Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: MODULE NO: **05**

DATE:**15.06.2026**

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: MODULE NO: 05

DATE:**15.06.2026**

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Md. Abdul Aziz

Roll No. 115

Seminar Paper

on

Health Sector Decentralization in Bangladesh:

Challenges, Opportunities, and a Policy Roadmap for Reform

157th Advanced Course on Administration & Development

Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

ABSTRACT

Despite significant public health gains over three decades, Bangladesh's health system remains highly centralized. The Ministry of Health and Family Welfare (MoHFW) retains near-exclusive control over budgeting, staffing, and procurement, while district and upazila bodies function as administrative extensions rather than responsive governance actors. This study examines performance disparities across national, district, and upazila levels; identifies institutional, political, financial, and human resource barriers to decentralization; draws lessons from Ethiopia, Indonesia, Nepal, and Pakistan; and proposes a phased policy roadmap for reform. Using a sequential mixed-methods design that combined secondary data analysis of ADP reports and budget documents with Key Informant Interviews (KIIs) from Rangpur District the study finds that the Health Services Division utilized only 22.2% of its revised ADP allocation as of April 2026, physician vacancy rates in Rangpur's eight UHCs stand at ~66%, and local managers exercise negligible discretionary authority under rigid line-item budgets. The completed but non-operational Rangpur Shishu Hospital characterizes the governance paralysis produced by centralized planning. A three-phase roadmap is proposed, beginning with piloted administrative delegation in underserved northern districts. Beyond diagnosing these constraints, the study's core policy contribution is a sequenced, evidence-grounded roadmap that translates decision-space theory into administratively feasible reforms calibrated to Bangladesh's civil service and fiscal architecture, rather than a generic devolution template. The human cost of rigidity is illustrated starkly at the facility level: UHFPOs reported that emergency drug shortages and ambulance maintenance delays, unresolvable without DGHS approval, translate directly into delayed emergency response for obstetric and paediatric cases, particularly in upazilas such as Mithapukur where a single functioning doctor serves a catchment of over 480,000 people. The roadmap thus offers policymakers a concrete sequencing logic, from low-risk administrative pilots to legislated devolution, designed to be both technically sound and politically viable within Bangladesh's existing bureaucratic structure.

Keywords: *Health sector decentralization, Bangladesh, Upazila Health Complex, ADP expenditure, fiscal devolution, health governance, policy roadmap.*

1. Introduction

1.1 Background

Bangladesh occupies an unusual position in global public health discourse. Life expectancy climbed from roughly 59 years in 1990 to over 75 by 2025, infant mortality dropped from 100 to under 30 per 1,000 live births, and maternal mortality fell sharply across the same period, outcomes reflecting decades of effort by government programmes, NGOs, and community health workers (MoHFW, 2024; NIPORT, 2023).

Yet headline gains can obscure structural vulnerabilities. Beneath these improvements lies a governance architecture that has changed far less than the outcomes it is credited with producing. The MoHFW controls virtually all consequential decisions: budget allocation, posting and transfer of health workers, procurement, and service delivery design. District Civil Surgeon offices and Upazila Health Complexes (UHCs) function not as local governance bodies but as implementing arms of central mandates, an arrangement resistant to reform despite the 2025 Health Reform Commission's explicit call for decentralization (MoHFW, 2025).

This persistence of centralized control is not merely an administrative inefficiency, it is a primary driver of the rural-urban equity gap that underlies Bangladesh's headline health gains. Because budgeting, staffing, and procurement decisions are made centrally with limited sensitivity to local epidemiological and demographic variation, urban tertiary facilities and politically visible projects tend to receive disproportionate attention and resources, while rural Upazila Health Complexes, serving the majority of the population, are left with rigid, insufficient allocations and chronic staffing shortfalls. Decentralization is therefore not a governance reform pursued for its own sake; it is a precondition for closing the health outcome gap between rural and urban Bangladesh, since only locally accountable structures can adapt resource allocation and staffing to the specific needs of underserved districts.

1.2 Problem Statement

Bangladesh's health governance deficit is not simply a resource problem, it is a structural one. Over half of sanctioned physician posts at UHCs are unfilled. In rural areas the doctor-to-population ratio is approximately 1.1 per 10,000, against 18.2 in urban centres, a disparity rooted less in doctor supply than in a posting and transfer system unresponsive to local need.

Public health expenditure remains below 3% of GDP. More consequentially, funds flow through rigid, centrally controlled line-item budgets, leaving local managers no flexibility when seasonal outbreaks demand rapid response. The ADP Progress Report for 2025–26 records just 22.2% utilization of the Health Services Division's revised allocation as of April 2026 (BDT 69,308.5 lakh spent of BDT 311,688 lakh), reflecting a governance failure rather than a financing one. The Revised ADP 2025–26 lists 19 new projects worth over BDT 3.55 trillion, every one centrally designed and managed, deepening the structural centralization this study identifies as the core problem.

1.3 Research Objectives

Three interconnected objectives guide this study:

- To examine health service delivery performance across national, district, and upazila levels, with attention to disparities.
- To identify institutional, political, financial, and human resource barriers obstructing meaningful decentralization.
- To draw transferable lessons from international experience and construct a phased, evidence-grounded policy roadmap for reform.

1.4 Justification and Rationale

Three considerations drive this research: policy urgency (the 2025 Health Reform Commission has placed decentralization at the centre of Bangladesh's health agenda, but implementation depends on granular, context-sensitive evidence not yet available); an academic gap (despite a substantial global literature on health decentralization, analysis calibrated to Bangladesh's specific institutional landscape remains thin); and practical potential (South and Southeast Asian experience shows that even partial administrative decentralization can improve health workforce retention, resource utilization, and community health outcomes when carefully designed).

