a national scale and within the localized context of Gopalganj District. The analysis was conducted using secondary data gathered from various departments operating at the district level in the Gopalganj district. Additionally, primary data was collected through the 16 focus group discussions (FGD). The primary data was examined using content analysis methods. The analysis unveiled the interconnections among the national target, local achievement, the disparity between target and achievement, the stipulated time frame, and the alignment of the action plans within the Annual Performance Agreement (APA) of individual institutions and officers. If a district conducts a gap analysis comparing its current achievement level to the relevant SDG targets, links it to the annual performance agreement (APA) of local institutions, allocates the budget accordingly, monitors progress using locally generated data, and involves stakeholders, the results will be evident within the set timeframe. . Additionally, the study revealed that "leaving no one behind" is not feasible due to the fact that both the gap analysis and the action plan to close the gap are developed locally through a coordinated effort of local stakeholders. Gopalganj district has outperformed the national level in meeting specific SDG targets, including NPT 3 (Indicator 2.2.1), NPT 5 (Indicator 3.2.2), NPT 6 (Indicator 3.2.1), NPT 9 (4.1.1), and NPT 15 (Indicator 5.3.1) as indicated by the data. The district falls behind in certain SDGs, such as NPT 1 (Indicator 1.2.1), NPT 2 (Indicator 1.2.1), NPT 17 (Indicator 6.1.1), NPT 18 (Indicator 6.2.1), NPT 20 (Indicator 7.2.1), when compared to the national level. The SDG localization model suggest that these indicators need more effort from the implementing agencies and vice versa. Thus, this study proposed (Table 2 in the Appendix) an action plan with its reflection in the Annual Performance Agreement (APA). This research serves as a model for localizing SDGs, providing guidance for policymakers and district administrators to effectively implement the SDGs at the district level.

Keywords: SDG, Localization, Gopalganj District, National Prioritized Target (NPT), Gap Analysis, Action Plan, Annual Performance Agreement (APA).

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1. Introduction

The 2030 Agenda for Sustainable Development was approved on September 25, 2015, by the United Nations General Assembly. The heads of state and governments of 193 countries in the world, including Bangladesh, joined the United Nations to set 17 goals and its 169 targets and 248 indicators, known as the Sustainable Development Goals (SDGs), to free the world from poverty, protect the planet, and achieve peace and prosperity, the central and transformative promise of the Sustainable Development Goals (Klasen & Fleurbaey, 2019). The SDGs were formulated with a global outlook in mind. Therefore, it was crucial to either localize or alter the global goals and indicators to fit the specific circumstances of each nation or country. Localization, as defined by Patole (2018), involves integrating supranational policies into projects at the relevant subnational level to guarantee service delivery to the relevant population. Local and regional governments prioritize subnational planning and resource allocation in a particular sector through localization, taking into account subnational variances (Lucci, 2015). Bangladesh adopted the whole-of-society approach to implementing the SDGs. 'Localization of Sustainable Development Goals: The Bangladesh Model' introduced a strategy to implement the SDGs by selecting 39 indicators as national priorities and +1 as a local priority. Localization was defined as the local strategy for implementating and monitoring to achieve global target. Various stakeholders, including local residents, community leaders, influential individuals, business groups, cultural and social organizations, NGOs, media professionals, government officials, and non-governmental representatives, collaborated to identify the +1 indicator as the local prioritized issue (GIU, 2023). The Natore Model (Natore District Administration, 2018) also involved local stakeholders in the process of SDG localization.

The dream of the Father of the Nation of Bangladesh, Bangabandhu Sheikh Mujibur Rahman, was to free the people of this country from poverty and build a prosperous country. To materialize his incomplete dream, his daughter the visionary leader and Prime minister of Bangladesh adopted the 'inclusive development model' which contributed a lot to uplifting the living standards of marginalized people and attaining the SDG's goals. The SDGs have their roots in the Millennium Development Goals (MDGs), which were put into effect by the UN between 2000 and 2015 and for which Bangladesh received high accolades from the international world for its successes in reducing poverty, promoting gender equality, reducing child mortality, and improving maternal health (Ashraf et al., 2019). Climate change, peace, and justice were recently added as Sustainable Development Goals (SDGs), which align with Bangladesh's priorities as a developing country.

Bangladesh uses the required resources to carry out the SDGs. The Seventh Five Year Plan of Bangladesh (SFYP), "Accelerating Growth, Empowering Every Citizen" for the years 2016-2020, produced by the General Economics Division, Planning Commission, can be regarded as the blueprint for the early critical phase of SDGs implementation (Ashraf et al., 2019). The 8th Five-Year Plan's general framework is also an essential blueprint for fully implementing the SDGs. The implementation procedure involves all government ministries and departments. It is already halfway

past the SDGs to be achieved by 2030. Its development in Bangladesh, however, is encouraging. As a result, Sheikh Hasina, the Honorable Prime Minister of Bangladesh, received the SDG Progress Award during the UN session at the end of 2021 from the renowned Sustainable Development Solutions Network (SDSN).

The COVID outbreak, which began in December 2019, has completely upended the planet and impedes SDG achievement (Moyer et al., 2022). However, the swift actions taken by the government prevented the impact of COVID-19 from disrupting the ongoing efforts to reduce poverty in Bangladesh. Bangladesh's average GDP growth in FY 2020-21 remained stable at 6.4% (Vasagan, 2022). Bangladesh, like other countries worldwide, has been negatively affected by the increase in commodity prices due to the crisis between Russia and Ukraine. The challenges posed by global economic volatility and sustainability may hinder efforts to combat poverty and famine, promote peace, improve health and education, and achieve the SDGs. The importance of implementing the SDGs has increased owing to epidemics, conflicts, and climate change. There is no other way for the local administration, NGOs, civil society, and local government to actively commit to the worldwide SDG goals on schedule.

2. Rationality of the Study

Each district exhibits distinct requirements influenced by factors such as geographical location, population density, and environmental vulnerability, thereby rendering each district inherently unique. Consequently, a standardized core development approach may not be universally applicable. Tailored plans must be devised and implemented within specific districts to ensure comprehensive coverage and inclusivity in SDG implementation efforts. As evidenced by a study conducted in a Chinese province, disparate measures are imperative to promote the attainment of sustainable development goals across diverse regions (Gao et al., 2021).

The Father of the Nation was born and honored in the fortunate neighborhood of Gopalganj. It is a district of Dhaka division and 130 kilometers far from the capital city. Gopalganj Sadar Upazila, Kashiani Upazila, Kotalipara Upazila, Muksudpur Upazila, Tungipara Upazila are five Upazilas (sub-district) of Gopalganj. After the brutal murder of the father of the nation along with his family members in 1975, Gopalganj district was deprived for a long time of the desired development. As a result, the general population suffered greatly from poverty, lack of quality education, unemployment problems, etc. In this regard, the district has put in place a number of innovative initiatives, such as a virtual kitchen program for homemakers, a family card database, a CV bank, a rehabilitation center for beggars at Kotalipara, a driver's pool through a one-stop service, etc. However, during the course of action, it became apparent that identifying the gap between the local achievement of each NPT SDGs and the target itself is a necessary first step towards successfully implementing the SDGs. Additionally, a time-bound action plan that is completely specific to that district is required to close the gap within the allotted period for SDG implementation. That is why this study was conducted to determine the SDGs' achievements as well as gaps, suggest action plans, and create a model for achieving the SDGs' indicators that could be implemented locally (in the Gopalganj District).

3. Objectives of the Study

To identify the National Prioritized Targets (NPTs) in SDGs to be achieved locally.

To analyze the gap between the NPTs of SDGs and their achievement levels in Bangladesh, both nationally and at the local level, with a particular focus on the Gopalganj District..

To develop an SDG localization model for the district to achieve the National Prioritized Targets of SDGs within the stipulated time.

To propose an action plan for the specific district and to reflect the activities in the Annual Performance Agreement (APA) of district-level institutions and officers so that it can mitigate the gap between the target and achievement of all the SDGs within the timeframe.

4. Literature Review

SDG localization is essential to global problem-solving. The idea is to tailor SDG implementation to regional, city, or community contexts, priorities, and capacities. Numerous studies stressed the importance of SDG localization to improve sustainable development initiatives. Smith (2019) found that local communities shape SDG localization strategies and actions, requiring a bottom-up approach. Swamy et al. (2018) stressed the necessity of multi-stakeholder involvement to drive localized SDG action. Garcia et al. (2023) underlined the necessity of empowering municipalities and local authorities in SDG implementation. Their assertion posits that decentralized decision-making facilitates the precise targeting and contextualization of actions, thereby supporting SDG localization efforts. The scholarly discourse also acknowledges the formidable challenges inherent in localized strategy implementation. Zhang et al. (2021) delineated constraints such as resource constraints, institutional capacity limitations, and uneven distribution of benefits. SDG localization difficulties were also addressed in the following literature.

Benedek (2023) conducted a mixed-methods study that examined how Europe has received and implemented the UN's 17 Sustainable Development Goals (SDGs), focusing on regional spatial localization. The study shows that sustainability is spatially spread. Despite fewer financial risks, some rural communities fare worse than major cities and peri-urban villages in sustainability. The study recommended tailoring development techniques to regional challenges. Fox and Macleod (2023) used a mixed method to examine the problems, successes, and consequences of localizing the SDGs in Bristol, UK. According to the inquiry, geographic differences in the data made it impossible to obtain SDG-compliant municipal and sub-city figures. The study also revealed how resource constraints prevented medium and small cities from implementing the SDGs. The study also found that local authorities first feared getting involved with the SDGs would take too much time and money. The study showed that mapping the SDGs onto preexisting activities and locally specified targets can link local planning language with global development discourse.

Krantz and Gustafsson (2021) examined qualitatively how a Swedish municipal organization localized the SDGs. New directives and modifications after political elections, among other scenarios, hampered localization, according to researchers. Results also stressed the importance of localization characteristics, including clarity, anchoring, and coordination, allowing enough time to address agenda disagreements and emphasizing sustainability activities. Perry et al. (2021) investigated local SDG implementation in England using a qualitative study design. Due to uncertain data collection and insufficient resources, applying the SDGs to the local situation was difficult. The inquiry revealed local governments' challenges and the importance of data collection for SDG target and indicator reporting. Another key finding was that city regions lack a coherent evidence base for public policy performance evaluation. This makes it tougher for local authorities to make choices and assess SDG implementation.

Kamboyo et al. (2021) conducted a quantitative analysis of the determinants affecting SDG localization in Tharparkar Sindh. The results showed that legislative framework, decentralization, empowerment, participation, coordination, capacity building, and monitoring and evaluation favorably affect localizing SDGs. It emphasizes the need to localize SDGs for end-users and advocates for a "whole-of-the-government and whole-of-the-society" strategy in line with UN principles. The report also suggested a bottom-up localization technique to foster citizen ownership and systemic well-being. Abd Rahman and Yusof (2020) used a quantitative approach to examine the interplay between resident involvement and SDG localization in Malaysia. Their findings elucidated that factors such as knowledge, attitude, behavioral control, and subjective norms influence residents' engagement in SDG-related activities. The study also showed a substantial correlation between local involvement and SDG implementation in Malaysia, particularly in endeavors concerning poverty alleviation, education, clean energy, urban sustainability, and climate change mitigation.

In conclusion, the literature on SDG localization underscores its importance in achieving sustainable development objectives. Researchers emphasized the need for community involvement, multi-stakeholder collaboration, allocation of budget, and effective local governance to overcome challenges and ensure the success of localized initiatives. As the world progresses towards the SDG targets, ongoing research, and practical insights will continue to shape the discourse on how to localize sustainable development efforts effectively.

4.1 Localization Model of SDG

Localization is the most important SDG implementation phase (Guarini et al., 2022). Most goals require local strategy and action. To execute SDGs effectively, districts must build a perfect strategy based on local needs (Bilsky et al., 2021). The overarching aim of SDGs, to leave no one behind, underscores the imperative of addressing the needs of marginalized populations within struggling localities. In Bangladesh, the significance of district administrations in driving national progress is underscored by the fact that the country's development trajectory is evaluated based on the performance of its 64 districts. Consequently, while the central government assumes oversight of SDG implementation, the

district-level governmental bodies bear equal responsibility. In addition, an inclusive framework should ensure that all socioeconomic classes benefit from Bangladesh's rapid economic growth. In this context, local administration's role is unquestionable (Reddy, 2016). Both development and poverty reduction have significant hurdles (Sharma & Tripathi, 2021). Given that a substantial proportion of impoverished individuals reside in rural areas, their targeted assistance assumes paramount importance. The local administration serves as the linchpin in orchestrating the collaborative efforts of governmental, non-governmental, and local government entities. Integral to this collaborative endeavor is the convergence of diverse stakeholders—local, national, and international—as integral components of SDG implementation, as posited by(Jain et al., 2021).

However, the fact that not all districts will benefit from the same development plan (Patole, 2018). For instance, despite commendable government interventions over the past decade leading to a 10% reduction in Bangladesh's extreme poverty rate, regional disparities persist in the pace of poverty alleviation. While the rate of those who are severely poor is roughly 5.7% in some areas, it reaches nearly 15% in a District. Consequently, employing a singular approach would not uniformly address poverty reduction across all districts. Instead, by creating a strategy for that specific location in the underdeveloped districts, it is possible to attain a certain aim across the entire country. This necessitates the customization of action plans on a district-by-district basis. Accordingly, districts exhibiting higher poverty gaps, such as District A, may require more efforts and budget allocations compared to those with lower-level gaps, such as District B. This disparity in needs and resource requirements is illustrated in Figure 1.

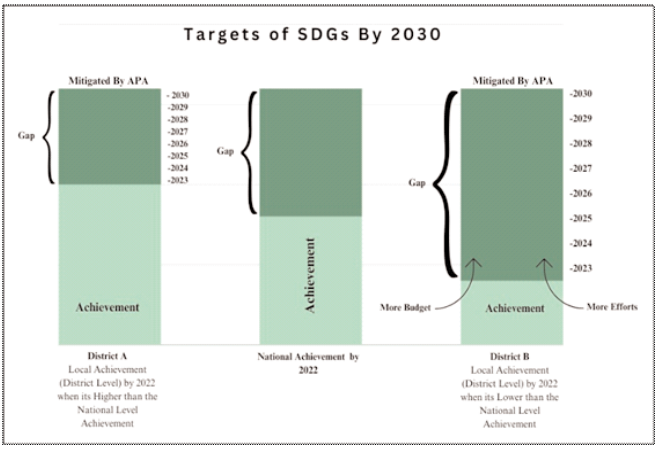

Figure 1: Localization Model of SDG; Source: Developed by Author

The localization term of the SDG merits particular attention in this regard. The basic goal of SDG localization is to make progress locally and nationally (Lanshina et al., 2019). As a result, it is crucial to consider the issues listed in each indicator into account locally and make plans accordingly. In this situation, data collection is required (Perry et al., 2021) to determine the present state of the issues mentioned in each indicator in

each location or district. Given that each indicator delineates specific goals and associated deadlines, adherence to these timelines, either within annual cycles or set periods, becomes imperative. Therefore, districts are compelled to assess factors such as current circumstances (Liu et al., 2019), target objectives to be attained(Jönsson & Bexell, 2021), existing gaps, budgetary constraints, timelines(Guarini et al., 2022), partinent implementing agencies/departments (Lanshina et al., 2019), and delineate yearly action plan (Bilsky et al., 2021) accordingly.

5. Methodology of the Study

This study used qualitative and quantitative approaches to achieve its objectives. Data was gathered from primary and secondary sources. As mentioned in the SDG implementation section, achieving the SDGs requires departmental collaboration. Some SDGs are connected but distinct. Thus, each SDG is directly tied to a department/ministry and possibly indirectly related to others. Different district-level departments/offices of the Gopalganj district provided secondary data for this study. For example, the District Health & Family Planning Office (DHFPO) represents the Ministry of Health and Family Planning, which monitors SDG 3-Good Health and Wellbeing, at the district level. Thus, DHEFPO statistics on newborn, child (under 5), and maternal mortality rates were obtained. UNO Office Gopalganj Sadar Upazila, Tungipara, Kotalipara, Kashiani, and Muksudpur Upazila, District Statistic Office, District Women Affairs Office (DWAO), District Employment And Manpower Office (DEMO), Local Highway Police, Civil Surgeon (CS) Office, Department of Public Health & Engineering (DPHE), Bangladesh Road and Transportation Authority (BRTA), Local Government & Engineering Division were the sources of secondary data. This study cross-checked the data from the national SDG cell of Bangladesh Bureau of Statistics to ensure secondary data accuracy. All district-level departments report SDG progress to the national cell. This research entailed a comparative analysis between data provided by the national cell and that sourced directly from district-level offices. 25 Chief officers from district departments actively participated in **15** Focus Group Discussions (FGDs) to facilitate the collection of primary data for the study. Content analysis and MS Excel were used to evaluate primary and secondary data. The Gopalganj District Annual Performance Agreement (APA) action plans for each SDG target were revealed using content analysis technique and MS excel was used to evaluate the secondary data for calculating the gap between target and achievement and for setting the yearly targeted action plan. [ADD++]

6. Findings of the Study

This study's main aim is localizing the SDGs at the Gopalganj District level. To fulfill this objective, this study developed a model of SDG localization. The model highlights that the gap in achieving targets at the local level can be mitigated through the action plan reflected in the APA. It is also found that there have been 39 prioritized indicators at the national level. These indicators cover the 17 SDGs. The 39+1 indicator that is suitable for Gopalganj is employment generation. The results revealed that no indicators reached the target of SDGs. However, there are seven years more to reach

the targets and achieve the SDGs. Thus, this study proposed some action plans and activities based on the focus group discussion that can be implemented under the APA. It is expected that the successful implementation of the action plan and activities as per the SDGS localization model of Gopalganj will help to localize the SDGs at the Gopalganj district. The details results and discussion are mentioned in the next sections.