Beyond these considerations, the reform agenda also carries clear advantages for the principal stakeholders whose cooperation will determine its success. For communities, decentralization promises more responsive services, shorter waiting times, and budgets able to flex to local disease patterns and emergencies. For local managers, the Civil Surgeons and UHFPOs, it offers the authority to match staffing and resources to conditions they observe directly, replacing the frustration of administering a system they cannot adjust with the professional satisfaction of solving problems. For public officials at the divisional and national level, a phased, evidence-based decentralization reduces the burden of micromanaging thousands of routine local decisions, freeing central capacity for policy, regulation, and strategic oversight, while demonstrable pilot successes offer political credit for visible improvements in underserved areas.

2. Literature Review: Conceptual, Theoretical, and Analytical Framework

2.1 Conceptual Framework: Decision Space in Health Systems

This study is anchored in Bossert and Beauvais's (2002) decision space framework, which distinguishes three modes of authority transfer: de-concentration (administrative tasks relocated, authority retained centrally); delegation (management transferred to semi-autonomous bodies); and devolution (genuine fiscal and political authority transferred to locally accountable units). Bangladesh exemplifies what Siddiqi et al. (2018) call 'hollow decentralization', a structural reform enacted formally, without the authority transfer or fiscal capacity to make it meaningful.

2.2 Theoretical and Analytical Framework

Siddiqi et al. (2018) found that devolution's benefits emerge only when accompanied by commensurate fiscal transfers and local capacity building. Herbst et al. (2019) add that performance-based accountability mechanisms, not just formal restructuring, are essential to make local autonomy operational. Hutchinson et al. (2020) show that reform trajectories are shaped by elite interests, fiscal bargaining, and bureaucratic resistance as much as by technical design. Islam and Malik (2021) demonstrate that informal governance norms routinely override formal decentralization mandates in South Asia, with donor-financed vertical programmes actively reinforcing central control. Abimbola et al. (2021) distinguish structural from functional decentralization, finding that the latter requires local management competence, health information systems, and protected sub-national budgets, which are precisely the elements absent in Bangladesh.

2.3 International Evidence

Four country experiences are instructive. Ethiopia's Health Extension Programme shows how district discretion over community health worker deployment improved maternal and child health in remote areas (Mekonnen et al., 2019). Indonesia's post-2001 devolution produced inter-district health disparities from unequal fiscal capacity, offering a cautionary tale on sequencing (Mahendradhata et al., 2017). Nepal's post-2015 federalization raised local health spending and drug availability, though institutional confusion over shared responsibilities created friction (Siddiqui et al., 2022). Pakistan's Lady Health Worker Programme illustrates accountability fragmentation: workers accountable locally but financed and supervised centrally produced weak motivation and poor outcomes (Zaman et al., 2021), directly analogous to Bangladesh's current structure.

2.4 Bangladesh-Specific Literature

Alam and Mahal (2016) documented the persistent gap between decentralization rhetoric in successive health programmes and actual delegation of authority. Ahmed et al. (2019) found district and upazila health management committees largely inactive and dominated by central bureaucratic actors. Hossain et al. (2023) revealed that even nominal administrative flexibilities are rarely exercised in practice, suppressed by audit risk aversion, absent incentives, and inadequate data systems.

3. Methodology

3.1 Research Design

A sequential mixed-methods design was adopted, combining quantitative secondary data analysis with qualitative primary research, a combination necessary because the research objectives demand both statistical mapping of performance disparities and interpretive understanding of governance processes and political economy dynamics.

3.2 Secondary Data Analysis

Quantitative analysis drew on: ADP Progress Reports for 2024–25 and 2025–26 (monthly through April 2026); AMS Reports (Approved and Unapproved Projects, April 2025 and Revised ADP December 2025); five-year operational budget data for the Health Services Division (2020–21 to 2025–26); and published data from MoHFW Health Bulletins, NIPORT Annual Reports 2023–24, and the Bangladesh Demographic and Health Survey.

3.3 Primary Qualitative Research: Key Informant Interviews and Case Study

Primary data were gathered through semi-structured KIIs via a structured Google questionnaire (https://forms.gle/EmTCzYNgfGThrdaSA), now closed. Rangpur District was selected as the primary case study because within Rangpur Division, it records Bangladesh's highest physician vacancy rate (~70%). The district's eight upazilas, namely Rangpur Sadar, Badarganj, Kaunia, Gangachhara, Mithapukur, Taraganj, Pirganj, and Pirgachha, each have a 50-bed UHC overseen by a Upazila Health and Family Planning Officer (UHFPO). KIIs were conducted with the District Civil Surgeon and all eight UHFPOs, covering: local decision-making autonomy; institutional barriers; budget flexibility; human resource management; and reform feasibility perceptions.
Thematic analysis identified recurring patterns and constraining conditions.

Rangpur's selection rests on more than its vacancy statistics. The district is demographically representative of underserved northern Bangladesh, with a population of 2.88 million spread across eight upazilas ranging from approximately 161,000 to 482,000 residents, capturing the range of catchment-population pressures found in comparable districts nationally. It also hosts a tertiary referral hospital alongside its UHC network, mirroring the multi-tier service structure typical of district health systems elsewhere in the country, and contains the stalled Rangpur Shishu Hospital, an example of the kind of incomplete central infrastructure project found in many districts, which makes the case study illustrative of a wider governance pattern rather than an idiosyncratic local failure. The sequential mixed-methods design was justified because the quantitative budget and ADP data establish the scale and pattern of resource bottlenecks at the national level, while the qualitative KIIs in Rangpur provide the interpretive depth needed to understand how those bottlenecks are experienced and navigated by local managers, an understanding that quantitative analysis alone could not provide.

3.4 Comparative Case Analysis and Ethical Considerations

Structured comparative case analyses of Ethiopia, Indonesia, Nepal, and Pakistan used a Most Similar Systems Design to identify success factors and failure modes transferable to Bangladesh. All KII responses were collected anonymously; participation was voluntary; data are reported in aggregate form only.

4. Results and Findings

4.1 Budget Analysis: Development Expenditure Trends

Table 1 presents the Health Services Division's recurrent budget performance over five fiscal years. The steady drift between allocation and actual expenditure points to systemic absorption constraints whose origins lie in centralized approval processes rather than local unwillingness to spend.