6.1. National Prioritized Targets (NPTs) in SDGs

Table 01 highlights the National Prioritized Targets (NPTs) and indicators of Sustainable Development Goals (SDGs). The SDGs have 17 goals, 169 targets, and 248 indicators. Bangladesh considered 39 prioritized indicators of 17 goals. There is also one special indicator (39+1) considering the suitability of each district. Thus, 40 (39+1) indicators must be achieved in Bangladesh for achieving the SDGs. Out of these 39 indicators, 36 indicators are suitable for Gopalganj district. Indicator 4.5.1 (NPT 33- Coverage of protected areas in relation to marine areas) of Goal 14 and indicator 11.2.1 (NPT 34- Forest area as a proportion of total land area) of Goal 15 are not suitable for Gopalganj as there have no protected area and forest in the district. Moreover, NPT 37 (Proportion of complaint Settlement against cognizance of cases by the National Human Rights Commission) is inappropriate at the district level. Therefore, Gopalganj district has to achieve 36+1 targets to achieve the SDGs. The +1 indicator suitable for this district is employment generation which the district administration fixes. Depending on the local need, this indicator was selected after a series of consultations with the different stakeholders.

Table 01: National Prioritized Targets (NPTs) in SDGs

SDGs	NPTs	SDG Indicators	Definition
Goal 1: No poverty	1	1.2.1	The proportion of population living below extreme poverty line
	2	1.2.1	The proportion of population living below national poverty line
Goal 2: Zero Hunger	3	2.2.1	The prevalence of stunting among children under 5 years of age
	4	-	The proportion of cultivable land.
Goal 3: Good Health and Well-Being	5	3.2.2	Neonatal mortality rate
	6	3.2.1	Under-5 mortality rate
	7	3.1.1	Maternal mortality rate
	8	3.6.11	Death rate due to road traffic injuries
Goal 4: Quality Education	9	4.1.1	Completion rate of primary education
	10	-	Completion rate of junior secondary education
	11	-	The proportion of students in technical level to the total students passed every year in the secondary education (SSC, Dakhil, and Vocational)
	12	4.a.1	Ensure the proportion of schools by 100% with access to the following: A. Electricity B. Internet C. Basic drinking water D. Single-sex basic sanitation facilities
	13	4.a.1	Ensure the proportion of schools by 100% with Access to adapted infrastructure and materials for the child/ students with disability.

Goal 5: Gender Equity	14	5.3.1	Proportion of women aged 20-24 years who were married before age 15
	15	5.3.1	Proportion of women aged 20-24 years who were married before age 18
	16	5.4.1	Female labor force participation
Goal 6: Clean Water and Sanitation	17	6.1.1	Population using safely managed drinking water services
	18	6.2.1	Population using safely managed sanitation services
Goal 7: Affordable and Clean Energy	19	7.1.1	Access to electricity
	20	7.2.1	Renewable energy share in total final energy consumption
Goal 8: Decent Work and Economic Growth	21	8.1.1	Annual growth rate of GDP
	22	8.5.2	Unemployment rate
	23	8.6.1	Proportion of youth population (15-29 years) not in education, employment or training
Goal 9: Industry Innovation and Infrastructure	24	9.1.1	Pucca roads (suitable for all seasons)
	25	9.2.1	Increase Industry (manufacturing) value added as a proportion of GDP to 35%
	26	9.2.2	Increase manufacturing employment as a proportion of total employment to 25%
	27	-	Increase the number of entrepreneurs ten times in the ICT sector
Goal 10: Reduced Inequalities	28	-	Ratio of income of top 10% population and bottom 10% population
	29	10.7.1	Recruitment cost borne by employee as a proportion of yearly income earned in a country of destination
Goal 11: Sustainable Cities and Communities	30	11.2.1	Women, children, elderly and persons with Disabilities have convenient access to public transport
Goal 12: Responsible Consumption and Production	31	-	Industries install and operate waste management system.
Goal 13: Climate Action	32	13.1.1	Number of deaths, missing persons and directly
Goal 14: Life Below water	33*	4.5.1*	Coverage of protected areas in relation to marine areas*
Goal 15: Life on Land	34*	11.2.1*	Forest area as a proportion of total land area*
	35	-	Area of tree-covered land in relation to total land area
Goal 16: Peace Justice and Strong Institutions	36	16.9.1	Proportion of children under 5 years of age whose births have been registered with a civil authority
	37*	-	Proportion of complaint Settlement against cognizance of cases by National Human Rights Commission*
Goal 17: Partnerships for the Goals	38	17.1.1	Total government revenue as a proportion of GDP
	39	17.8.1	The proportion of individuals using the Internet
39+1	39+1	8.5.2	Employment generation

Source: SDG Cell, Bangladesh Bureau of Statistics (Accessed on 20 January 2024)
*Indicators that is not applicable for Gopalganj District and other districts level.

6.2. SDG Localization Model for Gopalganj District

Based on the above discussion and concept from the literature review, this study develops an SDG localization model for Gopalganj District (Figure 2). There are two important characteristics of the SDG localization model for Gopalganj. The first is gap analysis by differentiating the target and achievement (Afandi et al., 2021; Guarini et al., 2022). The second is preparing an action plan (Bilsky et al., 2021) to mitigate the gap and achieve the SDG targets. First, this model can examine the development gap between Gopalganj district's progress and the national SDG achievement and targets, and then it can design stratified plans and programs at the district, upazila, union, and village levels to close the gap and reach the target indicators.

As the gap analysis (time and target gap) can be done in the Gopalganj district, initiatives can also be taken to address local deficits, and mechanisms can be established to retain those areas where the situation is better than the target. There is a focal point for the SDGs' implementation within each government ministry. However, since most of the work is done at the field level, it is challenging to plan and oversee it practically at the central level. It must assess locally how the implementation of the SDGs is progressing.

Second, at the start of each fiscal year, government employees at the district and upazila levels submit Annual Performance Agreements (APA). The APA reflects the action plan to complete a specific task within a prescribed time and budget. The five-year plan of the government, the SDGs, and other plans and policies must all be incorporated into the action plan as goals to accomplish in the APA of a specific year. The yearly action plan is prepared according to the gaps, divided by the rest of the year of implementation. The formula is-

$$\textbf{Yearly Targeted Action Plan} = \frac{\textbf{Gap (Target} - \textbf{Achievement)}}{\textbf{Rest of the Year for Implementation}}$$

This approach eliminates the need for additional personnel or human resources. In this plan, the local progress of Gopalganj can be assessed for each goal level versus national progress, using data from the District Statistics Department, Upazila Nirbahi Officers, and other relevant departments to assess the gap, prepare an action plan for APA, and schedule how to finish the remaining tasks in the remaining time. The SDG tracker should compile the monthly progress of all achievements at the field level. This will provide a true assessment of SDG achievement and the local conditions in Gopalganj. The national target will be automatically attained if the SDG localization process of all districts is done in the same way as in the Gopalganj district, and it will ensure the agenda of 'leaving no one behind'.

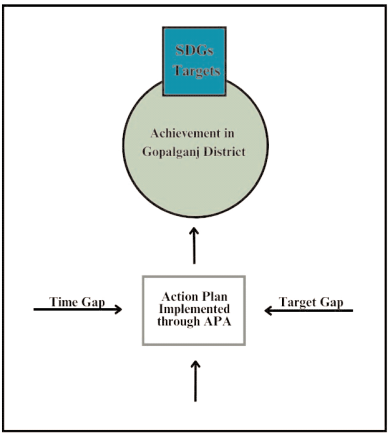

Figure 2: SDG Localization Model for Gopalganj; Source: Developed by Author

6.3 The Gap among the SDG Targets, NPTs, and Achievement in Bangladesh and Gopalganj District

Table 2, in the appendix outlines the overall scenario of SDG localization in the Gopalganj district. The table shows the SDG targets, achievement & gap at both the national (Bangladesh) and local level (Gopalganj) and proposed action plans that can be reflected in the Annual Performance Agreement (APA). The action plans are proposed based on the focus group discussion with the district-level chief officials of different departments. One Example of FDG finding is mentioned at the end of this section and the details for each target are mentioned in the table 02. The table shows that the SDG targets are not fully achieved at the national level. But only two targets- NPT 12 (indicator 4.a.1 Ensure the proportion of schools by 100% with access to Electricity) and NPT 19 (indicator 7.1.1- Access to electricity) are achieved at the Gopalganj district level. The gap at the local level is also explicitly manifested in the table. However, 100% accessibility is not achieved to facilities like the internet, basic drinking water, and gender-neutral sanitation facilities. The study also found that Gopalganj district has attained a better position than the national level in achieving certain SDG targets such as NPT 3 (Indicator 2.2.1), NPT 5 (Indicator 3.2.2), NPT 6 (Indicator 3.2.1), NPT 9 (4.1.1), NPT 15 (Indicator 5.3.1). The main theme of NPT 3 is to prevent stunting among children under 5 years of age up to 12%. In Gopalganj, the percentage is only 0.04%, whereas it is 28% at the national level, which is higher than the SDG target. Another good indicator is the NPT 5-neonatal mortality rate, which should be 12 in 1000 live births. The rate is 21 at the national level and only 0.25 in the Gopalganj district. Similarly, the district achieved NPT 6- Under five mortality rate 25/1,000 live births (national 28 and Gopalganj 0.18), NPT 7- Maternal mortality rate 70/100,000 live births (national 163 and Gopalganj 4). The district also has a good position for NPT 9, 10, and 15. However, efforts should be rendered to maintain the target (Indicators, 2020; Mugellini et al., 2021).

Moreover, the result (Table 2 in appendix) of this study also revealed that Gopalganj district lag behind in some SDG indicators 1.2.1 (NPT 1- The proportion of population living below extreme poverty line- below 3% and NPT 2- The proportion of population living below national poverty line-below 10%), 6.1.1 (NPT 17- Population using safely managed drinking water services-100%), 6.2.1 (NPT 18- Population using safely managed sanitation services-100%), 7.2.1 (NPT 20- Renewable energy shares in total final energy consumption-10%) than the national level. But the achievement till 2020 is NPT 1- national 5.6% (HIES,2022) and Gopalganj 15.5%(HIES,2016); NPT 2- national 18.7% and Gopalganj 29.5%; NPT 17- national 98.3% and Gopalganj 84%; NPT 18- national 99.25% and Gopalganj 74.33%; NPT 20- national 7.25% and Gopalganj 1.7%. Thus, these indicators need to be considered, especially as they are lower than the national level. These indicators hinder the achievement of the national target of SDG. Thus, considering the gap (target-achievement), the proposed action plan for these indicators is- NPT 1- 5520 families /Year (To train at least one member from each family); NPT 2- 10495 families /Year (To train at least one member from each family); NPT 17- To bring 6,167 families under safe drinking water facilities/year (install 617 tube wells/year); NPT 18- To bring 9895 families under safely managed sanitation services/year (build 9895 toilets or supply hygiene system/yr.); NPT 20- To add 583,512 kWh solar energy/ year (include 3200 family). Participants said that to mitigate the gap, appropriate activities need to be implemented as a part of the action plan. For example- for NPT 1, activities include -Involve marginalized communities in training and income generation activities (IGA) through liaison with various departments, NGOs, and others; Ensuring the receipt of social safety net and other financial assistance to the proper person according to the database; Create a database of trainees to engage them in income generation and livelihood activities; Emphasis should be placed on agro-based industrial development; Increase the availability and effective use of modern technology in agriculture; Provide skills and access to finance for small business etc. for the survival of poor and extreme poor with the help of Deputy Commissioner; Rehabilitate beggars and such marginalized groups in productive and sustainable professions; Build resilience of vulnerable people and ensure relief, rehabilitation, and disaster time support. Such specific activities should be implemented for each target that failed to achieve the target. Thus, according to the SDG localization model, these indicators need more efforts from the implementing agencies and vice versa, which is also supported by present literature (Afandi et al., 2021; Ciambra et al., 2023; Hu et al., 2023; Mugellini et al., 2021; Reddy, 2016; Tasaki & KAMEYANA, 2015).

6.4 Discussion

SDG localization has been discussed for years, but the localization is still unclear. Reports and literature only represent the national picture. Again, the district or Upazilas APA does not guarantee implementation. This study has taken steps to assess the state and gap in SDG indicators. The district's goals can be met on time if each department follows their yearly performance agreement plan. If each district follows this plan, no one will be left behind, just like the national objective will be accomplished by adding district accomplishments. Some metrics cannot distinguish gaps by district or Upazila;

hence, relevant ministries/departments should take collaborative action. For instance, if an Upazila aims to train 700 ultra-poor individuals, it only needs to work with 100 if it is divided into 7 poverty-reduction development ministries. They could choose families for their activities with departmental cooperation. If not, all departments must handle 700 persons. Duplication and leaving some families untouched are possible. Local government officials, the department's field workers or officers, or other cutting-edge techniques can select targeted beneficiaries for training, skill-building, or income-generating activities. Following this method, District and Upazila government offices may follow and supervise families' efforts to make money or survive using the department's training and expertise. The division or organization may also provide any additional support needed to sustain its income-generating projects. Localizing SDGs requires budgets to reflect local requirements (Afandi et al., 2021; Bilsky et al., 2021). The budget assigner must carefully examine the gap and consider the local annual implementation plan (Reddy, 2016). For instance, in SDG Goal 4 and NPT 4.A.1. Each school must have electricity, internet, safe drinking water, and gender-neutral sanitation by 2030. Gopalganj has 100% power-equipped schools, compared to 98.4% countrywide. Internet usage has reached 81.01% nationally, while only 56.3%, 93.8%, and 40.1% in Gopalganj district have met the objective for internet, clean drinking water, and gender-neutral sanitation. This indication shows that the Gopalganj district must link 495 schools to the Internet, offer safe drinking water in 70 schools, and provide gender-neutral washrooms in 679 schools to fulfill the target deadline. Though the indicator is related to education, the Ministry of Information & Communication Technology and the Ministry of Local Government must handle these tasks. Thus, the Gopalganj district action plan of the Ministry of Information & Communication Technology should bring at least 124 schools online each year, execute the annual action plan agreement, and allocate this amount to this sector in the ministry/department's budget. Otherwise, the goal won't be met in time. Gopalganj District Public Health Department shall offer safe drinking water to 35 new schools annually, convert 170 schools to gender-neutral washrooms, and execute APA. The annual action plan should account for any school growth during this time. The Ministries must calculate district targets to confirm yearly disbursements. Each ministry/department must annually sign a work plan agreement with its superior authority. Incompetence on the part of the Office or Officer shall be deemed upon failure to perform obligations in accordance with this Agreement. However, these implementation agreements are frequently either not planned following the SDG targets or do not reflect them. Because the status and gaps at the district level are not identified, no action plan is created with a practical estimate of SDG localization. However, the present study can solve these issues and help achieve SDG targetsin the Gopalganj district.

8. Conclusion

Through true localization, the successful implementation of the SDGs is possible within the specified time. This research was done in the Gopalganj district to develop the SDG localization model for the administrative unit in Bangladesh, known as the district. This

study identified the NPTs to be achieved locally and reveals how to make an action plan to mitigate the gap between local achievement and national targets. Every department has its agenda to implement at the field level. Depending on the focus group discussion and the district coordination system, every department should identify the relevant action of their institutions from the action plan and reflect it in their own APA, calculating the gap to be achieved the rest of the time. The concerned authority should allocate a budget to the particular district after analyzing the district's target to be achieved in that fiscal year as per the calculation through the SDG localization model.

The basic goal of SDG localization is to make progress locally and to show it nationally. As a result, it is crucial to take the issues listed in each indicator into account locally and make plans accordingly. The country will advance in the direction of peace and progress if the Bangladesh government's commitment to achieving the SDGs is effectively carried out, which will be the genuine manifestation of the dream of our nation's father. Through this, a developed, successful, and sustainable society where there is no hunger, poverty, illiteracy, inequality, bad health, etc. can be formed in Bangladesh. As a result, the government has adopted a "whole of society approach" to its implementation, and the SDGs place specific emphasis on local participation and implementation. By identifying the local gaps, the national priority targets should be localized for flawless and efficient implementation. Only when SDG Bangladesh's priorities are integrated with regional planning and concurrently applied to the entire nation can the nation guarantee that no one is left behind.

If this model can be replicated in every district, the local administration and the central government will have a clear picture of the local scenario all over the country. The allocation of budgets will be based on needs, and as a result, a homogenous horizontal development will be possible, leaving no one behind. Due to the availability of local data, private investment in every sector will increase, leading to local development. However, it is a great challenge for the local administration to make the gap analysis and action plan properly coordinated. Lack of interest in some cases might create some demotivation for the extra efforts. Local administration, especially the deputy commissioner, can emphasize the need to develop a common working platform for all and to motivate government departments, people's representatives, local government institutions, NGOs, social workers, social leaders, political leaders, etc., to work for the localization of the SDGs. Convincing the budgeting authority to allocate a sector-wise, need-based budget for the district in a particular fiscal year is also a great challenge for the district administration.

This study on the SDG localization model also has some limitations. Firstly, this study only considers the perspectives of one district in Bangladesh. Thus, some findings may not be suitable for districts with different environmental and social settings. Secondly, the action plan is prepared based on the participants in group discussions. However, it could be different in other data collection forms, such as in-depth interviews or KII. Thirdly, due to local data constraints, some calculations were done depending on the national scenario and local observations, which may not reflect the real local scenario. In some

cases, the recent data is available at the national level, but only the old data is available locally. As a result, the actual comparison becomes very difficult. Finally, this study developed the SDG localization model, which is not statistically tested. Thus, further quantitative approaches can be applied to test the relationship and dynamics of the model.