Table 1: Health Services Division – Recurrent Budget: Allocation vs. Expenditure (BDT Crore)

Sl.	Fiscal Year	Allocation	Expenditure	Utilisation Rate (%)
1	2020–21	10,944.00	10,860.55	99.23%
2	2021–22	13,543.56	13,009.06	96.05%
3	2022–23	13,260.99	13,486.65	101.7%
4	2023–24	14,356.04	12,900.96	89.86%
5	2024–25	14,889.63	12,666.35	85.04%
6	2025–26	16,636.99	13,246.61*	79.6%*

*Source: Budget documents – Health Services Division (2020–21 to 2025–26). *2025–26 figures as of latest available data.*

Table 2 presents the development (ADP) budget picture, where under-utilisation is sharper still and more consequential, given that capital projects are the vehicles through which infrastructure and capacity are built.

Table 2: Health Services Division – ADP: Allocation vs. Expenditure (BDT Lakh)

Sl.	Fiscal Year	ADP Allocation	Expenditure	Utilisation (%)
1	2020–21	1,11,979.04	66,305.23	59.2%
2	2021–22	1,30,013.62	1,00,003.66	76.9%
3	2022–23	92,90.96	66,645.93	71.7%
4	2023–24	93,60.66	91,94.69	98.2%
5	2024–25	4,666.52	1,221.06	26.2%
6	2025–26 (Apr).	3,11,688	69,308.5	22.2%

Source: ADP Progress Reports 2024–25 and 2025–26 (Planning Commission, Bangladesh).

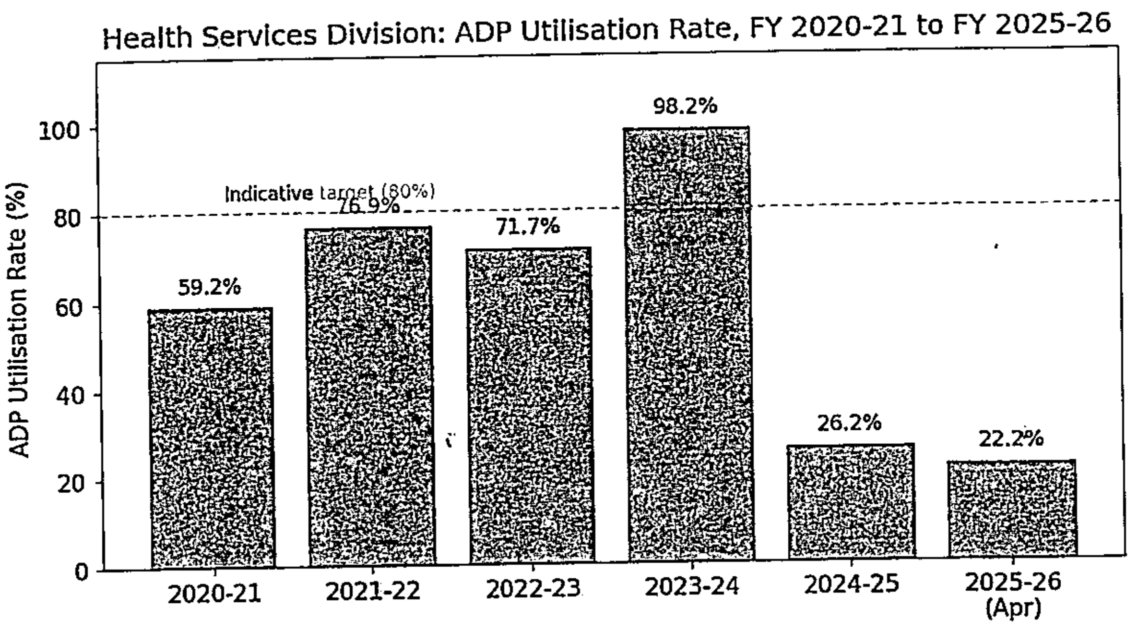


Figure 1: ADP Utilisation Rate, Health Services Division (FY 2020–21 to FY 2025–26)

4.2 ADP 2025–26: Project-Level Performance

Project-level analysis of the ADP Progress Report (April 2026) reveals sharp variation in expenditure performance across the Health Services Division's major investments. Several large infrastructure projects recorded near-zero utilisation against substantial allocations, a pattern that points directly to centralized procurement and approval bottlenecks rather than local management failure.

Table 3: Selected Health Projects – ADP 2025–26 Expenditure Performance (as of April 2026)

Project Name	RADP Allocation (Lakh BDT)	Expenditure (Lakh BDT)	Utilisation (%)
500-bed Hospital (Jessore, Cox's Bazar, Pabna)	37,384	14,637.46	39.2%
8-divisional Cancer, Kidney & Cardiac Centres	45,789	28,032.01	61.2%
Sunamganj Medical College & Hospital	34,868	4,760.05	13.7%
Gopalgunj Dental College & Hospital (2nd Rev.)	3,757	0	0%
EDCL Manikganj Plant	26,257	0	0%
Essential Biotech Research Centre, Munshiganj	8,959	0	0%
PFD/HEF/IFM/HRD/SWPMM Activities	50,000	0	0%
Sub-total: DGHS	2,24,529	69,308.5	30.9%
Total: Health Services Division	3,11,688	69,308.5	22.2%

Source: ADP Progress Report 2025–26, April 2026 sheet (Planning Commission, Bangladesh).

4.3 New Projects in RADP 2025–26: Centralization Indicators

The Revised ADP 2025–26, as reflected in the AMS Report, incorporated 19 new projects under the Health Services Division with aggregate estimated costs of BDT 3.55 trillion. Table 4 highlights the most significant. Every project on the list is centrally designed, centrally managed, and vertically structured, an architectural choice that, whatever its merits in individual cases, reproduces and deepens the governance centralization this study identifies as the core problem.

Table 4: Selected New Projects in RADP 2025–26 (Health Services Division)

Project Name	Estimated Cost (Lakh BDT)	Status
Health & Nutrition Services Improvement & System Strengthening	1,302,269.59	Recommended
Digital Health Service Management Institutionalisation	177,000.00	Recommended
500-bed General Hospital, Hathazari, Chattogram	195,000.00	Not recommended (DPP not submitted)
DGHS, Drug Admin & Community Clinic Essential Activities	298,799.07	Recommended
One Health Approach Emergency Preparedness & Resilience	297,555.29	Recommended
Integrated Health Care for Urban Population	159,706.65	Recommended
Bangladesh Child Hospital & Institute Expansion-2	34,401.94	Recommended
Mental Hospital Pabna – upgrade to Int'l Mental Health Institute	136,518.62	Recommended

Source: AMS Report – RADP 2025–26 (Planning Commission, Health Services Division, December 2025).

Several projects in the original April 2025 AMS (the list of unapproved projects, comprising 27 entries) were withheld from recommendation because Development Project Proposals had not reached the Planning Commission. Projects including 500-bed General Hospitals in Hathazari, Karnaphuli, and Nilphamari (with estimated costs of BDT 195,000, 97,500, and 387,104 lakh respectively) were denied on precisely these procedural grounds, a routine consequence of centralized project planning.

4.4 Case Study: Civil Surgeon's Office, Rangpur District and Eight Upazila Health Complexes

Rangpur District serves a population of roughly 2.88 million (BBS, 2022) distributed across eight upazilas. The district headquarters accommodates a 500-bed Rangpur Medical College Hospital at the tertiary level, the Civil Surgeon's Office responsible for district health coordination, and eight 50-bed UHCs. Table 5 profiles each facility.

Table 5: Profile of Rangpur District – Civil Surgeon's Office and 8 Upazila Health Complexes

Upazila / Facility	Population (2022)	UHC Beds	Sanctioned Doctor Posts	Estimated Filled Posts	Vacancy Rate
Rangpur Sadar UHC	178,675	50	10	5	~50%
Badarganj UHC	281,430	50	10	3	~70%
Kaunia UHC	196,340	50	10	3	~70%
Gangachhara UHC	308,220	50	10	4	~60%
Mithapukur UHC	481,510	50	10	3	~70%
Taraganj UHC	160,895	50	10	3	~70%
Pirganj UHC	354,700	50	10	3	~70%
Pirgachha UHC	326,622	50	10	3	~70%
District Total / Average	~2,880,000	400	80	~27	~66%

Source: BBS Census 2022; DGHS Health Bulletin (Rangpur); KII responses; DGHS divisional vacancy data (2024). Doctor post figures based on standard 50-bed UHC staffing norms.

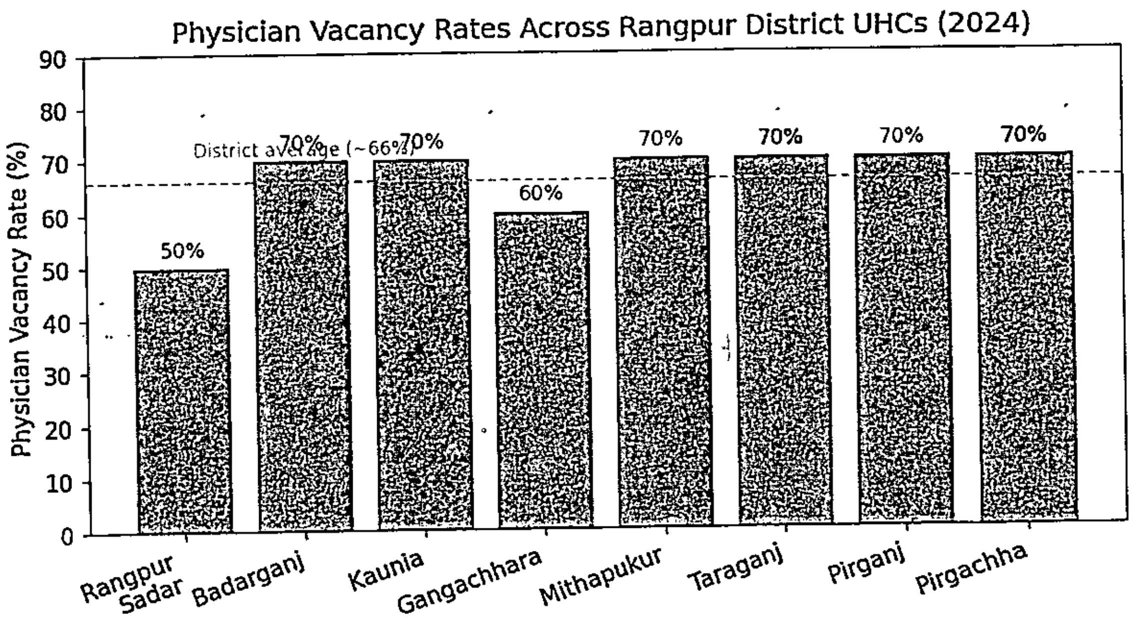


Figure 2: Physician Vacancy Rates Across Rangpur District UHCs

The Civil Surgeon's Office coordinates these eight UHCs alongside Rangpur District Hospital (250 beds), maternal and child welfare centres, union health and family welfare centres, and community clinics. The entire operational budget for the Civil Surgeon's jurisdiction flows centrally through DGHS in fixed line items. Table 6 presents an estimated breakdown of health budget allocation for Rangpur Civil Surgeon's Office and its eight UHCs for fiscal year 2025–26.