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Acronyms:

AIDS	Acquired Immune Deficiency Syndrome
APA	Annual Performance Agreements
BANBEIS	Bangladesh Bureau
BAPARD	Bangabandhu Academy for Poverty Alleviation & Rural Development
BAS	Bangladesh Agricultural Survey
BER	Bangladesh Economic Review
BNFE	Bureau of Non-Formal Education
BREB	Bangladesh rural electrification board
BRRI	Bangladesh Rice Research Institute
BRTA	Bangladesh Road Transport Authority
BRTC	Bangladesh Road Transportation Corporations of Educational Information and Statistics
BTCL	Bangladesh Telecom Company Limited
CC	Community Clinics
CS	Civil Surgeon
DAE	Department of Agriculture Extension
DDM	Directorate of Disaster Management
DEO	District Education Office
DPEO	District Primary Education Office
DPHE	Department of Public Health & Engineering
DSS	District Social Service
DWAO	District Women Affairs Officer
EED	Education Engineering Department
EPI	Expanded Program on Immunization
HDI	Human Development Index
HHs	Households
HIES	Household Income & Expenditure Survey
IGA	Income Generating Activities
LDC	Least Developed Country
LGED	Local Government & Engineering Division
LGIs	Local Government Institutions
MMR	Maternal Mortality Rate
NGOs	Non-Government Organizations
NMR	Neonatal Mortality Rate
NPT	National Prioritized Target
PBS	Palli Bidyut Samity

PDB	Power Development Board
RHD	Roads & Highways Division
UFPO	Upazila Family Planning Officer
UHC	Union Health Centre
UHFPO	Upazila Health & Family Planning Officer
UN	The United Nations
UNO	Upazila Nirbahi Officer
UWAO	Upazila Women Affairs Officer
WFP	World Food Program

Appendix
Table 02: Gaps and SDG Localization in Gopalganj Aligning with NPT

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
1	1.2.1	The proportion of the population living below extreme poverty line	Below 3%	5.6% (HIES 2022)	15.5%* (HIES 2016)	• Target: 47,794 Families (To train at least one person) • Achievement: 3640 families • Gap: 44154 families	5520 families /Year (To train at least 1 member from each family)
2	1.2.1	The proportion of the population living below the national poverty line	Below 10%	18.7% (HIES 2022)	29.5%* (HIES 2016)	• Target: 90965 Families (To train at least one person) • Achievement: 7008 families • Gap: 83954 families	10495 families /Year (To train at least 1 member from each family)
3	2.2.1	The prevalence of stunting among children under 5 years of age	12%	28% (SDG Tracker, 2019)	0.04%	• Target: Prevalence of No stunting children	To prevent stunting of 110 children per year as a target of no stunting Children
4	-	The proportion of cultivable land.	Minimum 55% of the total land area	64.6% (BRRI, 2018)	56% (BAS, 2018)	-	-
5	3.2.2	Neonatal mortality rate	12/1000 live birth	21 (BER, 2022)	0.25	• Reducing NMR to 0 per 1000 live births by 2025	Reducing NMR to 0 per 1000 live births by 2025
6	3.2.1	Under-5 mortality rate	25/ 1,000 live births	28 (BER,2022)	0.18	• Reducing under-5 mortality rate to 0 per 1000 live births by 2025	-
7	3.1.1	Maternal mortality rate	70/100,000 live births	163 (BER, 2022)	4	• Reducing maternal mortality rate to 0 per lakh by 2025	-
8	3.6.11	Death rate due to road traffic injuries	1.2 per 100,000 people	14.43 (8th 5 years plan) WHO,2018	6.2	• Target: Reducing death rate to 16 out of total population • Achievement: Present death rate is 80 out of total population. • Gap: 64 deaths out of total people •	To reduce 8 deaths per year.

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
9	**4.1.1**	Completion rate of primary education	100%	67.54% (LAS, 2023)	96.05%	-	-
10	**-**	Completion rate of junior secondary education	100%	59.95% (LAS, 2023)	64.2%	-	-
11	**-**	The proportion of students in technical level to the total students passed every year in the secondary education (SSC, Dakhil, and Vocational)	Above 20%	16.5% (BES,2018)	9.8%	-	-
12	**4.a.1**	Ensure the proportion of schools by 100% with access to the following: A. Electricity B. Internet C. Basic drinking water D. Single-sex basic sanitation facilities	100%	A-98.42% B- 82.65% C-97.85% D-95.35% (BES, 2021)	A-100% B-56.3% C-93.8% D-40.1%	• Target: A-1133 Schools B-1133, C-1133, D-1133 • Achievement: A-1133, B-495, C-1063, D- 454 • Gap: A-0, B-495, C-1063, D- 454	B-124 School per year, C-35, D-170
13	**4.a.1**	Ensure the proportion of schools by 100% with Access to adapted infrastructure and materials for the child/ students with disability.	100%	Ramp- 22.17% (BES, 2020)	Ramp- 22.17% Customized Toilet- 16.2% Customized Chair – 11.4%	• Target: 2050 (including all sorts of educational institution) • Achievement: Ramp- 434, Customized toilet-332, Customized Chair-234 • Gap: Ramp -1616 Customized toilet - 1718 Customized Chair- 1816	Ramp - 202 Schools, Customized toilet -215, Customized Chair-227 Schools/ year

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
14	**5.3.1**	Proportion of women aged 20-24 years who were married before age 15	0%	29% (WHO, 2015)	2.26%	• Target: 0% • Achievement: 1063 women are found in this criterion • Gap:1063 marriage before 15 per year	To stop 1063 marriage before 15 years per year
15	**5.3.1**	Proportion of women aged 20-24 years who were married before age 18	10%	52% (WHO, 2015)	35.63%	• Target: up to 10% • Achievement: No of women married before 18 years is 16,782 • Gap: 12701 women	to stop 1510 early marriages before age 18/ year
16	**5.4.1**	Female labor force participation	50%	37% (BBS, 2018)	6.47%	• Target: 50% of total work force • Achievement:19545 women • Gap:2,43319women	To bring 5000 women into labor force per year
17	**6.1.1**	Population using safely managed drinking water services	100%	98.3% (SDG Tracker, 2020)	84%	• Target: 308346 family coverage • Achievement: 229194 families • Gap:49,335 families	To bring 6,167 families under safe drinking water facilities/year (install 617 tube wells/year)
18	**6.2.1**	Population using safely managed sanitation services	100%	99.25% (BER, 2022)	74.33% (BER, 2022)	• Target: 308346 family coverage • Achievement: 229194 families • Gap: 79153 families	To bring 9895 families under safely managed sanitation services/year (build 9895 toilets or supply hygiene system/ yr.)
19	**7.1.1**	Access to electricity	100%	97% (WB, 2020)	100% (2020, PDB, PBS)	-	-
20	**7.2.1**	Renewable energy share in total final energy consumption	10%	7.25% (Population census, 2022)	1.7%	• target:46,71,472 kwh • Achievement:3376 kwh Gap:46,68,096 kwh	To add 583,512 kwh solar energy/year (include 3200 family)

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
21	**8.1.1**	Annual growth rate of GDP	10%	7.25% (FY 2021-22)	2%	• Target:10% • Achievement: 2% • Gap: 8%	-
22	**8.5.2**	Unemployment rate	Below 3%	6% (BBS, 2020)	6%	• Target:77,704 job creation • achievement:29,434people • Gap:48,270people	6034 people per year have to bring under employment
23	**8.6.1**	Proportion of youth population (15-29 years) not in education, employment or training	10%	29.8% (8th 5year plan)	29.8%	• Target: youth • achievement: 107365noofyouth • Gap: 71340no of youth	To bring 8920 youth people not in EET into mainstream per year
24	**9.1.1**	Pucca roads (suitable for all seasons)	100%	44.2% 146328 km (Pucca) 330831km (Total) (LGED, 2020)	54.8% 2508.3 km (Pucca) 4578.1 km (Total)	• Target: 4578.1 km (100%) • Achievement:2508.3 km • (54.8%) • Gap:42069.8 km	To construct 258.73 Km road per year.
25	**9.2.1**	Increase Industry (manufacturing) value added as a proportion of GDP to 35%	35%	12.31% (BER, 2021)	10%	• Target: 35% (1250 crore taka -approx.) • Achievement: 10% (500 crore taka -approx.) • Gap: 25% (750 crore taka -approx.)	To increase min 100 crore taka per year in manufacturing industries
26	**9.2.2**	Increase manufacturing employment as a proportion of total employment to 25%	25%	11.10% (LSF, 2022)	16.3%	• Target:75620 People • achievement: 49300 people • Gap: 26320 people	Increase 3300 people's participation in manufacturing sector
27	-	Increase the number of entrepreneurs ten times in the ICT sector	-	-	270	• Target:2700 • Achievement:270 • Gap:2430	To increase 304 entrepreneurs per year
28	-	Ratio of income of top 10% population and bottom 10% population	20	37.8 (2016, SDG Tracker)	39	• Target: • achievement: • Gap:	-

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
29	**10.7.1**	Recruitment cost borne by employee as a proportion of yearly income earned in a country of destination	10%	-	47%	• Target:27400 Taka • achievement: at present 129200 Taka • Gap:101800 Taka	-
30	**11.2.1**	Women, children, elderly and persons with Disabilities have convenient access to public transport	Minimum 20% seats	20.3% (BBS, 2021)	12.2%	• Target: L.B- 42(9), S.B-32(7) • Achievement: L.B-42(5), S.B-32(4) • Gap: L.B-4 seats/bus; S.B-3 Seats/bus	-
31	**-**	Industries install and operate waste management system.	100%	60% (Base year 2015), SDG Tracker	64% (installed) 60.3% (operating)	• Target:325(ins); 325(op) • Achievement: 208 (ins); 196(op) • Gap:117 (ins); 129 (op)	15 industries ins/years 17 industries op /yr
32	**13.1.1**	Number of deaths, missing persons and directly affected persons attributed to disasters	1500 per 100,000 population	4138 (SDG Tracker, 2019)	1080	-	-
33	**4.5.1**	Coverage of protected areas in relation to marine areas	5%	Not applicable for Gopalganj	-	-	-
34	**11.2.1**	Forest area as a proportion of total land area	22.37%	Not applicable for Gopalganj	-	-	-
35	**-**	Area of tree-covered land about total land area	25%	22% (BAS, 2016)	8.15%	• Target:75591.46 acres • Achievement:24642.82 acres • Gap: 50950 acres	To cover 6370 acres area with social forestry program (per yr)

NPT	Indicator No.	Indicators	Target by 2030	Achievement		Target, Achievement, and Gap in the Present Action Plan	Reflection of Action Plan in APA
				Bangladesh	Gopalganj (by 2021)		
36	**16.9.1**	Proportion of children under 5 years of age whose births have been registered with a civil authority	100%	-	66%	• Target: 50535 Children • Achievement: 33332 children • Gap: 17203 children	To register 8000 children per year
37	-	Proportion of complaint Settlement against cognizance of cases by National Human Rights Commission	60%	Not applicable for District level	-	-	-
38	**17.1.1**	Total government revenue as a proportion of GDP	20%	9.78% (Fitch Ratings, 2022)	0.41%	-	-
39	**17.8.1**	The proportion of individuals using the Internet	100%	30.68% (NWP,2020)	27.4%	• Target: 1295053 people • achievement: 354845 people • Gap: 940,210 People	To bring 117526 people into internet coverage per year
39+1	8.5.2	Employment generation	100%	6% (unemployment rate) (BBS, 2020)	6% (unemployment rate)	• Target: 112740 Person • Achievement: 29434 Person • Gap: 83306 Person	To create employment opportunities for 10413 persons per year

***The calculation of NPT 1 and NPT 2 is completed based on the data of 2016 as the data of 2022 was not available.**

Source: Household Income & Expenditure Survey- HIES (2022; 2016); Civil Surgeon Office-CSO, Gopalganj (2022; 2021); Bangladesh Rice Research Institute- BRRI (2018); Bangladesh Agricultural Survey-BAS (2018); Bangladesh Economic Review-BER (2022); Eight 5th year Plan, Bangladesh (2016-2020); Highway Police, Gopalganj; UNESCO (2020); District Primary Education Office-DPEO, Gopalganj (2020); Bangladesh Bureau of Educational Information and Statistics-BANBEIS (2021);Labor Force Survey, 2022; Bangladesh Environmental Survey-BES (2020); District Women Affairs Office-DWAO, Gopalganj (2021); SDG Tracker (2020;2016;2015); (BER-2022); Power Development Board-PDB (2020); Palli Bidyut Samity-PBS (2020);

District Disaster and Rehabilitation Office (DRRO); National Population Census (2022); Bangladesh Bureau Statistics-BBS (2020); Literacy Assessment Survey(LAS)-2023, BBS; Action Aid, Bangladesh (2021); South Asian Network on Economic Modeling-SANEM (2020); Local Government & Engineering Division-LGED (2021); Focused Group Discussion.

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The Effectiveness of Integrated Budget and Accounting System (iBAS++) in Bangladesh

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Abstract

The main goal of this article is to evaluate how well the Integrated Budget and Accounting System (iBAS++) works in Bangladesh. This study has evaluated and analyzed the information from the questionnaire survey and Key Informant Interviews (KIIs) to determine the effectiveness of iBAS++. Data were gathered based on the variables and associated indicators utilized in this study. The researcher tried to establish a relationship between the research question and the research title while examining the data that had been gathered. For the study, service receivers and providers from accounting offices and civil government officials of pre-and post-iBAS++ periods were surveyed using a structured questionnaire through a 'Google form'. KIIs were conducted with the CGA/audit and accounts officials, C&AG officials, auditors, and other service receivers and providers. The quantitative data have been analyzed by using SPSS. KIIs have been analyzed and processed thematically. Good Mann Kruskal Gamma (γ) was used to measure the association among the factors identified for measuring the effectiveness of iBAS++. The research outcomes will contribute to measuring the effectiveness of the digital accounting and reporting process through iBAS++ over the manual accounting and reporting systems.

Keywords: Government Accounting and reporting, iBAS++, Annual Finance Account, Public Financial Management

JEL Classification: M41, M48

1. Introduction

From the latest Public Expenditure and Financial Accountability-2019 (PEFA-2019) assessment report, Bangladesh obtained a grade of D+ (On a scale of A to D, with A being the highest) for Performance Indicator-29 (PI-29), which is referred to as Timeliness and Annual Financial Reporting. The most recent Public Expenditure and Financial Accountability-2019 (PEFA-2019) assessment report illustrates reasons for obtaining this low grade. The PEFA report indicates that the current accounting and reporting system cannot compare revenue to the budget. In addition, the reports are submitted for external audit more than two years after the end of the fiscal year, and it is based on something other than a combination of national and international accounting

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standards. Hence, the Public Financial Management (PFM) action plan's Component 10 (Financial Reporting) focuses on enhancing the Accuracy and Timeliness of all government-wide in-year and year-end reporting and establishing a cutting-edge internal audit function (Ministry of Finance, Finance Division, 2020). In achieving this goal through iBAS++, new templates for the Annual Finance Account (AFA) and Annual Appropriation Accounts (AAA) in compliance with the International Public Sector Accounting Standard Board (IPSASB) have been drafted and submitted to the President for approval by the Comptroller and Auditor General (C&AG), Bangladesh.

However, most government financial activities are recorded and reported with digital devices. Recording and reporting on a digital platform have positive and negative effects (Cumming & Findlay, 2010). Integrated Budget and Accounting System (iBAS++) is the integrated budget management software for digitally recording governmental financial events. It has four modules, e.g., budget preparation, budget implementation, Accounting, and General Ledger (Ministry of Finance, Finance Division, GoB, 2020). Furthermore, the Government has started iBAS++ for recording and reporting under the strengthening public expenditure management program (SPEMP) financed by the Finance Division, Ministry of Finance, GoB. The International Monetary Fund (IMF) is also assisting the Government in developing and implementing iBAS++ under funding provided by the Government of Japan (Finance Division, Ministry of Finance (GoB), 2017). The budgeting, accounting and reporting system has already been fully automated in the general government sector other than in some autonomous bodies. Upgradation of iBAS++ is ongoing. All governmental receipts and payments are made in real-time with these systems. However, a risk management framework has yet to be established. The shortage of skilled personnel is evident in this sector (Asian Development Bank, 2018).

To find out the factors responsible for measuring the effectiveness of iBAS++, the overall analysis and discussion were made based on six dimensions/variables of the government accounting and reporting system in Bangladesh. The dimensions/variables are (a) Internal efficiency (cost and benefit of getting a service), (b) External Legitimacy (Accountability), (c) Transparency, (d) Perceived ease of understanding the accounting system and the use of services provided by the accounting offices, (e) Cyber security issues arisen for the digitalized accounting system and (f) Quality of services.

As per the public financial management action plan 2018-2023, the overall performance of Public Financial Management (PFM) is assessed with the help of 14 components and five goals. The components and goals are given below (Ministry of Finance, Finance Division, 2020):

Components	Goals
1. Revenue and expenditure forecasting 2. Domestic resource mobilization 3. Debt management 4. Planning and budget preparation	1) Macro-economic stability
5. Public investment management 6. Public sector performance management 7. iBAS++ and BACS implementation	2) Resource allocations with govt. priorities
8. Pension management 9. SOEs governance	3) Efficient service delivery
10. Financial reporting 11. Strengthen external scrutiny and oversight. 12. Strengthen parliamentary oversight and scrutiny of public expenditure.	4) Accountability and Transparency
13. Procurement 14. PFM reforms leadership, coordination and monitoring	5) Enabling Environment

Source: PFM Action Plan 2018-2023

The above information shows that iBAS++ and financial reporting are the components of public financial management. In this article, the researcher has investigated the current status of the effectiveness of accounting and reporting of financial events of the government with the help of the iBAS++. Additionally, according to the PFM action plan progress report, the status of the financial reporting has scored 'D+', which indicates the weakest implementation of required laws and regulations for timely providing services to the citizenry in public expenditure and financial accountability report (PEFA) (Ministry of Finance, Finance Division, 2020).

After critically analyzing the literature in congruence with the effectiveness of accounting and reporting government financial events with iBAS++, the researcher has recognized some procedural or methodological gaps in the previous research. There needs to be more research designs in the study previously conducted. Based on current research, it is expected to improve the research design. This study has looked to launch a novel inquiry on research designs with blended variables, indicators, and methodology. Additionally, the previous study has paid attention primarily to qualitative studies measuring the effectiveness of recording and reporting. Research has yet to empirically assess the effectiveness of the general government financial events in Bangladesh.

Though the prime objective of this study was to measure the effectiveness of iBAS++, hence, Mann-Whitney U Test, Test of Correlation, and Measures of Associations with Goodman and Kruskal Gamma (γ) test have been done based on the assumed variables and indicators to measure the effectiveness of iBAS++ for government financial reporting.