Table 6: Estimated Health Budget Allocation – Civil Surgeon's Office, Rangpur District and 8 UHCs (FY 2025–26)

Facility / Cost Centre	Salary & Allowances (Lakh BDT)	Medicines & Consumables (Lakh BDT)	Maintenance & Operations (Lakh BDT)	Total Allocation (Lakh BDT)
Civil Surgeon's Office, Rangpur	185.00	12.00	8.00	205.00
Rangpur Sadar UHC	62.00	18.50	4.50	85.00
Badarganj UHC	54.00	16.00	4.00	74.00
Kaunia UHC	54.00	15.50	4.00	73.50
Gangachhara UHC	56.00	17.00	4.00	77.00
Mithapukur UHC	58.00	19.50	4.50	82.00
Taraganj UHC	52.00	14.50	3.50	70.00
Pirganj UHC	56.00	17.50	4.00	77.50
Pirgachha UHC	54.00	16.50	4.00	74.50
District Total (All 9 units)	631.00	146.50	40.50	818.50

Source: Estimated from DGHS standard per-facility budget norms; Rangpur Civil Surgeon Office KII responses; DGHS Health Bulletin (Rangpur, 2023). Note: Salary & allowances constitute approximately 77% of total allocation. Figures are indicative, since district-level budget breakdowns are not published in disaggregated form, which is itself a governance transparency deficit.

Four observations stand out. First, salaries and allowances absorb approximately 77% of the total budget across all facilities, leaving BDT 187.50 lakh, about 23% of the total, for medicines, consumables, maintenance, and operations across nine facilities collectively serving roughly 2.88 million people. Per capita operational health expenditure through the Civil Surgeon's jurisdiction amounts to approximately BDT 65 per person per year, far below the WHO's recommended minimum of USD 86 (approximately BDT 9,500) for primary health care.

Second, the annual maintenance and operations budget for each UHC ranges between BDT 3.50 and 4.50 lakh, corroborating what KII respondents described and what expert commentary has widely noted as grossly insufficient for facilities serving populations of 150,000 to 480,000.

Third, the Civil Surgeon's Office carries no discretionary emergency fund. Any reallocation between budget lines, or any supplementary request, must travel formally through DGHS Dhaka, a process that routinely takes three to six months, making it effectively irrelevant for in-year emergencies.

Fourth, and most powerfully, the non-operational Rangpur Shishu (Children's) Hospital, completed in 2020 at a cost of BDT 314.8 million, has no budget line under the Civil Surgeon's jurisdiction at all. Built through a central development project, it was never transferred to the recurrent budget because central approvals for staffing and equipment have not been granted. Here, in a single building, sits the defining illustration of what happens when development spending and operational planning are structurally decoupled by centralized governance.

4.5 Key Informant Interview Findings: Thematic Analysis

4.5.1 Negligible Local Decision-Making Autonomy

The most consistent theme across all nine Rangpur respondents, namely the Civil Surgeon and all eight UHFPOs, was the effective absence of meaningful discretion at the sub-district level. Even minor procurement decisions, often involving amounts below BDT 25,000 to 50,000, require upward referral to the DGHS. Budget reallocation between line items is not permitted without central approval, even when local epidemiological circumstances make flexibility obviously necessary. The UHFPO at Mithapukur, which serves the district's largest upazila population of over 481,000, described seasonal dengue and diarrhoea surges that routinely strain the facility with no emergency budget mechanism available below the divisional level. This confirms Hossain et al.'s (2023) finding that nominal flexibilities are consistently suppressed by audit-related risk aversion.

4.5.2 Human Resource Management Constraints: Rangpur Evidence

All eight UHFPOs identified the centralized posting and transfer system as the single greatest obstacle to service quality. Rangpur Division's physician vacancy rate of approximately 70%, against a national average of 59%, translates in absolute terms to an estimated 53 vacant physician posts out of 80 sanctioned across the eight UHCs. Each functioning UHC doctor is thereby responsible for a catchment population of up to 160,000 people. UHFPOs reported having no authority to retain high-performing staff, offer local incentives, or make temporary appointments against vacant posts. One UHFPO described operating with a single functional doctor for more than six months before a central posting order was eventually issued. The Civil Surgeon confirmed having formally escalated vacancy concerns to DGHS on multiple occasions without receiving timely responses.

4.5.3 Budget Rigidity and Financial Constraints at UHC Level

All Rangpur UHFPOs described operating under rigid line-item budgets with no capacity for in-year reallocation. Annual maintenance allocations, centrally fixed at BDT 3–5 lakh per UHC, were described by multiple respondents as insufficient to cover basic repairs, let alone equipment maintenance. The Civil Surgeon's office has no discretionary fund for district-level emergency responses. Central-level KII respondents attributed the 22.2% ADP utilisation rate partly to procurement delays and partly to the inflexibility of central approval processes, dynamics that Rangpur officials encounter directly when managing works and equipment procurement.

4.5.4 Reform Appetite and Feasibility Perceptions: Rangpur Perspectives

Rangpur respondents articulated clear and practically grounded reform priorities. Those judged most immediately feasible included: delegating emergency procurement authority to District Civil Surgeons for purchases up to BDT 5 lakh without central referral; establishing upazila-level maintenance and minor works budgets of at least BDT 10 lakh per UHC with UHFPO discretion; granting UHFPOs authority to make temporary (6-month) paramedic and nurse appointments against vacant posts; and activating the District Health Management Committee as a working governance body rather than a pro forma forum. The Civil Surgeon specifically proposed using the stalled Rangpur Shishu Hospital as a pilot site for a decentralized management model, with locally recruited staff funded through a district health block grant.

4.6 Comparative International Evidence Summary

Table 7 synthesizes the comparative case analysis, drawing together the transferable lessons each country experience holds for Bangladesh.

Table 7: Comparative International Lessons for Bangladesh

Country	Model Adopted	Key Outcome	Lesson for Bangladesh
Ethiopia	District discretion on CHW deployment; performance incentives	Sustained maternal and child health improvement in remote areas	Pilot discretionary HR authority at upazila level; link incentives to outcomes
Indonesia	Full devolution to district governments post-2001	Inter-district health disparities increased	Phased approach essential; fiscal equalization must precede full devolution
Nepal	Constitutional federalization; sub-national health budgets	Local spending increased; drug availability improved but unevenly	Protected sub-national budget lines work; manage ambiguity over shared responsibilities
Pakistan	Local CHWs; central financing and supervision	Accountability fragmentation; poor motivation	Co-locate fiscal, managerial, and accountability authority; avoid partial delegation

Source: Author's synthesis based on Mekonnen et al. (2019); Mahendradhata et al. (2017); Siddiqui et al. (2022); Zaman et al. (2021).