2. Research Methods and Materials

This is mixed-method research. Both qualitative and quantitative analyses were conducted to get research outcomes. For collecting data from service receivers and

service providers, 450 email IDs were collected from the C&AG office website, CGA office website, DCA, DAFO, and UAFO offices from Dhaka and Rajshahi divisions. Besides the service provider's offices, email IDs were also collected from the service receivers' offices, such as different governmental focal point officers, government college websites, and so on. To collect responses from service providers and service receivers, a sum of 450 questionnaire links are given out to respondents. Of the 450 emails, 150 questionnaires were sent to the service providers' officer and 300 to the service receivers' officer. Respondents were also contacted by sending the link via Facebook messengers and WhatsApp numbers. To obtain respondents' opinions, the survey tools, jointly with a cover letter stating the rationale and instructions for the survey, were sent straightforwardly to the person contacted, which was trusted to be an efficient course of action to receive an acceptable response. The survey was carried out around the month of July-August 2022. The telephone follow-up was the efficient communication system for seeking respondents to get them to finalize and take back the questionnaire. Subsequently, to understand the state of affairs and having an all-embracing assembly with some experts and the supervisor of my PhD work, two audit and accounts officers, including a personal assistant of deputy additional CGA (Procedures), were engaged to check out and gather the finalized questionnaires and documents. Necessary information and instruction were provided to the officials concerning staying impartial for the check-out process and gathering responses.

However, using a combination approach to data collection, telephone check-out, and door-to-door campaigning resulted in an incredible number of responses. A sum of 112 filled-in responses was received from July-August 2022. For the triangulating method and data, 112 respondents were selected for mixed methods analysis, supported by an appropriate sample size of 100-150 by Lin Ding et al. (Ding et al., 1995). During this stage, the researcher himself completed frequent online contact with respondents. The CGA officials were also more competent in facilitating the course of action and were doing well in enhancing the number of responses. In the second stage, a new package comprising of aide-memoire mail, a carbon copy of the opinion poll or questionnaire was once for a second time sent to the contact people. Consequently, a different well-organized outcome was obtained, and a sum of 112 responses was collected throughout this stage. It is to be noted that 5 Key Informants Interviews (KIIs) were conducted to collect qualitative data. Finally, 112 usable responses were received from the audit and account officials and related services receivers' officials. In the analysis stage, the data set containing 112 records was cast off for the whole data examination of the study. Qualitative data were analyzed manually based on their theme, and quantitative data were analyzed using SPSS.

3. Analysis of Data

3.1 Thematic Analysis of Qualitative Data

According to the Framework for Assessing Public Financial Management 2019, there are three indicators in government financial reporting: financial *data integrity, in-year budget reports,* and *annual financial reports* with ten dimensions (Kristensen et al., 2019). However, to improve the overall score of digital financial accounting and

reporting systems, one of the Key Informant Interviewees (KII) argued that:

> iBAS++ software should be maintained by the controller general of the accounts office (OCGA). But, currently, it is maintained by the Ministry of Finance, GoB. Because of the lack of coordination, timely accounts reconciliation, preparation of annual financial reports, and auditing are not making it possible. He also opined that proper training should be provided to officers concerning financial reporting with iBAS++ (KII 1 DCA, Rajshahi, 2021).

According to the PEFA framework, there are 10 dimensions of accounting and reporting government financial events effectively. The dimensions include bank account reconciliation, suspense accounts, advance accounts, processes for ensuring the integrity of financial data, coverage and comparability of reports, timing and accuracy of in-year budget reports, completeness of annual financial reports, submission of reports for external audits, and accounting standards. For effectively dealing with the said ten dimensions, one of the key informant interviewees states the process as follows:

> For the timing of in-year budget reports, the completeness of the annual financial reports communication system between service receiver and provider should be developed positively. The expertise and mindset of the officials of the OCGA require development for this system. An increased number of employees is another important factor in making good scores in the government financial accounting and reporting system in Bangladesh (KII 2 and 4, BB and CGA officials, Dhaka and Rajshahi, 2021 and 2022).

In the public financial management (PFM) action plan 2018-2023 there are some success stories regarding the achievement of the 14 components used to measure the effectiveness of public financial management and good governance in governmental entities of Bangladesh. The progress report of the action plan shows that component 10, i.e., financial accounting and reporting, needs immediate attention for improvement. In that case, KII results give us light that:

> Human capital should be developed through proper training and technological knowledge to reach satisfactory performance in government accounting and reporting systems. Digital harassment, i.e., the risk of cyber hacking, should be stopped. Good governance and transparency levels should be developed, abiding by the laws and international accounting standards (KII 3 and 5, C&AG and OCGA service receivers, Dhaka and Rajshahi, 2021 and 2022).

From the above qualitative analysis of facts and data, the researcher has found some variables and indicators for assessing the current status of government financial accounting and reporting systems through iBAS++ in Bangladesh. The derived variables and indicators are consistent and relevant, as assumed and stated earlier as per the PEFA framework.

3.2 Descriptive Statistics

Descriptive Statistics are numerical and graphical methods used to summarize data and

bring forth the underlying information. The following table shows the data summary of the study:

Table 1.1: Descriptive Statistics

Demographics of the Respondents		Frequency	Percent	Cumulative Percent
Respondents Types	Services Receivers	54	48.20	48.20
	Services Providers	58	51.80	100
Respondents Sex	Male	82	73.20	73.20
	Female	30	26.80	100
Year of Service	5-15 Years	83	74.10	74.10
	15-25Years	16	14.30	88.40
	25-35 Years	9	8.00	96.40
	35-45Years	4	3.60	100

Source: Field Data 2022

Table 1.1 of the study presents the respondents' types, respondents' sex, and the year of service of the respondents under study. The result reveals that 48.20 percent of the respondents are service receivers and 51.80 percent of respondents are service providers. On the other hand, of the total respondents of the study, 73.20 percent are from the male group and 26.80 percent are from the female group. Among the respondents, the highest number is 83, and in terms of percentage, 74.10 percent belongs to the 5-15 years services range. The second highest number of respondents is 16; in terms of percentage, 14.30 percent have 15-25 years of service experience. The number of respondents, 9 and 4, belongs to years of experience in the range of 25-35 years and 35-45 years, respectively, in government services, those stand for in percentage of 8 and 3.60 percent.

3.3 Mann-Whitney U Test

For adequate budget preparation, budget execution, and accounting, a centralized and internet-based government financial management information system (GFMIS) (In Bangladesh, it is locally called iBAS++) has been developed (Ministry of Finance, Finance Division, 2020). Approximately 20 lac transactions have been occurring every month with this system. Through iBAS++, 20 lac transactions are made monthly (Excluding pension payments made by authorized banks). Of the transactions mentioned above, 3.2 lac are made by Electronic Fund Transfers (EFT), which are related to government employees' salaries and monthly wages. Moreover, 16 lac Social Safety net transactions are conducted using EFT, ensuring payment timeframe and lowering the danger of fund diversions in usually lengthy funds flow processes (Ministry of Finance, Finance Division, 2020)

The Organization for Economic Co-operation and Development (OECD, 2017) claims that the Information Technology (IT) system affects how government accounting and reporting systems operate as well as the broader business models of public services (The Organization for Economic Co-operation and Development, 2017). In light of this, with the implementation of iBAS++, a favorable change is anticipated in the

government accounting and reporting system in Bangladesh. The researcher used a questionnaire survey to find out what respondents thought about the strengths and shortcomings of services involving maintenance of accommodations, citizen charter, time, and cost, as well as using services from the accounts offices, both before and after the iBAS++ era. It was also investigated that availing any services from the accounting offices has become less troublesome and requiring less time, cost, and hassle-free accommodation, indicating that the accounting and reporting system has become more effective, transparent, and improved. While surveying the respondent's opinions, they were given two to three options from the questionnaire. The options were 'Yes' or 'No', 'Poor', 'Good', 'Very Good' and 'Low', 'Medium' and 'High'. Based on their responses, the Mann-Whitney U test has been done.

The following table shows the test results. The test result tried to show if there was any significant change in the two categories of the respondents in each criterion after introducing iBAS++. The table below shows a significant change in EFT services and the risks for cyber hacking after introducing iBAS++, as the significance level is less than 0.05 in this test. As a matter of fact, in significant cases, Asymp. Significance (2-tailed) is 0.00 and 0.041, which suggests these changes are significant. In the above cases, Z scores are -2.042 and -3.550, respectively. Here, in the above cases, the effect sizes (considering the absolute value) are calculated as per the following equation:

$$r = Z/\sqrt{N}$$

Where r = Effect size, Z = is the Z-statistics and N = Number of cases

$$\text{i.e., for the EFT services, } r = -2.442/\sqrt{112}$$
$$= -2.442/10.584$$
$$= -0.192$$

$$\text{And for the possibility of cyber hacking, } r = -3.550/\sqrt{112}$$
$$= -3.550/10.584$$
$$= -0.335$$

According to Chen, Cohen, and Chen (2010) criteria, 0.1 = small effect, 0.3 = medium effect and 0.5 or .80 = large effect (Chen et al., 2010). It can be mentioned here that effect size is the magnitude of the effect, not indicates the directions. Hence, in the above cases of providing services in EFT, the effect size of the changes is small, and for cyber hacking, the effect size of the changes is medium. It means that the responses from service receivers and service providers before iBAS++ and after iBAS++ differ significantly with small and medium effects regarding the above two criteria. Other criteria involved in this test were not significantly varied and had no size of the effect on the changes.

Table 1.2: Mann-Whitney U Test Statistics[a]

	What is the cost of getting a service from accounting offices after introducing iBAS++?	Processing a file in iBAS++ takes time	For getting a service, the beneficiary needs accommodation in iBAS++	The quality of services in iBAS++	The volume of using paper documents in iBAS++	Citizen Charter is Properly followed in iBAS++	EFT service has reduced the harassment of service seekers	The privacy and security process of accounting system in iBAS++	The quality of accounting information provided by iBAS++	Opportunity for budget management system in iBAS++	The transparency level of services of accounting system in iBAS++	The accountability of authorities in iBAS++	The flexibility of accounting methods in iBAS++	Understandability of working process in iBAS++	Possibility of cyber hacking in iBAS++
Mann-Whitney U	1517.000	1548.000	1475.000	1503.000	1479.500	1502.000	1419.000	1395.000	1431.000	1449.000	1407.500	1371.000	1310.500	1555.500	1035.500
Wilcoxon W	3228.000	3259.000	3186.000	2988.000	3190.500	3213.000	3130.000	2880.000	2916.000	2934.000	2892.500	2856.000	2795.500	3266.500	2520.500
Z	-.420	-.164	-1.264	-.457	-.666	-.835	-2.042	-1.158	-1.003	-.866	-1.123	-1.316	-1.693	-.070	-3.550
Asymp. Sig. (2-tailed)	.675	.870	.206	.648	.506	.403	**.041**	.247	.316	.386	.261	.188	.091	.944	**.000**

a. Grouping Variable: Respondent Type (Services Receivers and Services Providers)

Source: Field data 2022

3.4 Measures of Associations

According to Nachmias and Gurrero, there are some guidelines for measuring associations between variables regarding what is generally considered a strong relationship and a weak one (Leon-Guerrero & Frankfort-Nachmias, 2018). Gamma (γ) is a symmetrical measure of association suitable for use with ordinal variables. This indicates that their value will be the same regardless of which variable is the independent variable or the dependent variable. The value of Gamma can vary from 0.0 to ±1.0 and indicate the strength and direction of the association between the variables. Gamma can be positive or negative. With a Gamma of 1, the variables have a positive association and the dependent variable may be accurately predicted using the independent variable as a basis. Indicating a perfect, adverse relationship between the variables is a Gamma value of -1.0. If there is no correlation between the two variables, the Gamma value is zero (0). As a result, there is no benefit to forecasting the dependent variable using the independent variable.

3.4.1 Measuring the association (Internal efficiency), i.e., increasing and decreasing the costs of availing services

iBAS++ was introduced to enhance demand for better budget outcomes by improving the effectiveness of formal institutions of financial accountability, in particular, the Comptroller and Auditor General's office and the financial oversight committee of the Parliament (Bruce Pollock, 2020). Before introducing iBAS++, a prevalent scenario in government accounting offices and the Sonali Bank(government's representative banker),was that service receivers had to wait in line for hours each month in order to obtain their services (Azad, 2020). They had to visit the government accounts office or bank every month to get their services. It required time and costs (Leon-Guerrero & Frankfort-Nachmias, 2018)

The same two questions were posed to responses from service recipients and service providers using iBAS++ to estimate changes in the effectiveness of the accounting and

reporting system. What was the cost of getting a service from accounting offices after introducing iBAS++? And what time was taken to process a file from the accounting offices after introducing iBAS++? Four options from the survey were presented to them. The following table and paragraph include the statistical findings and subsequent analysis from the crosstab with SPSS:

Table 1.3: Cross tabulation

Count						
		Processing a file in iBAS++ takes time				
		0-7days	5-15days	15-30days	30days-above	Total
What was the cost of getting a service from accounting offices after introducing iBAS++?	0-100tk	80	8	2	1	91
	100-500tk	9	2	0	0	11
	500-1000tk	3	1	1	0	5
	1000tk-above	2	1	1	1	5
Total		94	12	4	2	112

Source: Field data 2022

The above crosstab has shown us the cost of getting a service from accounting offices after introducing iBAS++ and the time it takes to process a file. It is observed that most of the respondents from service receivers and service providers via iBAS++ put their opinion that for getting a service, they need 0-100 taka for a visit or other costs and 0-7 days for processing a file. Out of the 112 respondents, both from service receivers and service providers a minimal proportion reported in 30 days above and the cost of 1000 taka above. Associations between the two efficiency factors are analyzed and interpreted in the following table and passage:

Table 1.4: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	.560	.169	1.962	.050
	Spearman Correlation	.255	.118	2.761	.007[c]
Interval by Interval	Pearson's R	.348	.148	3.889	.000[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is 0.560, indicating a moderate positive relationship between costs and processing files in the accounting offices. Also evident is the existence of a somewhat positive association, with a Spearman rho = .255 and a 2-tailed significance level = .007 in both cases that are <.01. This indicates that this outcome is statistically significant. It has been said that there is a strong likelihood that if service providers and receivers have the chance to do so at a lower cost and in less time, they will view the government's accounting and reporting system as effective. As it is reflected in the respondent's view after the introduction of iBAS++, they (Service receivers and service providers) are getting improved services. The positive sign of Gamma indicates that by using the cost factor to predict the frequency of file processing, we have reduced our prediction error by 56.0 percent.

3.4.2 Measuring the association (Accountability) between maintaining Citizen Charters and Accountability of the authority

To assess the accountability of the authority, the respondents from both the service receivers and service providers via iBAS++ were asked the same two questions. The question how do you feel the accountability of the authority (Timely publications of financial reports) for getting services from accounting offices after introducing iBAS++? And is the accounting offices properly following the rights of the citizenry stated in the citizen charter after introducing iBAS++? They were given three options to choose from the questionnaire. Statistical results and subsequent analysis from the crosstab with the SPSS are given in the following table and paragraph:

Table 1.5: Cross tabulation

Count				
		Citizen Charter is Properly followed in iBAS++		
		Yes	No	Total
The accountability of authorities in iBAS++	Poor	2	1	3
	Good	40	4	44
	Very Good	62	3	65
Total		104	8	112

Source: Field data, 2022

From the above crosstab, it is observed that most of the respondents from service receivers and service providers via iBAS++ put their opinion as Very Good management of Citizen Charter with the initiation of iBAS++. Of the 112 respondents, 62 said 'Yes' and accountability is in a 'Very Good' position. 40 respondents have said 'Yes', and accountability is in a 'Good' position. Only 2 respondents said that accountability is in a 'Poor' position. On the other hand, a minimal number, i.e., only 8 respondents, stands against enhancing the accountability position in government accounting offices with the introduction of iBAS++. Associations between the two efficiency factors are analyzed and interpreted in the following table and passage:

Table 1.6: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	-.446	.288	-1.242	.214
	Spearman Correlation	-.134	.101	-1.421	.158[c]
Interval by Interval	Pearson's R	-.154	.113	-1.630	.106[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is -0.446, indicating a moderate negative relationship between accountability and maintaining citizen charter in the accounting offices. Also, it can be shown that there is a weak negative association because the Spearman rho = -.134 with 2-tailed significance level = .158 in both cases is □.01. It denotes the outcome is not statistically significant. There has been a suggestion that there is no chance that the service providers and recipients

will believe that the government accounting offices are accountable to the general people if they are unable to get services in accordance with the citizen charter. From the above data, it is reflected in the respondent's view after the introduction of iBAS++ that the service receivers and service providers are not getting services as per the citizen charter. The negative sign of Gamma indicates that by maintaining the citizen charter factor to predict the level of accountability, we have reduced our prediction error by 44.60 percent

3.4.3 Measuring the association (Transparency) between the opportunity for the budget management system and the transparency level of services

To assess the budget management system's transparency, respondents from the service receivers and service providers via iBAS++ were asked the same two questions. What is the transparency level (Hassle-free services) for getting service from accounting offices after introducing iBAS++? And what is the opportunity for budget management (Bribery-free and other undue influences-free) after introducing iBAS++? They were given three options to choose from the questionnaire. Statistical results and subsequent analysis from the crosstab with the SPSS are given in the following table and paragraph:

Table 1.7: Cross tabulation

Count

		The transparency level of services of accounting system in iBAS++			
		Poor	Good	Very Good	Total
Opportunity for budget management system in iBAS++	Poor	0	1	2	3
	Good	1	17	11	29
	Very Good	0	19	61	80
Total		1	37	74	112

Source: Field data, 2022

From the above crosstab, most of the respondents from service receivers and services providers via iBAS++ put their opinion as a Very Good opportunity to budget management with the initiation of iBAS++. Of the 112 respondents, 74 said 'Very Good' about the transparency level. 37 respondents have said 'Good'. Only 1 respondent said the transparency level is in a 'Poor' position. Associations bet+ween the two efficiency factors are analyzed and interpreted in the following table and passage:

Table 1.8: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	.614	.130	3.374	.001
	Spearman Correlation	.335	.095	3.729	.000[c]
Interval by Interval	Pearson's R	.307	.096	3.383	.001[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is 0.614, indicating a strong positive relationship between transparency and budget management in the accounting offices. It is also seen that there is a moderate positive correlation exists as here the Spearman, rho = .335 with 2-tailed significance level = .000 in both

the cases that are <.01. It means this result is statistically significant. There is a high probability that if the service receivers and providers have the opportunity for better budget management, they might consider that the government accounting and reporting system is transparent. As is reflected in the respondent's view, after the introduction of iBAS++, they (Service receivers and service providers) are getting improved services. The positive sign of Gamma indicates that by using the budget management factor to predict transparency, we have reduced our prediction error by 61.40 percent.