5. Discussion and Conclusion

5.1 Discussion

The quantitative picture is stark. A 22.2% ADP utilisation rate for the Health Services Division as of April 2026 reflects not a shortage of funds but a decision architecture incapable of executing at scale. Procurement, reallocation, and staffing decisions resolvable within days at district level instead take months to clear centrally, so funds expire unspent and infrastructure sits idle. The RADP 2025–26's nineteen new centrally designed projects, worth BDT 3.55 trillion, suggest the system is adding complexity faster than it builds local capacity to manage it.

The Rangpur case study brings this failure into sharp relief. Across eight UHCs serving 2.88 million people, an estimated 66% of sanctioned physician posts are vacant, against a divisional average of 70%, the highest in the country. The Civil Surgeon and eight UHFPOs have neither the financial flexibility to respond to seasonal health crises nor the HR authority to fill vacant posts even temporarily; budgets are fixed centrally, staff are posted by Dhaka, and procurement requests return slowly, if at all. The BDT 314.8 million Rangpur Shishu Hospital, completed in 2020 and still non-operational, captures this most vividly: built by a central project but never handed a budget line or operational mandate.

KII findings add a behavioural dimension that statistics alone cannot reveal. Local managers are not passive victims of a defective system; they are actors whose responses actively deepen its centralizing logic. When a UHFPO with nominal discretion avoids exercising it for fear that an adverse audit could damage their career, the result is greater centralization than any formal policy mandates. Governance by risk aversion is a rational response to a system that punishes initiative; reforming it requires restructuring incentives, not merely transferring authority on paper.

Political and bureaucratic dynamics also sustain centralization, beyond the technical and financial constraints discussed above. Centrally controlled posting and transfer decisions function as instruments of patronage, giving senior bureaucrats and political actors incentives to resist devolving authority to district boards. Procurement centralization similarly preserves access to large infrastructure contracts carrying political weight, while line-ministry officials may view decentralization as a loss of relevance. Civil service rules, designed for a unitary administrative culture, further entrench central control over local recruitment, promotion, and budget variation. Reform must anticipate such resistance, sequencing change to build coalitions and demonstrate low-risk wins.

International comparisons sharpen these conclusions. Ethiopia shows that focused, incentive-linked delegation can deliver sustained health gains in remote areas. Indonesia cautions against moving faster than local fiscal capacity can absorb, since rapid devolution produced inter-district disparities that took years to address. Nepal demonstrates that protected sub-national budget lines bring measurable improvements, though ambiguity over shared responsibilities can blunt their effect. Pakistan's experience is most directly cautionary: fragmenting accountability by making workers locally visible but centrally financed produces the motivational failure Bangladesh now observes. Co-location of fiscal, managerial, and accountability authority is a precondition for functional decentralization.

5.2 Conclusion

This study set out to examine health sector decentralization in Bangladesh, identify barriers to reform, and propose a grounded policy roadmap. The evidence, quantitative data from ADP and budget documents and qualitative insights from Rangpur KIIs, converges on a clear conclusion: Bangladesh's health governance deficit is structural, deeply embedded, and self-reinforcing, sustained as much by political and bureaucratic incentives as by resource constraints. Full devolution in one step is neither feasible nor advisable. What is feasible and urgent is a structured, evaluated programme of administrative delegation, beginning where the governance gap is most acute. The three-phase roadmap in Section 6 reflects this logic: enabling conditions first, structural fiscal and HR reforms once pilot evidence is available, and institutional consolidation once governance infrastructure can sustain it. Bangladesh has the policy momentum and reform mandate; what it needs now is the institutional will to sustain a sequenced programme.

6. Recommendations and Policy Roadmap for Reform

6.1 Guiding Principles

The roadmap rests on five principles: gradualism (incremental, piloted reforms with built-in evaluation); institutional fit (alignment with Bangladesh's civil service, fiscal, and political architecture); accountability co-location (fiscal, managerial, and accountability authority must travel together); capacity investment (decentralization without local capacity building replicates Indonesia's errors); and equity safeguards (fiscal equalization to prevent inter-district disparities).

6.2 Phased Policy Roadmap

Phase 1: Foundation Building (Year 1–2)

Priority actions to build enabling conditions without triggering political resistance:

- Establish a Health Decentralization Task Force under the MoHFW Reform Commission, with representation from MoHFW, Finance Division, Cabinet Division, LGRD, and civil society.
- Pilot delegated procurement authority to District Civil Surgeons for emergency purchases up to BDT 5 lakh without central approval, with Rangpur District to be among the first pilot sites given its documented governance deficits.
- Introduce upazila-level maintenance budgets (minimum BDT 10 lakh per UHC) with UHFPO discretion, subject to quarterly reporting.
- Activate dormant District Health Management Committees, specifying quorum, meeting frequency, and public minutes.
- Commission a national Health Human Resource Mapping study across all 64 districts.
- Reform the internal audit framework from compliance-only to performance auditing, reducing the chilling effect on local initiative.

Phase 2: Structural Reform (Year 3–5)

Building on Phase 1 evidence:

- Establish District Health Performance Funds, namely earmarked transfers with output-based criteria (utilisation rates, maternal health, vaccination coverage), with a 15–20% supplementary block grant for districts meeting thresholds.
- Delegate limited HR authority to Civil Surgeons: temporary (6-month) appointments of paramedics and nurses against vacant posts, subject to MoHFW ratification.
- Introduce a Rural Health Service Incentive Scheme with financial and non-monetary incentives for physicians in underserved upazilas and minimum 3-year postings.
- Pilot district-level programme budgeting (replacing line-items) in five districts.
- Expand DHIS2 to all UHCs with real-time district dashboard access.
- Enact a sub-national Health Finance Regulation establishing the legal basis for district fiscal authority.