3.4.4 Measuring the association (Understandability) between the understandability of the working process and the quality of accounting information

To assess the quality of accounting information, the respondents from both the service receivers and service providers via iBAS++ were asked the same two questions. The questions were: what is the perceived ease of understandability of the accounting system (Using digital devices, availability of internet, making bills by using own digital devices or computer shop) after introducing iBAS++? And what is the quality of accounting information (Tax-paying decisions, investment decisions, and decisions relating to contingent liabilities) provided after introducing iBAS++? They were given three options to choose from the questionnaire. Statistical results and subsequent analysis from the crosstab with the SPSS is given in the following table and paragraph:

Table 1.9: Cross tabulation

Count					
		Understandability of working process in iBAS++			
		Poor	Good	Very Good	Total
The quality of accounting information provided by iBAS++	Poor	0	0	1	1
	Good	3	24	4	31
	Very Good	0	30	50	80
Total		3	54	55	112

Source: Field data, 2022

From the above crosstab, it is observed that most of the respondents from service receivers and services providers via iBAS++ put their opinion as Very Good understandability of accounting system with the initiation of iBAS++. Out of the 112 respondents, 55 said 'Very good' about the understandability level, and four said the understandability level is 'Good'. Only three respondents said that the understandability level is in 'Poor' position. Associations between the two efficiency factors are analyzed and interpreted in the following table and passage:

Table 1.10: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	.781	.104	5.040	.000
	Spearman Correlation	.439	.080	5.125	.000[c]
Interval by Interval	Pearson's R	.421	.091	4.871	.000[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is 0.781, indicating a strong positive relationship between the understandability and quality of accounting information provided by iBAS++ from the accounting offices. It is also seen that there is a moderate positive correlation exists as here the Spearman, rho = .439 with 2-tailed significance level = .000 in both the cases that are <.01. It means this result is statistically significant. It has been suggested that there is a high probability here that if the service receivers and service providers have a better understanding of the accounting and reporting process, then they might consider that the accounting information quality is very good for decision-making. It is reflected in the respondent's view after the introduction of iBAS++ that they (Service receivers and service providers) are well understood about the accounting process. The positive sign of Gamma indicates that by using the quality of the accounting information factor to predict the level of understandability, we have reduced our prediction error by 78.10 percent.

3.4.5 Measuring the association (Cyber hacking) between respondent view and the possibility of cyber hacking

To assess the possibility of cyber hacking, the respondents from both the service receivers and service providers via iBAS++ were asked the same two questions. The questions were: what is the possibility of cyber hacking (Embezzling funds by fraudulent transactions) after introducing iBAS++? And what type of transaction (Mobile money transfer, bank account transfer, etc.) is occurring in iBAS++? They were given three options to choose from the questionnaire. Statistical results and subsequent analysis from the crosstab with the SPSS are given in the following table and paragraph:

Table 1.11: Cross tabulation

Count

		Respondent Type		
		Service Receiver	Service Provider	Total
Possibility of cyber hacking in iBAS++	Low	8	3	11
	Medium	23	11	34
	High	23	44	67
Total		54	58	112

Source: Field data, 2022

From the above crosstab, it is observed that most of the respondents from service receivers and services providers via iBAS++ put their opinion of a high possibility of cyber hacking with the initiation of iBAS++. Out of the 112 respondents, 67 respondents said 'High' about the possibility of cyber hacking. 34 respondents have said the possibility of cyber hacking is 'Medium'. Only 11 respondents said that the possibility of cyber hacking is in a 'Low' position. Associations between the two efficiency factors are analyzed and interpreted in the following table and passage:

Table 1.12: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	.576	.128	3.792	.000
	Spearman Correlation	.337	.088	3.754	.000[c]
Interval by Interval	Pearson's R	.321	.087	3.554	.001[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is 0.576, indicating a moderate positive relationship between cyber hacking and the perceptions of the service users and service providers via iBAS++ from the accounting offices. It is also seen that there is a moderate positive correlation exists as here the Spearman, rho = .337 with 2-tailed significance level = .000 in both the cases that are <.01. It means this result is statistically significant. It has been suggested that there is a probability of cyber hacking if strong steps are not taken against it. The positive sign of Gamma indicates that by using the budget management factor to predict the level of transparency, we have reduced our prediction error by 57.60 percent.

3.4.6 Measuring the association (Quality of services) between The EFT service and the Volume of Paper documents

To assess the quality of services, the respondents from both the service receivers and services providers via iBAS++ were asked the same two questions. The questions were: what is the volume of paper used in providing accounting services (Real-time transactions) after introducing iBAS++? And how does the EFT service reduce the hassle of using paper documents after introducing iBAS++? They were given three options to choose from the questionnaire. Statistical results and subsequent analysis from the crosstab with the SPSS is given in the following table and paragraph:

Table 1.13: Cross tabulation

Count				
		EFT service has reduced the harassment of the service seekers		
		Yes	No	Total
The volume of using paper documents in iBAS++	Low	81	3	84
	Medium	16	3	19
	High	8	1	9
Total		105	7	112

Source: Field data, 2022

From the above crosstab, it is observed that most of the respondents from services receivers and services providers via iBAS++ put their opinion as 'Low' volume of use of the paper document for providing services with the initiation of iBAS++. Of the 112 respondents, 84 respondents said 'Poor' about using paper documents. 19 respondents

have said paper document is used as 'Medium'. Only nine respondents said the 'High' volume of paper documents is used. Associations between the two service quality factors are analyzed and interpreted in the following table and passage:

Table 1.14: Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Gamma	.560	.216	1.495	.135
	Spearman Correlation	.184	.110	1.962	.052[c]
Interval by Interval	Pearson's R	.160	.109	1.704	.091[c]
N of Valid Cases		112			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Source: Computed by the researcher from field data, 2022

From the above table, the SPSS output reports that the Gamma for the table is 0.560, indicating a strong positive relationship between using paper documents and the quality of services provided by iBAS++ from the accounting offices. It is also seen that there is a weak positive correlation exists as here the Spearman, rho = .184 with 2-tailed significance level = .052 in both the cases that are <.05. It means this result is statistically significant. That means there is a probability of enriching service quality by reducing the volume of paper use. It is reflected in the respondent's view after the introduction of iBAS++ that they (Service receivers and service providers) are using low paper documents to process an accounting transaction or provide services. The positive sign of Gamma indicates that by using the budget management factor to predict f transparency, we have reduced our prediction error by 56.00 percent.

Conclusion and Future Research Directions

This article has concentrated on the factors that determine how well iBAS++ is utilized for accounting, reporting, and government financial management. Interviews with Key Informants produced data that has been qualitatively interpreted. Comparatively, quantitative data have been examined using a statistical program like SPSS. However, using relevant indicators, this article determined the relationship between the dependent and independent variables. The study's findings indicate improvements from both the perspectives of service providers and receivers. Specifically, since the launch of iBAS++, there has been noticeable enhancement across five key factors: Efficiency, Transparency, Accountability, Understandability, and Service Quality.

Additionally, the study found that budget management systems have reached a transparent position as this service is providing, supervising, and monitoring as per the citizen charter by the governmental entities in Bangladesh. To achieve the study objective, the Spearman coefficient rho and the significance level (p-value) are calculated to measure the effectiveness among the variables chosen for the study. The results are found statistically significant at p <.01. From the viewpoint of the service receivers and service providers, recording transactions and producing financial statements get eased with the introduction of iBAS++. So, all the indicators of

accounting and reporting systems were improved after the governmental entities used iBAS++ for public financial management. Besides the findings mentioned earlier, it has also been found that iBAS++ has made it possible to provide services quickly without frequent visits to accounting offices. In addition, the respondents recognized the current state of affairs and the main obstacles to using iBAS++ to improve the government accounting and reporting system in Bangladesh. Last but not least, to enhance the quality of services through using iBAS++, the Comptroller General Accounts (CGA) should timely reconcile accounts, i.e., on a real-time basis, data extracted from the Bangladesh Bank (BB) and National Board of Revenue (NBR). The CGA must prepare Annual Appropriation Accounts (AAA) and Annual Finance Accounts (AFA) at the end of each fiscal year. The accounts must be audited and certified by the Comptroller and Auditor General as early as possible by the fiscal year-end. The CGA should publish the Audited AFA for evaluating the financial performance of the government by the stakeholders for ensuring greater accountability and transparency. As per the Rules of Procedures No. 233, the Public Accounts Committee of the Parliament should play a vital role in settling the audit complaints arising in the AFA in-year basis.

Travel time and costs have already been reduced with the initiation of iBAS++ and this result is found in the article. EFT, Pension Management, and other financial services are provided without human interference. But redundant steps in the approval process, such as sanctioning some bills and joining the Last Pay Certificate (LPC) are still alive. The bill approval and payment also require the issues between Bangladesh Bank and the CGA regarding the EFT ceiling and real-time reconciliation to be solved. Last but not least, it requires adequate qualified human resources. Training facilities for the staff must be ensured.

The main shortcoming of the study is that the effects of control variables, such as the size and capability of the government entities, were not considered. In order to explore differences in the impact of the study construct and measure the effectiveness of iBAS++, future researchers might add more control variables to the body of existing literature.

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Online Public Service Delivery: A Study on Recipient's Response to e-Mutation and other Services of the Office of Assistant Commissioner (Land)

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Abstract

The government has introduced online services in the office of the Assistant Commissioner (Land) [AC (L)]. Many of the land services are now delivered online. This paper addresses the crucial question of whether service recipients possess adequate awareness and skills to utilize these online services effectively. Against this backdrop, the study evaluates the responsiveness of key service providers and assesses landowners' awareness and proficiency in accessing e-mutation services and other online offerings from the AC (L) Office. Data pertinent to the recipient's response to e-mutation services, payment of land development tax (LDT), and other online services were derived from a study titled 'Online Service Delivery of Assistant Commissioner (Land) Office and Recipient's Response to Online Services'. The data was collected from the recipients in rural areas through surveys, interviews, and case studies. Descriptive statistical tools were used for data analysis. The findings indicate that while all landowners demonstrate awareness of the legally mandatory provision of mutation and LDT payment for ownership, a significant portion, approximately 45% of respondents, lack awareness regarding the availability of these services online. Moreover, despite a high rate (95%) of mobile phone ownership, a substantial proportion of recipients lack the requisite skills to access these services through digital devices. The study reveals that a considerable percentage of respondents, 65%, still resort to in-person visits to land offices, while 72% incur additional expenses for computer composition or resort to media channels for completion of the process. In light of these findings, the study recommends comprehensive mass awareness programs leveraging various communication channels such as newspapers, radio, television, leaflet distribution, and billboards to promote government programs of e-mutation, and other services. It advocates for intensive skill development training for frontline staff to enhance their responsiveness and cultivate a pro-service attitude toward service recipients. Additionally, the assignment of dedicated staff members to guide individuals through the application process for e-mutation and other services is proposed as a potential strategy to facilitate smoother service delivery.

Key Words: e-Mutation, smart mutation, land management service, responsive service delivery, real time service

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1. Introduction

The Government of Bangladesh has taken a number of initiatives to deliver public services online. Since 2018, the land administration has launched an e-mutation to update land records (Hasan & Gourab, 2023), to simplify the land service delivery system, and to make land administration more accountable, responsive, people-friendly, and transparent (Akter, R. 2020), to make land services easily accessible, cost-effective, and to eliminate recipient's sufferings and unfair means. Now, the government is going to introduce smart mutation, i.e., mutation without any application. The Smart Mutation system will be integrated into the Smart Land Service portal (https://land.gov.bd/), replacing the current mutation system, e-mutation. A circular of the Ministry of Land states that the AC (L) needs to automatically file a miss-case for e-mutation by combining the received copy of the land title deed and land transfer notice with an e-mutation application (The Dhaka Tribune, 2023). The government has started the modernization of public service delivery in line with the target of building a smart Bangladesh. Are the key service providers responsive to the needs of the recipients? Are the recipients of public services skilled enough to apply modern technology in getting services online? Have the public sufferings been eliminated due to modernization remains a research concern.

2. Objectives of the Study

The AC (L) Office is one of the pioneers in the modernization service delivery with a notable shift towards online platforms for various services. Notably, landowners now have the convenience of submitting mutation applications and paying land development tax (LDT) through online channels. However, a significant proportion of landowners in rural areas of Bangladesh may face literacy challenges, raising questions about their awareness and proficiency in utilizing digital technologies for accessing online services. In light of this context, the article endeavors to achieve the following objectives:

- Assessing the status of awareness of service recipients (the landowner, buyer, seller, successors etc.) about the e-mutation and other online services of the AC (L) office;
- Investigating if the service recipients have the required skills to use digital devices in getting e-mutation and other land-related services online, ensuring timely and seamless transactions without complications; and
- Assess whether service recipients have experienced reductions in time, costs, and the number of visits to Union Land Offices (ULO) and AC (L) offices as a result of utilizing online services.

3. Scope of the Study

This research investigated the service recipient's response to the e-mutation and other services of the AC (L) office only. The level of digital literacy and the perception of the service recipients were investigated. The availability of digital facilities such as hardware, software, and digital infrastructural facilities at AC (L) offices and ULOs and the status of the digital skill of AC (L) were out of the scope of this study.

4. Significance of the Study

Documents of land ownership as public records need to be made accessible to all, and getting real-time services is the demand of the time. For this purpose, the Ministry of Land (MoL) of the Government of Bangladesh has initiated the process of digitalization of land management, including mutation, payment of LDTs and other fees/charges, copies of khatians, plot-based images, mouza maps, etc. to ensure real-time services to the people. As this transformative process unfolds, there arises a pertinent need for a comprehensive study to evaluate the efficacy of modernized service delivery and to identify the challenges encountered by service recipients in effectively leveraging digitalized services. This study aims to discern the barriers hindering individuals' access to digitalized services and explore avenues for overcoming these constraints to facilitate doorstep delivery of services. Additionally, it seeks to delineate strategies for enhancing the cost-effectiveness, functionality, and simplicity of digitalized services, ensuring they are citizen-centric and devoid of corruption and bureaucratic complexities. Ultimately, the goal is to imbue digitalized services with meaning and relevance for all stakeholders.

5. Literature Review on e-Land Services

The introduction of e-mutation is one of the biggest achievements of Bangladesh. The United Nations has awarded the Ministry of Land (MOL) the prestigious 'United Nations Public Service Award' (UNPSA) for 2020 in the category of "developing transparent and accountable public institutions" in recognition of the "e-Mutation" initiative (UNGA, 2020 Resolution 57/277).

Mutation is a documentation procedure through which the title of a previous owner of the property replaces his or her name with the new owner in the Khatiyan (Records of Rights). Property mutation is the process through which the title entry is changed (Rahman & Talukder, 2016) in local records once it has been transferred in the name of a new owner (Mishra, 2022). The process of mutation electronically is known as e-mutation (UN DESA/DPIDG, 2017). The mutation of property is the process of transferring the 'Title' in the name of the new owner when an asset is sold or transferred (https://www.magicbricks.com/blog/what-is-mutation-of-property-and-why-its-important/ 114472html).

One of the biggest challenges of the e-mutation system is the lack of citizens' skills inusing digital technology. A portion of the citizens, especially those with little to no education, lack behind regarding technological know-how does not find the new system easy. The adoption of digital services in the public sector is complex and challenging, particularly in developing countries, due to the inefficiency of public organizations, the shortage of skilled human resources, and the poor ICT infrastructure (Sang, et al., 2009). The current e-mutation system in Bangladesh fails to address critical issues, such as discrepancies in survey records and conflicts regarding land inheritance (Talukder, 2019). Present land management in Bangladesh is in-accessible and not responsive to the interest of the common people (Saif & Hawlader, 2018). Citizens are largely unaware of the legally mandatory process of mutation and are also unwilling

as it incurs costs, time, and complications (a2i, nd). Currently, the registration office is not linked with the AC (L) office. Now, the government is going to introduce the 'Smart Mutation System'. The 'Smart Mutation' system will be integrated into the 'Smart Land Service' portal, replacing the e-mutation system (The Financial Express, 2023, Dec 30). Under the system, the sub-registry office will be linked with the AC (L) office; a copy of the deed along with a land transfer notice will be sent to the AC (L) office by sub register, and no application by the land owner will be needed for mutation (The Dhaka Tribune, 2023, Dec 30).

The goal of the e-mutation is to simplify the process of land record changes for both the applicants and the service providers who process the applications (MoL, 2020). The present multi-stage e-mutation process is lengthy, and it needs to be simplified to introduce a one-stop service. Currently, the process starts at the desk of an office assistant (OA) or mutation assistant and then goes through AC (L), ULAO, surveyor or kanungo, and reverse to AC (L) to complete the process. Firstly, OA receives and examines, then passes it to AC (L), AC (L) sends it to ULAO for the report (Ariful, I. 2013), ULAO sends it to the surveyor, the surveyor prepares the report and submits it to ULAO and ULAO send it to AC (L) for decision. If the application is submitted correctly and the report is OK, then Mutation is complete after hearing in person with the applicant and other stakeholders, and if anything is found wrong, the whole process revolves and the applicant has to take the pain. Akter, M. (2023) studied the satisfaction level of recipients of the services of AC (L) offices and found that lack of responsiveness, insincerity, and non-cooperation of the staff in service delivery as well as lack of knowledge and awareness of citizens about digital land services are major constraints to achieve satisfaction in digital land administration.

Several obstacles impede the effective delivery of land services, including a dearth of skilled personnel, workforce shortages, excessive workloads, logistical inadequacies, insufficient training, the intricate nature of service delivery processes, and corruption, among others (Akter, R. 2020). Even though, any applicant can submit applications themselves, in truth, everyone has to submit through middlemen or agents (Rahman & Talukder, 2016). According to findings by Hasan & Gourab (2023), only a minority of applicants, comprising 11%, opted to visit Union Digital Centers (UDCs) to complete the E-mutation process. The majority, accounting for 75% of respondents, opted to engage private internet service providers to facilitate the submission of their applications. Meanwhile, a mere 14% of respondents reported being able to navigate the application process independently without external assistance. Nearly four-fifths of the service recipients are dependent on others to apply for an e-mutation due to a lack of knowledge of land-related documents and poor ICT skills (Hasan & Gourab, 2023). Building awareness is required in rural areas so that people from remote places with little or no education can have access to full advantage of the service.

6. Conceptual framework

The government of Bangladesh has initiated e-mutation to ensure transparency,

eliminate corruption, minimize cost, simplify the process, and reduce people's suffering. E-mutation and other online services have not reached all the recipients at the grassroots level. Union Land Office (ULO) is the gateway of land management services, and the Union Land Assistant Officer (ULAO), kanungo (KGO), surveyor, head assistant/officer clerk, and messenger are the key functionaries. The effectiveness of the modernization of land management services depends on the responsiveness of these key functionaries to the needs of the service recipients. The delivery points of e-mutation and other land management services need to be well-equipped with the hardware and software facilities and human resources to deliver services online. Most of the people at the grassroots level in Bangladesh are not aware of online land management services, including e-services, and they lack the skills to use digital technology in their everyday life. With this backdrop, the conceptual framework of this study has been developed as follows-

E-service is aimed at simplifying the process with a view to reducing time, process tiers, people's sufferings, and rendering services at the doorsteps of the people. However, a significant challenge arises due to the predominantly semi-illiterate to illiterate population, particularly among small landholders in rural areas of Bangladesh. This demographic lacks the technical proficiency required to effectively engage with e-mutation and other online land-related services. Consequently, they often rely on external assistance to navigate these digital platforms. The success of digital services hinges upon the readiness of service providers and the awareness, digital literacy, and responsiveness of service recipients, all of which are integral factors in achieving the intended objectives of service digitalization.

7. Methods of Data Collection

Questionnaire survey, one-to-one interviews, and case study methods were applied to collect data from the landowners, including buyers, sellers, inheritors, successors, and other beneficiaries. A set of semi-structured questionnaires and a checklist for interviews for the service recipients were prepared. Before the field work started, a pilot study was done to ascertain if the data collection tools were in line with the stated study objectives and appropriate.

The survey was conducted in 09 Upazilas of 08 districts to cover all 08 divisions and diversities of geographic location such as plain land, haor, char land, hilly areas, and remote rural areas. The data collectors went to villages and collected data from the respondents in person, and the study team recorded case histories of landowner's experiences of services received from the AC (L) offices. A total of 397 landowners responded to the questionnaire survey. A few cases were analyzed, and one case has been attached as Appendix 1. Descriptive statistical tools were applied to analyze the data.

8. Analysis of the Data Output

8.1 Questionnaire Survey

A total of 397 recipients responded to the questionnaire survey (Table 1). Out of 397

respondents, 93% are male, only 7% are female, 84% are above 30 years of age, 51% have primary level education (including illiterate persons), only 19% have education above SSC, and 95% use mobile phones, while others need support from others to get the message.

	Gender		Age		Education Level			Use Mob. Phones	
	M	F	< 30	>30	Up to PSC	Up to SSC	Above SSC	Yes	No
Total	368	29	63	334	202	118	77	378	19
%	93	07	16	84	51	30	19	95.14	4.85

Table 1: General Information about the Respondents

Source: Field Survey

8.1.1 Awareness of the Service Recipients

Table 2 states the respondent's awareness of the online services of the AC (L) office.

Table 2: Awareness of the Respondents about Online Services of AC (L) Office & ULO

Sl	Awareness of Services of the AC (L) Office & ULO	Yes		No	
		Nos.	%	Nos.	%
1	About the need for mutation and payment of LDT	397	100	-	0
2	Online mutation	177	45	88	22
3	Notices for land ownership services (Mutation, LDT, etc.)	304	77	61	15
4	List of documents required with application for mutation	305	77	65	16
5	Hearing for mutation	304	77	61	15
6	Payment of Land Development Tax (LDT) online	304	77	50	13
7	Certified copies of land ownership records	90	23	105	26
8	Certified copies of Mouza Map	137	35	210	53
9	Copies of DCR etc.	232	58	33	8.3
10	Land records (25 years history of the chain of ownership)	263	66	102	26
11	Information relating to land ownership & transfer	75	19	290	73
12	Copies of ownership-related records porchas/khatians,	87	22	188	47
13	Plot-based Information and images	00	00	365	92
14	Needed to go to UDC/private computer centre for online services	285	72	00	00

Source: Questionnaire Survey

It appears from Table 2 that all the respondents (100%) know about the need for mutation and payment of land development tax (LDT), while only 45% know about the online process of mutation, 88 (22%) respondents don't know about the online process, 304 (77%) respondents mentioned that they know some documents are needed, but they don't know the full list of documents required.

No respondents have any idea about the plot-based information and plot-based images of land. 263 (66%) respondents reported that they know the mandatory provisions of 25 years history of records of the chain of ownership for transfer land, while 102 (26%) don't know about it, 210 (53%) are not aware of the requirements of copies of mouza map, 290 (73%) are not aware of the information relating to ownership transfer, and 365 (92%) respondents don't know about plot-based images. About the use of online services, 285 (72%) respondents mentioned that they went either to a union digital center (UDC) or a private computer center for online services of AC (L) offices.

Among the 397 respondents surveyed, a minority, constituting 4.85%, reported not using mobile phones (see Table 1). However, a significant proportion of cell phone users revealed limitations in their ability to utilize messaging functions independently, often requiring assistance from others to access and comprehend messages. Moreover, only a small fraction demonstrated proficiency in sending and receiving messages, yet exhibited a lack of familiarity with the utilization of email, applications, or websites.

It appears from the data that most of the service recipients are aware of mutation, LDT payment, and the requirement of some document for mutation, but they don't know about other services of the AC (L) office and ULO. Because of a lack of required digital skills, 72% of service recipients needed to go to UDC or a private computer centre to get online services. These findings are consistent with the study findings of Akter (2023) and a2i (nd). Those studies find that lack of knowledge and awareness of citizens about digital land services are the major constraints to achieving satisfaction with digital services.

8.1.2 Response of Service Recipients to Land Service-Related Notices

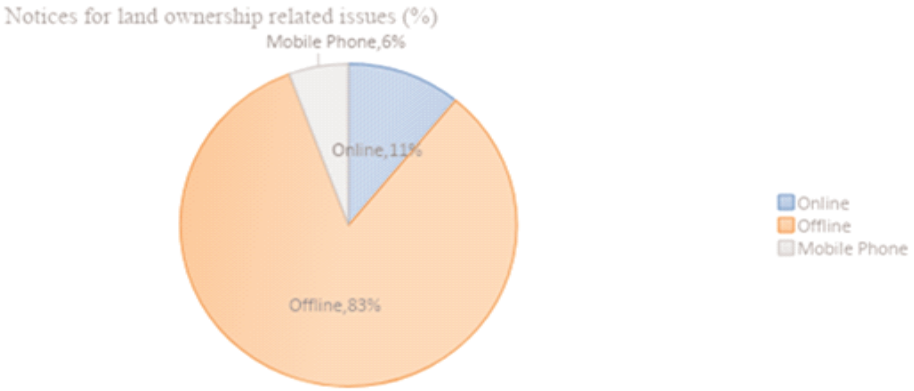

Fig. 1: Notices for Ownership Related Issues

About notices, 330 (83%) respondents have mentioned that they received notices for land services offline (in person), only 6% mentioned that they got notices on mobile phones, and 11% received notices from AC (L) offices on the online platform (internet).

8.1.3 Notice of Hearing for Mutation

It appears from Figure 2 that 287 (72%) respondents received notices offline for hearing for mutation and other purposes, 142 (36%) respondents received information online, and 20 (5%)of respondents used mobile phones for mutation.

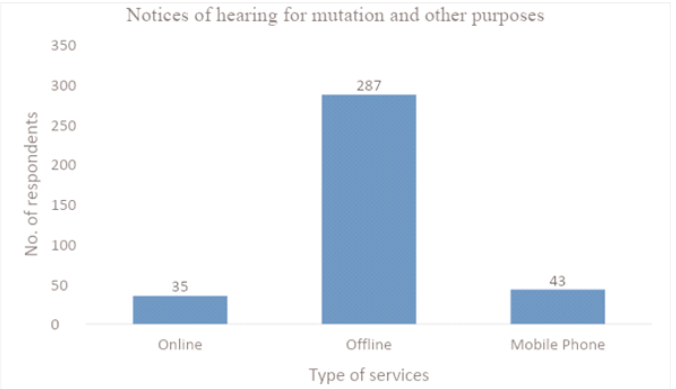

Fig 2: Notices of Hearing for Mutation and Other Purposes

8.1.4 Mutation Process

The majority of the respondents, 203 (51%), stated that they had mutation done offline, i.e., they went to ULO and AC (L) office for mutation. Only 12% of respondents used mobile phones to communicate with the AC (L) Office and ULAO for information about mutation, and 20 (5%) of respondents used platforms for mutation.

Fig 3: Mode of Process of Mutation

8.1.5 Payment of Land Development Tax (LDT) & Other Fees

The highest number of respondents, 259 (65%), reported that they paid Land Development Tax (LDT) and other fees in person (offline). Only 25 (6%) respondents) paid LDT and other fees via bkash/Nagad/Nagad apps, and 81 respondents (20%) paid online.

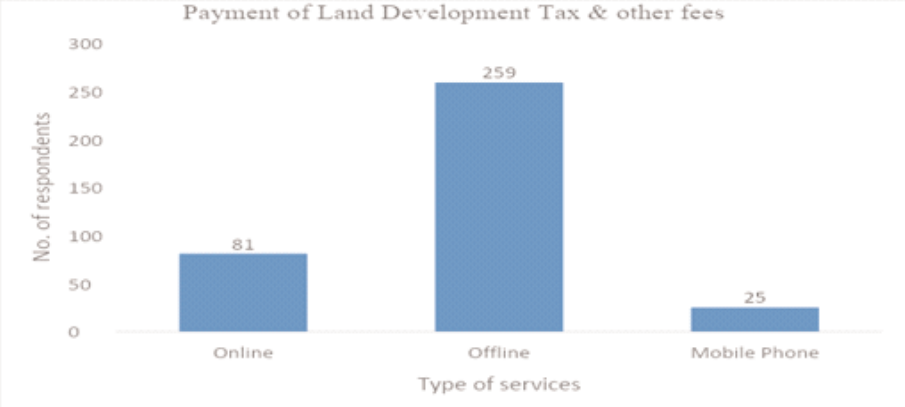

Fig 4: Payment of LDT and Other Fees

8.1.6 Problems Identification by the Respondents of Questionnaire Survey

In addition to the response to the questionnaire, the respondents have mentioned some problems. The problems identified by the landowners are summarised below in Table 3. It appears from Table 3 that the service recipients have a number of problems in getting services from land offices. The respondents have mentioned that the time, cost and visits to land offices have not reduced as they expected, some employees at front desks lack skills, and they are not friendly.

Table 3: List of Problems Identified by the Service Recipients

Sl	Problems	Freq	Suggestions
1	Had to wait to get services from ULAO, in some cases for days	35	Accountability needs to be ensured for the accomplishment of tasks on time
2	The final copy/ approval letter was delayed because of problems with the server or computers	23	Regular maintenance and uninterrupted power supply is needed
3	The staff makes cases complicated on the plea that some documents are missing/defective	57	Staff needs to be made accountable to maintain records correctly and complete time-bound tasks on time
4	A broker needed to get service easily. It needs extra costs	55	The engagement of media persons must be stopped
5	Without an agent it takes a long time to get services done	35	The practices of agents must be taken into account
6	Mutation is a complex process	19	It needs to be simplified
7	It is difficult to get information from the staff of land offices.	26	The staff should be more helpful to the people.
9	The staff of land offices pretends that they are very busy and they have no time to talk with me	23	Employees of land offices are expected to be friendly and cooperative
10	Need to visit several times to Land offices even for a single service.	21	Staff should be transferred to those who are in-efficient
11	Because of the lack of a help desk in the land offices, the service recipients go via the broker to expedite the process.	34	A help desk needs to be introduced in land offices.

8.2 Analysis of Interviews with the Recipients

The study team arranged one-to-one interviews with 20 recipients and discussed their

responses about how they get services such as e-mutation, payment of LDT, etc. During discussions, they mentioned a few problems. A summary of the problems identified by the interviewees is given in Table 4.

Regarding digital skills, 19 out of 20 interviewees expressed dissatisfaction with the level of digital proficiency among support staff. Additionally, 12 respondents highlighted instances of non-cooperative and non-responsive behavior exhibited by desk-level employees; because of the unavailability or lack of responsiveness of ULAO staff, recipients reported they need to make multiple in-person visits to ULO for mutation and payment of LDT. 12 recipients noted instances where ULAOs were inaccessible or unavailable within office premises, necessitating extended waiting periods for their assistance. Nine interviewees mentioned they needed media to pursue, as they encountered challenges in obtaining assistance without active persuasion.

Table 4: Problems Identified from the Interview with the Service Recipients

Sl	Problems	Frequency
1	ULAOs lack digital skills	11
2	ULAOs and service providing other staff, such as KGOs surveyors, mutation assistant/peshkar, have no positive attitude towards them	12
3	Support staff lacks digital skills	19
4	Staffs are not cooperative, and their attitude is not positive	09
5	The mutation process needs to be simplified; hearing takes time, and the land owner has to visit the AC (L) office	14
6	Some records are damaged, illegible	05
7	No list of documents required for mutation is given, and consequently, people are being harassed	11
8	Non-availability of ULAO	12
8	They needed media to expedite the process	09
9	Media practice needs to be stopped	08

On the excuse of missing and defective documents, the recipients need to wait, which can be solved instantly. Only because of the lack of documents, an applicant needs to visit land offices several times and wait even for days.

8.3 Case Study Analysis

A number of cases were analyzed. It has been found from case studies that the root causes of the recipient's suffering are a lack of skills and responsiveness of the key functionaries at the front desk. The respondents of the cases stated that they needed the media to expedite the process and get services done. They also mentioned that most of the employees at the front desks are not friendly to them. A brief on a case is attached to Appendix 1.

9. Findings of the Study

9.1 Recipient's Perspective on Online Service Delivery

Awareness of Online Process

Generally, the land owners are aware of legal mandatory provision of mutation and payment of LDT for ownership. However, findings relating to awareness are mentioned below.

- All (100%) of the respondents are aware that the mutation is needed for establishing ownership rights, but they are not aware of the circular of the government regarding the time-bound process, procedure, and 28-day time limit for disposal of the mutation case.
- Most of the owners of small land holdings in remote rural areas don't know what services of AC (L) are being delivered online; they don't know how to get services online.
- 21 (5%) respondents reported that they had to visit ULAOs several times to get the mutation done, to pay LDT, and to get other information or certified copies.
- The landowners or buyers don't know what documents are required to be submitted along with the application for mutation. Although a list of documents is displayed and given online, the landowners and service recipients are unaware of it.
- 55 (14%) of respondents to the questionnaire survey and 9 (45%) out of 20 respondents to the interview stated that they had to somehow manage media personnel to expedite and get the work done.

Damaged Land Records: 5 (25%) of respondents interviewed reported that many of the land records, such as register (Balam Book), porcha, Mouza Map are age-old, and now these are not legible, some are damaged, some are crossed marked etc. On the grounds of damage or illegible documents, the service recipients had to visit several times to get copies or had to manage other ways.

Lack of Skills: most of the respondents lack digital skills. They don't know how to send and receive messages; don't know about group messaging.

Support of Others: 72% of respondents (Table 1) needed support from others to get access to online services. They went to UDC or a private computer centre to get services online.

9.2 Service Provider's e-Readiness

Digital Coverage: AC (L) offices have digitalized mutation and LDT payment processes only. All other services, such as plot-based imaging with complete records of ownership, owner's profile, payment of fees and charges for additional services, and application processes, are not digitalized.

Mutation Process: The e-mutation process starts with the submission of the application online. The current process is follows as- AC (L) gives instructions to ULAO/surveyor for reports after the application is received; ULAO/surveyor verifies the records and submits reports to AC (L), then AC (L) notifies the applicant for hearing. Landowners need to remain present in-person at AC (L) offices for the hearing. If all records are found correct, the mutation is complete in 28 days. If any document is missing or anything found incorrect, the whole process revolves, and it takes a long time to get it finally approved.

Lack of Skills of Staff: The frontline service providers, i.e., ULAOs, Head Clerk, Kanungo (KGO), and surveyor, lack the required skills to deliver online services,
Non-cooperation: The employees at the desks are not cooperative.

10. Recommendations

10.1 Mass Awareness Program

- The study findings suggest a mass awareness program, i.e., wide publicity through newspapers, radio, television, circulation of leaflets, displaying on the billboard, displaying the process on the monitors of all AC (L) offices and ULOs about the government programs for e-mutation and other land management services with detailed information and pictures.
- Campaigning engaging UP members, ULAO, local elite, and Imam of mosques may be arranged at the village level to make the people aware of the digital services of ULOs and AC (L) offices, no media/agent is needed to get work done, and ULO is legally obliged to get work done within the timeline given by the government.
- A week of online land management services may be observed at least once a year.
- One employee at the land office can be exclusively assigned to guide people on how to lodge an application for e-mutation and other services.
- The list of documents required for each service, specifying the necessary documents for mutation submissions, should be published both online and on notice boards. It should be thoroughly checked upon receipt of the application to ensure completeness, thereby reducing potential hassles for the applicant.
- People are also required to be made aware that they need not go to any media person to get services from the AC (L) office or ULO.

10.2 Skill Development Training

Officials working at the Union and Upazila Land Offices who provide services at the doorsteps need intensive skill development training to improve digital skills and responsiveness and to develop a pro-service attitude to the service recipients.

10.3 Ensuring Time-bound Task

The service providers need to be made accountable for failure to time-bound disposal of mutation and other services without any valid ground and action taken for failure needs to be demonstrated.

10.4 Stop Intervention of Broker

The study finds that the rural illiterate/semi-literate landowners go to the broker to expedite the work. This practice tarnishes the image of service providers and the government, and it needs to be taken into account to eliminate public suffering.

10. Further Study on Time, Cost and Visits

It has been found that in some cases, the time, cost, and number of visits (TCVs) of the applicants to get the work done is high. A study needs to be designed to investigate cases where the number of visits is high, and then ways and methods need to be identified to decrease time, eliminate the undisclosed costs, and reduce the number of visits.

11. Implication of the Study Results

The study results can be used as input in formulating policies and strategies for reducing service recipients' suffering by creating awareness among people and also for eliminating constraints of online e-mutation and land management related to other services.