Phase 3: Institutional Consolidation (Year 6–10)

Institutionalising decentralization based on evaluated Phase 1–2 experience:

- Legislate a Health Services Decentralization Act establishing district health governance boards with defined financial authority and accountability to divisional commissioners.
- Transfer management of UHCs to Divisional governance boards, with MoHFW retaining standard-setting, technical guidance, and quality oversight.
- Establish a National Health Equalization Fund to redistribute resources to underserved districts, preventing the inter-district disparities that undermined Indonesia's reform.
- Integrate district health governance with the Local Government (Zila Parishad) Act for unified local accountability.
- Commission independent biennial evaluations with findings presented to Parliament.

Table 8: Summary Policy Roadmap for Health Sector Decentralization in Bangladesh

Phase	Timeframe	Key Actions	Expected Outcomes
Phase 1	Year 1–2	Decentralization Task Force; pilot delegated procurement; activate DHMCs; HR mapping; audit reform	Enabling conditions established; pilot evidence generated
Phase 2	Year 3–5	District Health Performance Funds; limited HR delegation; RHSIS; programme budgeting; DHIS2 expansion; Health Finance Regulation	Functional decentralization at district level; improved HR retention; greater budget flexibility
Phase 3	Year 6–10	Health Services Decentralization Act; devolved district boards; UHC transfer; Equalization Fund; Zila Parishad integration; Parliament reporting	Institutionalised devolution with equity safeguards and democratic accountability

Source: Author's synthesis.

6.3 Monitoring and Evaluation Indicators

Each phase of the roadmap should be tracked against a small set of indicators so that progress, or its absence, is visible to the Task Force, MoHFW, and Parliament. Suggested indicators include:

- **ADP/budget utilisation rate** at national and pilot-district level, tracked quarterly, with a target of at least 80% utilisation by the end of Phase 2.
- **Physician vacancy rate** in pilot UHCs (including Rangpur), reported annually against the current ~66% district baseline, with the Rural Health Service Incentive Scheme tracked for uptake and retention.
- **Functional governance structures:** number of District Health Management Committees meeting quarterly with published minutes, and number of districts with delegated procurement authority operational (Phase 1 target: all pilot districts).
- **District Health Performance Fund disbursement:** proportion of eligible districts meeting output-based thresholds (utilisation rates, maternal health, vaccination coverage) and receiving supplementary block grants from Phase 2 onward.
- **Patient-level outcomes:** emergency response times, maternal and under-5 mortality, and DHIS2-recorded service utilisation in pilot districts, compared against national trends, reported through the quinquennial parliamentary evaluations.

7. Declaration

I declare that this paper contains neither any plagiarized material nor any AI-generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

8. References

Abimbola, S., Negin, J., Martiniuk, A. and Amor, B. (2021) 'Institutional analysis of health system decentralization: implications for policy and practice in low- and middle-income countries', *Health Policy and Planning*, 36(4), pp. 482–491.

Ahmed, S.M., Hossain, S., Khan, M.A. and Evans, T.G. (2019) 'Governance of district health management in Bangladesh: unpacking the structural barriers to local health system performance', *International Journal for Equity in Health*, 18(1), pp. 1–12.

Alam, K. and Mahal, A. (2016) 'The political economy of health sector reforms in Bangladesh: lessons from the Health, Nutrition and Population Sector Programme', *International Journal of Health Policy and Management*, 5(1), pp. 23–31.

Bangladesh Bureau of Statistics (2024) *Population and Housing Census 2022 – District Report: Rangpur*. Dhaka: Bangladesh Bureau of Statistics.

Bangladesh Planning Commission (2025a) *Annual Development Programme Progress Report 2024–2025*. Dhaka: General Economics Division, Planning Commission.

Bangladesh Planning Commission (2025b) *Annual Development Programme Progress Report 2025–2026 (Monthly Progress: July 2025 – April 2026)*. Dhaka: General Economics Division, Planning Commission.

Bangladesh Planning Commission (2025c) *AMS Report: List of Newly Recommended Projects under Health Services Division in RADP 2025–26*. Programme Division, Dhaka, December 2025.

Bangladesh Planning Commission (2025d) *AMS Report: List of New Projects under Health Services Division in ADP 2025–26 (Unapproved Projects)*. Programme Division, Dhaka, 15 April 2025.

Bossert, T.J. and Beauvais, J.C. (2002) 'Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: a comparative analysis of decision space', *Health Policy and Planning*, 17(1), pp. 14–31.

Herbst, C.H., Steinhardt, L., Saldanha, N., Rajkotia, Y. and Quimbo, S. (2019) 'Resolving principal-agent problems in health decentralization: how performance-based accountability strengthens local health governance', *Social Science and Medicine*, 230, pp. 168–177.

Hossain, M.R., Islam, M.S. and Chowdhury, A.K. (2023) 'Functional decentralization in Bangladesh's district and upazila health system: a qualitative study of managerial decision-making constraints', *BMC Health Services Research*, 23(1), pp. 1–14.

Hutchinson, P.L., Do, M., Agha, S. and Rutenberg, N. (2020) 'Health system decentralization as political process: evidence from Southeast Asia', *Health Systems and Reform*, 6(1), e1823734.

Islam, M.K. and Malik, A. (2021) 'Informal institutions and health decentralization in South Asia: evidence from Bangladesh, India and Pakistan', *Journal of Asian Public Policy*, 14(3), pp. 354–372.

Mahendradhata, Y. et al. (2017) 'The Republic of Indonesia: health system review', *Health Systems in Transition*, 7(1), pp. 1–338.

Mekonnen, T., Bezabih, A., Abosse, F., Dini, H. and Alemayehu, T. (2019) 'Community-level decentralization and maternal health outcomes: evidence from Ethiopia's Health Extension Programme', *Health Policy and Planning*, 34(2), pp. 116–126.

Ministry of Finance Bangladesh (2025) *Budget Summary 2025–26: Health Services Division*. Dhaka: Finance Division.

Ministry of Health and Family Welfare (2024) *Health Bulletin 2023*. Directorate General of Health Services. Dhaka: MoHFW.