12. Conclusion

Online service delivery is a reciprocal process. E-readiness of the service providers can't eliminate public suffering. The effectiveness of e-mutation, online payment of land development tax, and other online services largely depends on the recipient's awareness, digital skills to have access to online services, and responsiveness. The respondents were not open to disclosing information relating to problems in getting online services, e.g., time, costs, number of visits, and getting services through intermediaries. However, people's suffering has not been completely eliminated. The frontline employees, who directly work with the service recipients, i.e., ULAO, Kanungo, surveyor, messenger, office/mutation assistant, computer operator, and photocopier, are needed to be liable for failure to complete tasks on time. Intensive monitoring and at least weekly reviews of pending cases and action-based decisions must be demonstrated to build people's confidence.

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Appendix 1
Case Analysis
A Case of Correction of Name in the Mutation Record

Ms. Jamila Khatun, (not real name), a widow of 65 years with two daughters lives in Dhaka. Her husband died in the early nineties. Her husband bought a plot in nearby Gazipur in 1989 from a landowner. Registration was done on time. For a long time, the widow did not go to the plot. The plot was recorded under a false name during the city jorip. During the city jorip (survey), the handwritten porcha was written correctly, and a copy of the corrected math (field) porcha was given to the widow in 2010. Since then, she has not felt the need to get the printed copy. While the widow decided to sell the plot in 2018, she collected a printed copy of the porcha and noticed that her daughter's name was not correctly written in the printed porcha. During City Jorip, in hand-written math porcha her daughter's name was written correctly. She went to the respective AC (L) office and applied in the prescribed form for correction, and she assigned a media (lobbyist) to expedite the correction process. She submitted her application in July 2021, and her lobbyist contacted the staff of the AC (L) office several times to start the process for correction of the record. About three months passed, but no progress, and no date was set for the hearing. After repeated persuasions for hearings, the date was set and postponed again and again. The widow was frustrated. Since it was being delayed and she needed to sell the plot urgently, she met AC (L) and requested, with the reference of a senior officer, to start the miscellaneous case for the correction of the name of her daughter in the mutation record.

AC (L) instantly instructed the surveyor to start the case and set a date for a hearing. Unfortunately, the surveyor argued that there were a huge number of pending cases, it is impossible to set a date so early, and it will take at least three months to set a date for a hearing. AC (L) ordered him to set the date for the next hearing on Tuesday and to make the date final. Moreover, AC (L) asked the surveyor not to argue and do the job. The surveyor was annoyed; however, a hearing was taken on the set date, but it was not the end.

Now, it is the responsibility of the surveyor to submit a report to the AC (L). The surveyor was persuaded repeatedly, but he made many excuses. He told the widow that he was very busy, had a lot of pending cases, and had no time to do the job now. The surveyor asked the media to come later or call him on another day, and so on. Days passed without any progress. The widow tried to meet AC (L) several times but could not meet as AC (L) had a lot of other duties like mobile court and eviction. However, finally, she could meet AC (L). AC (L) was sympathetic to her, told her that he was sorry for the delay, and told the staff that until the task was finished, no staff could leave the office. Finally, the report was submitted, and AC (L) approved the file.

But this was not the end of the case. She went to the Tehsil office (union land office) for the entry of the case. The concerned staff told her to come on the next day for entry into the computer. The widow told the entry staff (Mutation Assistant) that it took five

hours to reach here and requested the staff do it today. The staff replied 'no' and said she could not do that on that day and asked the widow to come the next day.

The widow went back home with a heavy heart and couldn't sleep. She woke up at dawn and worried if she would get the final copy. She went again to the staff the next morning. The staff had composed the report on the computer and told her that the photocopier did not work so they couldn't give her a printed copy instantly. They also told the widow to make a photocopy from outside. However, she managed to get a photocopy. Then, the surveyor told her to call him tomorrow. The widow went back home, and after two days, she went to AC (L) again for the final copy. AC (L) assured her that she would get the final copy by the next day and asked her to send someone to collect it; she should not come again. Finally, AC (L) signed the final copy at 8 p.m., as he had other urgent jobs to do. However, the widow got the corrected copy. It took about seven months to get a corrected copy.

Analysis

The disposal of the name correction case was delayed due to unknown reasons at the staff level, especially those who play a key role in the delivery of services directly to clients. The reasons may include a lack of skills in ICT, a lack of professionalism, a lack of responsiveness, a lack of accountability, or any other undisclosed reasons.

It is not only the AC (L) that can eliminate public suffering. It appears from the case discussed above that the key persons, i.e., the staff at the front desks, such as Surveyor/Kanungo, Mutation Assistant/ Computer operator/photocopier operators, need to be trained in ICT, make them well-equipped, and bring them under liability for the accomplishment of specific time-bound tasks to make the land services free from public suffering and harassment and to make online mutation and other land management services more effective and free from all sorts of irregularities.

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Ensuring financial decisional Autonomy in the Local Government Institutions of Bangladesh: Enhancing local Revenue Collection with a special focus on Outsourcing.

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Abstract
The Local Government Institutions (LGIs) serve as the primary facilitator of Bangladesh's service provision and development initiatives. The development of local governance is currently in its nascent stage, but it is steadily gaining momentum. Bangladesh has a comprehensive array of laws and ordinances about various local governance tiers. However, the level of autonomy enjoyed by the local government of Bangladesh in terms of financial and decision-making matters is insufficient. This study aims to provide suggestions for improving revenue collection in the local government institutions (LGIs) of Bangladesh, hence increasing their autonomy. This study's findings indicate that to achieve an acceptable level of financial and decisional autonomy for local government, it is necessary to enforce certain regulations rigorously while also considering the adoption of new policies. To make recommendations, different literatures regarding local revenue collections have been reviewed. Additionally, a questionnaire survey has been conducted. Several recommendations have been identified based on the comprehensive analysis conducted in this study. The primary initiatives would encompass the recruitment of specialized tax assessors and collectors, implementing awareness campaigns targeting the local populace, incentivizing local government representatives to enhance tax collection efforts, and introducing economic reforms to augment the income levels of the local community. Finally, employing third-party entities, commonly known as outsourcing, is highly recommended to collect local taxes. This approach has been successfully implemented in other nations and is a valuable precedent.

Keywords: Local Government, Outsourcing, Financial Autonomy, Decentralization, LGIs.

1. INTRODUCTION

Local governments are crucial in advancing nations and fostering global economic development. But their primary responsibility lies in the areas of waste management, water supply, sanitation, transportation, public safety within their jurisdiction, infrastructure development, regulation and enforcement, community development,

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emergency management, education and planning and development control, etc. In the past, the populations of states were relatively small. In recent years, the functions of the Government have undergone substantial transformation. They desire to promote the nation's progress and bear responsibility towards the general population. The monitoring of all national development programs by central governments is not feasible. The Local Government Initiative (LGI) was established to foster and safeguard equitable development throughout the country. Local development relies heavily on their indispensability. NGOs are widely perceived by central governments worldwide as valuable partners in the provision of public services. The primary emphasis of central governments lies in the domains of diplomacy and defense, whereas LGI primarily assumes responsibility for the execution of development operations. Shah et al. (2012) argue that local governments exhibit greater accessibility to the public, enabling them to respond more promptly to the needs and demands of their constituents. The presence of democracy enhances the level of accountability of Local Government Institutions (LGI) towards the people in terms of service delivery. LGIs serve as effective platforms for facilitating citizen engagement in government decision-making. The devolution of local control to LGIs was prompted by the Governments' limited capacity to cater to the needs of citizens effectively. LGIs adhere to the directives of elected officials and the Government.

Local Government Institutions (LGIs) in many nations are classified into several administrative divisions: provinces, regions, departments, counties, prefectures, districts, city corporations, townships, towns, boroughs, parishes, municipalities, villages, and local service districts. Various nations exhibit varying levels of local government capacity. Franzsen et al. (2011), Hofman et al. (2002), and Ikawa et al. (2008) have identified robust local government institutions in Nordic countries, Japan, the United Kingdom, and the United States. Nevertheless, developing countries like Bangladesh face significant challenges in establishing robust local government structures. Decentralization contributes to the enhancement of local administration. Numerous countries have challenges in their pursuit of effective decentralization. The intricate nature of state governance systems occasionally results in the oversight of local government bodies, hence rendering the task challenging. The operational efficiency of local government systems in numerous nations is suboptimal. Numerous factors contribute to the inefficiency of municipal governments on a global scale. Local governments play a pivotal role in fostering economic development and facilitating essential services. The success of LGI is contingent upon the presence of autonomy, adequate resources, and a proficient team. Local government institutions (LGIs) can request assistance from the central government. The fragility of local government institutions (LGIs) in developing nations can be attributed to their limited financial resources, which are necessary to successfully implement development initiatives and provide public services (Hossain et al, 2004). This study delved into the scopes of different approaches of local revenue mobilization, highlighted scope for further investigation, and provided policy recommendations.

1.1 Literature Review

The Local Governments in Bangladesh encounter numerous obstacles in their efforts to collect money at a low level. According to Siddiqui et al. (2005), most local administrations do not prioritize the significance of local tax collection. According to Alam et al. (1989), local governments exhibit a lack of proactive behavior due to concerns that implementing tax collection measures from local inhabitants may result in a loss of public support and diminish their prospects of re-election. This is why local governments exhibit a higher reliance on the central government for the provision of block grants. According to a survey done by the Centre for Policy Dialogue (CPD, 2013), it was shown that a significant majority (78%) of sampled towns were facing considerable economic strain in their ability to effectively operate and sustain current services at appropriate levels. The financial resources mobilization performance of rural local government was investigated by Ullah and Pongkuan (2010) by implementing case studies in three Union Parishads in Bangladesh. This study uses several methodologies employed by the Union Parishads for tax assessment and collection. The analysis revealed that none of the three Union Parishads have implemented a comprehensive value-based assessment. The Union Parishads expressed several grievances in the report mentioned above. One prominent concern was the absence of authority and funding to hire professional assessors for more accurate assessments.

Additionally, they reported a lack of formal training in assessment procedures and a dearth of accurate historical assessment records and data. Another issue highlighted was the presence of inconsistent guidelines for assessing rural properties based on rental or construction costs.

Furthermore, the Union Parishads noted a longstanding tradition of taxpayer non-compliance, which has not been met with legal consequences. Lastly, they needed clearer guidance and supervision from the approving authority. The study by Ullah and Pongquan (2010) observed that the assessment process was conducted arbitrarily, mostly relying on the householders' ability to pay and sometimes even their willingness to pay. The assessed rates varied between 3% and a maximum of 7%.

In recent times, certain local government entities in Tanzania have used the practice of outsourcing to enhance the efficiency of tax collection at the local government level. In a study conducted by Fjeldstad, Katera, and Ngalewa (2008) on behalf of Research on Poverty Alleviation (Repoa) in Dares Salam, the authors examined the phenomenon of outsourcing in local governments in Tanzania. The authors noted that municipal revenue collection was delegated to entities such as tax consultant firms, market groups, and cooperatives. Several advantages were identified, including increased revenue, improved predictability, cost efficiency, and the potential to redistribute council personnel. Also noted are challenges in effectively overseeing private entities and instances of wrongdoing in financial administration. In addition to implementing alternative measures, it is advisable to undertake additional research about the efficacy of outsourcing within local governmental entities in Bangladesh.

1.2 Local government finance and local revenue collection in Bangladesh

The Ministry of Finance (2023-24) reports that the central government's allocation for Local government was only 6.13% of the overall budget and 15.4% of the development budget for the fiscal year 2023-24 This is crucial since the revenue collection of Bangladeshi LGIs falls short of expectations, making them reliant on government allocation. Table 1 displays data from several City Corporations, Municipalities, and Union Parishads' revenue collection scenarios for selected fiscal years.

Own source revenue of some Bangladeshi LGIs, random years (data provided by the LGIs)

City corporation/municipality	Fiscal year	Local own revenue as a percentage of the total budget
Dhaka North City Corporation	2016-17	45.51 %
Dhaka South City Corporation	2015-16	30.31%
Rajshahi City Corporation	2014-15	4.02%
Chittagong City Corporation	2015-16	28.05%
Phulpur Municipality	2015-16	67.89%
Durgapur Municiplaity	2016-17	18.48%
Shibganj Municipality	2016-17	37.62%
Bakshiganj Municipality	2016-17	15.78%
Singheswar Union Parishad	2016-17	5%
Kachikata Union Parishad	2016-17	5%
Narayanpur Union Parishad	2016-17	0.0007%
Char Kumaria Union Parisahd	2106-17	5.5%

One Union Parishad collected a mere 0.0007% from its tax revenue, which is a significantly concerning number for an LGI. Additionally, several Union Parishads had an unsatisfactory performance.

Data of some developing countries' cities are shown to better compare with Bangladesh (Shah, 2013).

City	Own source revenue (%)	Total transfers (%)
Abuja	40.0	60.0
Chennai	66.0	34.0
Delhi	73.1	26.9
Hyderabad	60.0	40.0
Jakarta	53.7	46.3
Kolkata	41.6	58.4
Mexico city	30.0	70.0
Mumbai	80.0	20.0
Pune	91.0	9.0
Addis Ababa	96.9	3.1

According to the findings shown in Table 2 (Shah, 2013), it is evident that the collection of own source revenue in prosperous emerging countries' cities surpasses that of Bangladesh.

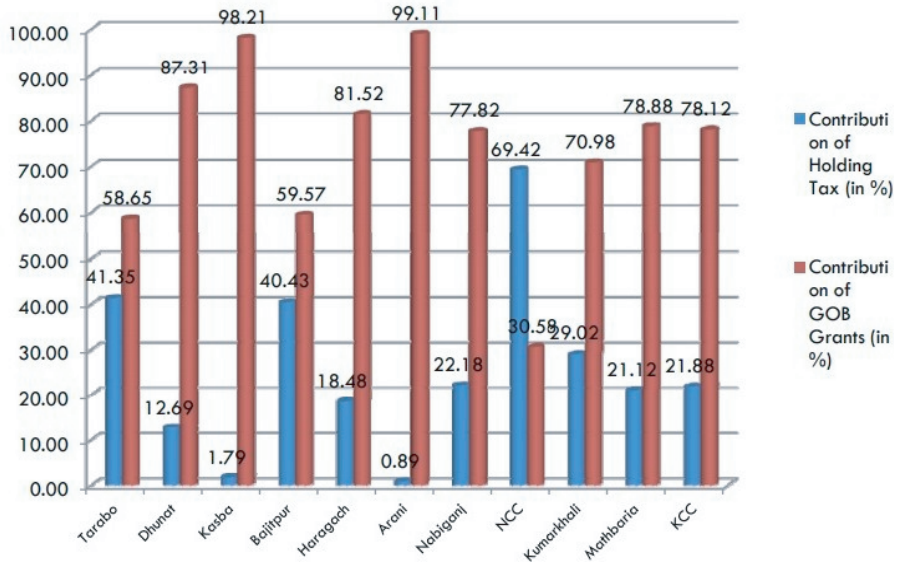
Data of some developed countries' cities are shown to better compare with Bangladesh (Shah, 2013).

City	Own source revenue (%)	Total transfers (%)
Copenhagen	83.0	17.0
Helsinki	89.7	10.3
Milan	67.0	33.0
Washington	74.0	26.0
Bern	75.6	24.4
Canberra	57.6	42.4
Melbourne	85.8	14.2
Pretoria	90.1	9.9
Toronto	76.0	24.0
Busan	82.0	18.0
Montreal	76.0	24.0
Seoul	90.9	9.1
Tokyo	94.3	5.7

Table 3 shows that developed cities have high own-source revenue. Tokyo collects 94.3% of its budget. Several cities got a lot of their money from local sources. Comparing Bangladesh's revenue collection to other emerging and developed nations shows that LGIs have a better potential to increase revenue.

The Centre for Policy Dialogue (CPD) (2013) studied local government financing in nine municipalities and two city corporations. The CPD study revealed a notable deficiency in municipal income mobilization efforts. Notably, Bangladeshi municipalities rely heavily on their budgets to manage local worker compensation. Unfortunately, the CPD investigation found that only 5 of 9 municipalities (55.6%) could pay their compensation expenses with their earnings. Among the municipalities surveyed, two 'C' category municipalities encountered significant challenges, with 22.2% of employees experiencing salary delays. In one municipality, salary delays persisted for 11 months, while in the other, delays extended to 7 months. These disruptions have understandably caused frustration and demoralization among affected personnel. Only two of the nine municipalities studied, 22.2% of the total, both 'A' and 'B', managed to generate surplus resources following the fulfillment of employee compensation obligations. CPD examined the property tax (holding tax) ratio to government funding received by municipalities and local corporations in 2010-11. The survey found that many municipalities and city corporations relied on central government transfers. Government funding comprised 50-70% of municipal operational funds.

Own source revenue of some LGIs found by CPD



The municipalities of Kasba and Arani exhibited significant levels of reliance on the central government, with proportions of 98.21% and 99.11% of their respective budgets, respectively.

1.3 Outsourcing in Local Government and Experiences of Other Countries

Outsourcing is assigning services to external entities, also known as third parties. In public administration, outsourcing refers to the transfer of traditionally public employee-performed functions to external entities. The decision to outsource specific tasks is motivated by the population's overall well-being. Privatization and the concept mentioned above are separate entities. In outsourcing, the governing body assumes full management and responsibility for the outsourced service. Privatization involves the transfer of ownership of an outsourced agency. The publication "Outsourcing in the Public Sector" (2013) by the Institute for Public Procurement cites John O'Looney's (1998) definition of outsourcing as stated in his book "Outsourcing State and Local Government Service." O'Looney suggests that outsourcing governmental services can be compared to a corporation's decision to divest peripheral businesses to prioritize its core competency.

In recent years, Tanzanian local governments have increasingly outsourced tax collection to external entities (Fjeldstad et al., 2008). Various local government entities designated different types of agents. According to Fjeldstad (2008), property taxes in the Kinondini MC region were collected by a private consultant firm specializing in tax advisory services from 2004-05. Market fees, however, were collected by market groups or cooperatives. Reports from Tanzania indicate that adopting outsourcing in

local revenue collection has enhanced the local budget's predictability. Furthermore, it led to a decrease in the administrative costs borne by the local government. Although local government revenue collection has increased, certain municipalities have had to allocate a substantial portion of their funds to agents. Mwanza CC had a retention rate of 32% for the revenue received. Lewis et al. (2021) documented corruption cases in the relationships between tender boards and private agents in specific LGIs. Legal proceedings against non-compliant agents resulted in substantial costs. Geys et al. (2016) conducted a study that examines the correlation between financial pressures caused by a decrease in local government revenues and the subsequent rise in outsourcing activities in Norwegian municipalities.

2. METHODOLOGY

This dissertation utilises both primary and secondary sources. The primary data was originated from Union Parishads, Municipalities, and City Corporations. A qualitative survey was conducted on local government representatives, bureaucrats, and residents. The responses were examined using qualitative descriptive methods. This study focuses on the three levels of local government that have a greater ability to generate revenue directly. The study recruited participants from all levels of local government institutions (LGIs) in a random manner.

The respondents for this study were chosen via purposive sampling. This sampling approach involves assessing the knowledge, relationships, and competence of potential respondents before selecting a study subject. All three categories are associated with local governance.

The researcher directly solicited respondents for the questionnaire survey. The surveys were conducted by the researcher and his coworkers. This researcher was assisted by five Upazila Nirbahi Officers from the field administration in Bangladesh. Prior to the survey, they were instructed to gather information on the intellectual and social standing of a varied group. Following the collection of responses, the researcher conducted a manual examination of them. Conversations occurred at the respondents' workplaces or residences. The duration of the interviews ranged from 20 to 25 minutes.

This study involved conducting in-depth interviews with the respondents. The relationship between the interviewer and interviewee was straightforward and advantageous. This study employed a semi-structured questionnaire. Both open-ended and closed-ended questions were posed. The prepared questions served as a framework for the interview questions.

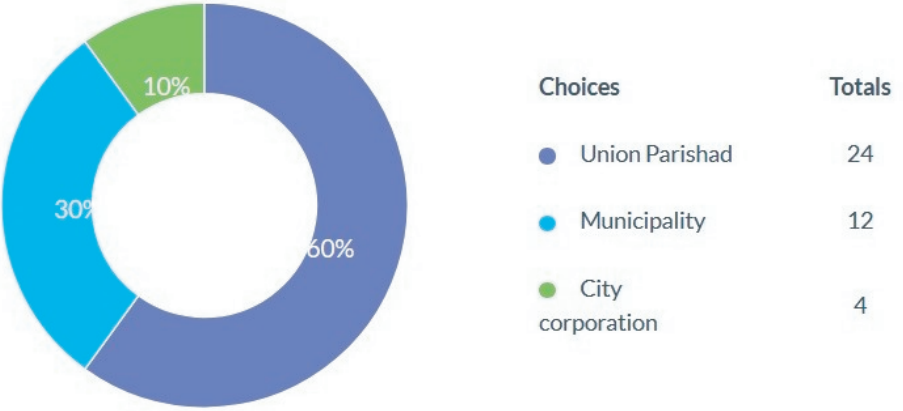
Qualitative data analysis is a complex process that involves interpreting information that cannot be simply measured or observed. However, with a strong grasp of the research questions, concepts, and theoretical and methodological foundations of the study, this analysis has been carried out effectively. This study analyzed data utilizing interpretive methodologies.

3. RESULTS

3.1 Survey on Local Residents

A total of 40 people were questioned in this category. Most residents were within the age bracket of 40 to 59 years. This is because the individuals surveyed are adult family members who are household leaders and have primary responsibility for paying various household expenditures. The educational qualifications of the respondents indicate that 42.5% of the individuals categorized as "Local People" lack formal education, while 37.5% have completed their higher secondary education. A total of 20% of the individuals have a college degree.

The survey result is shown below in the pie chart:



The survey revealed that 60% of the respondents were citizens residing in the lowest level Union Parishad. 30% were from the Municipality area, while 10% were from the City Corporation area.

Responses of the local residents to the close-ended questions

Question	Yes	No	Not sure
Is the Local Government Institution (LGI) effectively fulfilling its responsibilities?	9 (22.5%)	28 (70%)	3 (7.5%)
Is it anticipated that the LGIs would assume a greaterworkload in relation to the residents?	39 (97.5%)	1 (2.5%)	-
Do you regularly pay LGI tax and charges?	19 47.5%	21 52.5%	-
Does the LGI disseminate information to collect taxes?	12 (30%)	28 (70%)	-

What factors will serve as incentives for individuals to consistently fulfill their obligations in paying LGI taxes?

To answer this open ended question, the participants emphasized multiple points that improved development initiatives would serve as a strong incentive for them to fulfill their LGI tax obligations consistently. The demands for development activities vary

depending on the LGI where individuals reside. Union Parishad residents have expressed their concerns about improving the communication system and social safety net program. Residents of municipal and city corporations expressed the need for enhanced waste management, improved drainage systems, increased security lighting, and better service delivery, among other concerns. Commonly, they noted a deficiency in timely information.

3.2 Survey on for Local Government Representatives

For local government representatives, among the 30 respondents, 70% were Union Parishad Chairmen, 23.3% were Municipal Mayors and 6.7% were City Corporation Mayors.

Responses to the close-ended questions to the local government representatives

Question	Yes	No	Not Sure
Are you satisfied with the amount of money being collected in relation to the requiredbudget?	06 (20%)	24 (80%)	-
Is assessment done accurately?	07 (23.3%)	23 (76.7 %)	-
Do you think revenue collection can be increased?	29 (96.7%)	0	01 (3.3%)
Do you think outsourcing can be utilized in local tax collection?	18 (60%)	12 (40%)	-
Do you think central allocation should be increased?	30 (100%)	0	-

How frequently are property taxes assessed?

Based on the local government representatives' responses, assessments typically occur every five years. The majority of local government representatives responded similarly. Out of the 30 respondents, 4 indicated that the frequency was unspecified.

Any problems in the collection of local government tax?

Analysis to this open ended question reflects that the issues contributing to the error in the assessment include the absence of skilled and dedicated collectors, insufficient staff, low income of individuals, people's unwillingness to pay, and the lack of implementation of relevant laws. Additionally, there is a lack of awareness among the public regarding local taxes, a tradition of inexperience in making payments, and low or no collection of taxes by neighboring local government institutions. Furthermore, the analogue payment system and difficulties in making bank payments also pose challenges.

Can outsourcing be utilized in local tax collection?

The survey conducted among local government representatives revealed that 60% support outsourcing local revenue, while 40% oppose this idea. The majority of respondents who expressed outsourcing support were Union Parishad Chairmen. Union Parishads, as rural local government institutions at the grassroots level, primarily serve impoverished citizens and exhibit limited revenue collection capabilities.

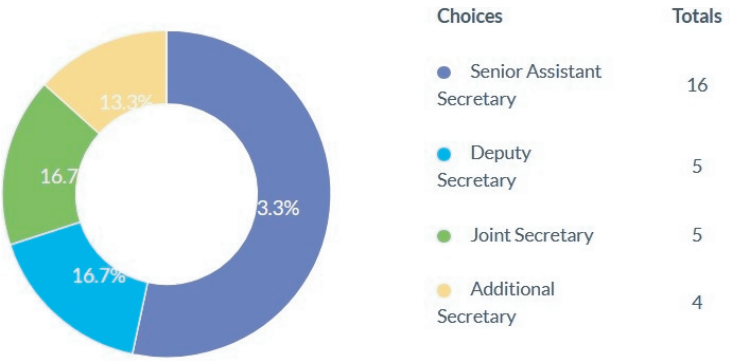
How can tax compliance be enhanced among people?

The respondents provided numerous suggestions in response to this question. The measures encompass the appointment of skilled tax assessors and collectors, regular staff training and capacity building, public awareness campaigns to promote tax compliance, information dissemination efforts, tax fairs, incentives for high-performing taxpayers, increased investment in development activities, digital revenue management, an efficient banking system, and enhanced transparency in social safety net programs.

3.3 Survey on the Bureaucrats

Among the 30 respondents in this category, 53.3% held the position of Senior Assistant Secretary, Deputy Secretary and Joint Secretary were both 16.7%, and 13.3% were Additional Secretary.

Bureaucrats demographic analysis



Do you see any problems in the collection of LGI taxes?

Several issues were identified as challenges in LGIs' tax collection. The identified issues include a lack of coordination and control at the highest level, a lack of commitment from all stakeholders, low-income levels in rural areas, insufficient dedication from local representatives, improper spending practices, a mindset focused on personal gain rather than public service, the presence of corrupt individuals in politics, shortages of staff, a lack of monitoring and oversight from higher authorities, and an excessive emphasis on political connections.

Questionnaire survey on the policy makers

Questionnaire	Yes	No	Not Sure
Is it possible to enhance revenue collection?	29 (93.5%)	-	01 (6.5%)
Can the utilization of outsourcing be applied to local tax collection?	19 (63.3%)	09 (30%)	02 (6.7%)
Is the addition of more workers sufficient to improve revenue collection?	01 (3.3%)	26 (86.7%)	03 (10%)
Should there be an increase in government allocation?	20 (66.7%)	10 (33.3%)	-
Should any tax item be transferred to the local governments to increase performance?	26 (86.7%)	04 (13.3%)	-

Any recommendations to increase local revenue collection?
Responses to this open-ended question were compiled as follows-

- Ensuring the accountability of local government representatives is crucial.
- Regular development work, active participation of citizens in budgeting, conducting open- air meetings, and promoting transparency are important measures to be taken.
- Consistent and accurate assessment.
- Increase public awareness of tax obligations.
- Eliminate political bias in government allocation.
- Improve the efficiency of tax collection.
- Increased income is expected to influence the tax payment behavior of residents.
- Capacity building of local governments is essential.

4. Discussion

Local government institutions in Bangladesh obtain financial resources through various channels. Upon close analysis of the functions specified in the laws and regulations, it is apparent that they encompass a wide array of responsibilities. This includes various activities such as birth registration, public health measures, law enforcement, regulation implementation, and disaster management. LGIs need adequate financial resources to function effectively. The government's main role is to create and enforce policies and provide oversight to local government representatives, even if the results are not always positive. The central government authorizes the budget of the local government.

A challenge arises from the government's inadequate allocation of funds to cover its various responsibilities. In FY 2017-18, the Local Government Division's development budget allocation constituted only 15.3% of the national budget. The data on local

revenue collection was sourced directly from original records within different local government entities. The data indicates that Narayanpur, a Union Parishad, had a very low revenue collection rate of 0.0007% in the fiscal year 2016-17. The Ministry of Finance (2017) reported that many Union Parishads also demonstrated a local revenue collection equivalent to around 5% of the total budget. When comparing Union Parishads to Municipalities and City Corporations, it is evident that the latter demonstrate relatively improved conditions, albeit still failing to meet expectations. In fiscal year 2017-18, the government allocated only 15.3% of the budget to local government and rural development.

The assessment and collection of local taxes are known for their intricate and time-consuming nature. Another important aspect is that the permanent personnel primarily engage in tax assessment and collection, limiting their availability for routine service delivery. Nevertheless, the existing system continues to rely on manual processes. Furthermore, the citizens' reluctance to pay municipal taxes can be attributed to this factor. The local government institutions in Bangladesh do not meet the expected standards when compared to revenue-collecting practices in other emerging and developed nations.

Most developing cities amassed a collection rate of 50% or higher. Noda et al. (2017) and Ullah et al. (2010) found that industrialized countries, including Tokyo, could generate a significant proportion of their revenue, up to 94.3%, from internal sources. There is potential for enhancing income collection and expenditure spending in local government institutions in Bangladesh. This study analyses the present condition of LGIs in Bangladesh and identifies multiple concerns. The factors contributing to the issue are insufficient funding from the central government, low levels of local revenue collection, inadequate training, and skills among assessors and collectors, resistance from residents to pay taxes, reluctance among LGI representatives to collect taxes, political interference from national political parties, and limited development at the local level.

The literature analysis suggests that local governments have various responsibilities and the ability to generate revenue as legislation mandates. To ensure the successful implementation of legal provisions, LGIs in Bangladesh must develop policy proposals and carry out essential reforms. Leonard et al. (2008) and Hossain (2004) argue that conducting a comparative analysis of policy adjustments made by different emerging and developed countries, compared to those made by Bangladesh, offers several advantages. Indonesia, Brazil, South Africa, and Tanzania were chosen for comparative analysis in terms of development, with Japan selected as a representative developed country. In Indonesia, policy restructuring began in 1985 with the implementation of two important laws, Law No. 22/1999 and Law No. 25/1999. The property tax appraisal process involves evaluating the value of the land. Regional tax offices of the central government conduct triennial appraisals. In rapidly developing areas, this evaluation is performed annually. Individual taxpayers make payments of taxes to a state financial institution division. Property taxes in Kenya are levied by the provisions outlined in

the Rating Act of 1986. The Kenyan constitution grants national and county governments authority to establish legislation enabling local assemblies to declare autonomous rates. A constitutional democracy is a hybrid form of government that incorporates principles of constitutionalism and democracy. This system involves the division of power between The South African governments implemented by the Local Government Transition Act 209 of 1993. The legislation mentioned earlier was improved after the release of the White Paper on Local Government in 1998 (Franzsen et al., 2011). Legislation governs the delineation of municipalities and the establishment of their organizational frameworks, operational protocols, and fiscal management.

Furthermore, legislation regulates property valuations, fiscal governance, and the operations of local governments. In Brazil, the property tax is imposed annually. Brazil has a fiscal code that outlines the tax base, tax liability, and exemptions related to the tax base. The assessment process entails the evaluation of actual value, which is carried out by local authorities. The real estate valuation team comprises diverse professionals, such as administrators, architects, civil engineers, economists, and undergraduate assistants, who work collaboratively to fulfil their responsibilities. Taxpayers are provided with invoices at the start of the fiscal year and can choose to pay the full amount or make multiple payments over a specified period (De Cesare et al. 1999). Tanzania that has recently enacted significant policy reforms. The purpose of this study is the potential use of outsourcing in local tax collection in Bangladesh has been influenced by the adoption of this practice by local governments in Tanzania (Fjeldstad et al, 2008). Article 94 of the Japanese constitution outlines the legal framework for local governance in Japan. The Japanese governance system adopted the Neo-Public Management system in the 1990s. Bangladesh enacted laws and rules about LGIs. But it is not imperative for the LGIs to implement those regulations which might be a reason of low revenue collection.

5. Recommendations

1. In order to establish a formal foundation for examining issues, it is recommended that the government, through the local government division or any relevant governmental body, undertake a comprehensive study and statistical analysis of local finance. This study should aim to identify local governments' challenges, with particular emphasis on mobilizing local revenue. It is important to devise a mechanism for the allocation of government grants.
2. Local government members should be encouraged through training and workshops to enhance their motivation in mobilizing additional local revenue. Choosing a highly trained and committed assessor is imperative to ensure a precise and comprehensive assessment.
3. The local government authorities have recognized low income among individuals as contributing to the low wages received by the residents. It is of utmost significance for the government to proactively undertake measures to augment employment and economic prospects in rural areas to bolster their income levels.

The implementation of incremental measures might catalyze motivating individuals to fulfill their tax obligations. Additionally, it is imperative to cultivate awareness among local citizens on the significance of tax contributions to local governments. Analysis of the questionnaire survey to the residents and local government representatives depicted that the inability and culture of unwillingness of the residents to pay taxes are greatly responsible for the low revenue collection of the LGIs. They put forward the lack of transparency, distrust in government, and competing financial priorities as reasons for their reluctance to pay taxes.

4. One significant factor contributing to the inadequate collection of local revenue is the reluctance of local government representatives to enforce tax collection, as they fear potential negative repercussions on their popularity in future elections. In this context, it is imperative to instigate a shift in the ideological stance of local government representatives about tax collecting. Some potential methods of motivation include recognizing the best collection within a given category through an award and providing the opportunity to allocate more central resources to collectors who demonstrate superior performance.
5. The government may consider implementing pilot programs on revenue collection in certain LGIs before scaling to a wider implementation. Based on academic research, it is possible to address and improve the working conditions of outsourced enterprises. In this context, it is pertinent to consider the outsourcing experiences of other Bangladeshi enterprises and the outsourcing experiences of local government institutions (LGIs) in other countries.
6. The government can also employ performance-based allocation schemes whereby LGIs that demonstrate superior performance in revenue collection will receive a greater allocation of cash from the central government. This measure could incentivize local government representatives to prioritize generating revenue from internal sources.
7. Several officials have proposed that implementing a system of rewards for regular tax payments and penalties for nonpayment might influence the taxpaying behavior of residents. This recommendation could also adopted.
8. Another option put up by the bureaucrats is the establishment of an online database containing information on the residents. Presently, LGIs lack a centralized database. Identifying defaulters under the current system presents a significant challenge. Establishing and maintaining an online database would streamline the process of identifying defaulters and initiating legal proceedings against them.
9. A key focus is examining the use of outsourcing as a strategy for enhancing local tax collection. Local politicians and bureaucrats were approached for their perspectives on the possible outsourcing of local income collection. 60% of local government officials have endorsed the outsourcing practice. The study's findings indicate that Union Parishad chairmen have indicated their endorsement of outsourcing due to their perceived deficiencies in money mobilization endeavors.

Bureaucrats supported outsourcing in around 63.3% of situations while voicing resistance in 30% of cases.

In the first instance, the government may opt to outsource the Union Parishads, which represent lower-level LGIs. If the program attains accomplishment, it can advance to more advanced levels such as the municipalities or the city corporations. Through rigorous academic investigation, it is feasible to ascertain the operational circumstances of outsourced firms. The concept suggests using third-party corporations or private sector groups to facilitate the collection of local taxes.

6. Conclusion

The current investigation has revealed some significant discoveries by examining the questionnaire survey. First and foremost, it is apparent that the revenue performance of local government institutions (LGIs) in Bangladesh is below expectations. All three groups of respondents unanimously agreed on the possibility of enhanced performance in revenue collection and service delivery by LGIs. The local government authorities have collectively agreed upon the inadequacy of their revenue collection position. Moreover, they put out alternative recommendations to augment the existing state of affairs. The authorities and the residents hold the common conviction that there is scope for enhancing income production and service delivery. The prevailing sentiment among the local population is that frequent payment of municipal taxes is deemed essential. Based on the aggregated feedback, it is evident that there exists a requirement for more improvements in the operational facets of LGIs. The primary aim of the study was to investigate the viewpoints of local people, government politicians, and bureaucrats on the execution of outsourcing in the domain of local tax collecting. Despite substantial variations in viewpoints, the participants from all categories generally recognized the potential efficacy of outsourcing in revenue collection.

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