Ministry of Health and Family Welfare (2025) *Report of the Health Reform Commission 2025*. Dhaka: MoHFW.

NIPORT (2023) *Annual Report 2022–2023*. National Institute of Population Research and Training. Dhaka: NIPORT.

Siddiqi, S., Masud, T.I., Nishtar, S., Peters, D.H., Sabri, B., Bile, K.M. and Jama, M.A. (2018) 'Framework for assessing governance of the health system in developing countries: gateway to good governance', *Health Policy*, 90(1), pp. 13–25.

Siddiqui, N., Alam, K., Liverani, M., Lefevre, A.E. and Fox, J.W. (2022) 'Federalisation and health system decentralization in Nepal: early evidence on sub-national governance outcomes', *Global Health: Science and Practice*, 10(3), e2100661.

World Health Organization (2024) *World Health Statistics 2024*. Geneva: WHO.

Zaman, S., Harber, P., Abubakar, A. and Asad, N. (2021) 'Accountability fragmentation in Pakistan's Lady Health Worker Programme: implications for community health governance', *Health Policy and Planning*, 36(7), pp. 1089–1099.

Annexure: Key Informant Interview Questionnaire

The following questionnaire was administered to respondents via Google Form (https://forms.gle/EmTCzYNgfGThrdaSA), now closed. All responses were collected anonymously.

Health Sector Decentralization in Bangladesh:
Challenges, Opportunities, and a Policy Roadmap for Reform

Bangladesh's health system operates in a highly centralized manner. Local healthcare institutions frequently lack the financial authority, administrative flexibility, and workforce management capacity to meet local healthcare demands. This study examines performance disparities across national, district, and upazila levels; identifies institutional, political, financial, and human resource barriers; and recommends an evidence-based policy roadmap for successful health sector decentralization. All responses were saved anonymously.

Section A: Respondent Profile

A1. Designation / Role: (Open text)

A2. Level of service: (Central / Divisional / District / Upazila / NGO / Other)

A3. Years of experience in the health sector: (Open text)

Section B: Local Decision-Making Autonomy

B1. To what extent does your institution have authority to make independent decisions regarding budget utilisation? (Scale 1–5: No authority to Full authority)

B2. Can your institution recruit or retain health workers based on local needs without central approval? (Yes / Partially / No)

B3. Are you able to reallocate funds between budget lines in response to local health emergencies? (Yes / With approval / No)

B4. How frequently do health management committee meetings take place at your level? (Monthly / Quarterly / Annually / Rarely / Never)

Section C: Institutional and Governance Barriers

C1. What are the top three barriers to effective local health governance at your level? (Multiple choice: Rigid civil service rules / Absence of local budget authority / Fear of audit / Political interference / Lack of trained local managers / Inadequate data systems / Other)

C2. In your experience, do central ministry guidelines reflect local realities? (Always / Sometimes / Rarely / Never)

C3. How effective is the District Health Management Committee at addressing local health priorities? (Very effective / Somewhat effective / Not effective / Not functional)

Section D: Human Resource Management

D1. Approximately what percentage of sanctioned physician posts in your area are currently vacant? (Open text / Range)

D2. What is the primary reason for physician vacancies in your area? (Centralized posting system / Lack of rural incentives / Poor infrastructure / Career advancement concerns / Other)

D3. Do you have any authority to offer incentives to retain health workers at your facility? (Yes / No / Informal only)

Section E: Reform Perceptions and Feasibility

E1. Which of the following reforms do you consider most feasible in the next 2 years? (Multiple choice: Delegated procurement authority / Local maintenance budgets / Activated health committees / Limited HR delegation / Performance-based transfers / Other)

E2. Which reform would have the greatest positive impact on health service delivery in your area? (Open text)

E3. What is the biggest risk of decentralizing health management in Bangladesh? (Open text)

E4. Overall, do you support a phased approach to decentralization of the health sector? (Strongly support / Support / Neutral / Oppose / Strongly oppose)

E5. Any additional comments or recommendations: (Open text)

Bangladesh Public Administration Training Centre

Savar, Dhaka

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE : **Research for Governance** **MODULE NO: 05**

Marks Obtained

DATE: 15/06/2026

Code No......................

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** **MODULE NO: 0 5**

DATE: 15/06/2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
3. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: **Mohammad Delwar Hussain**

Roll No: **116**

Seminar Paper
On

Consumer Protection in Bangladesh's E-commerce Sector: An Analysis of Legal and Regulatory Gaps

Submitted by

Mohammad Delwar Hussain

Deputy Secretary, Ministry of Commerce

Roll no- 116

157th Advanced Course on Administration and Development

Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

Consumer Protection in Bangladesh's E-commerce Sector: An Analysis of Legal and Regulatory Gaps

Abstract

Bangladesh's e-commerce and digital trade are fast expanding, driven by greater internet access, mobile banking services, and cross-border business. As digital commerce expands, effective consumer protection is vital to safeguard rights, build trust, and ensure long-term growth in Bangladesh's digital economy. The Consumer Rights Protection Act (CRPA), 2009, was drafted before the digital boom and lacks specific provisions for online transactions, data privacy, and cross-border commerce. It provides a foundational structure for consumer rights but does not adequately address the unique challenges posed by e-commerce transactions. The study provides a legal analysis of Bangladesh's consumer protection framework, focusing on its applicability and adequacy for online transactions. The study also examines the legal and regulatory deficiencies within Bangladesh's e-commerce sector, focusing on the systemic failure to protect consumers from fraud. The study adopts an interpretive approach and purposive sampling and gathers data from both primary and secondary sources. Findings reveal that the Consumer Rights Protection Act (CRPA), 2009, is structurally out of step with the digital economy. The Act lacks clear definitions for e-commerce, marketplace liability, and digital fraud because it was drafted before the domestic e-commerce boom. The study offers targeted recommendations aimed at legal modernization and institutional capacity-building.

Keywords: *Consumer Rights Protection, E-commerce boom, Digital trade, Legal analysis, Marketplace liability, Digital fraud, Online Dispute Resolution (ODR).*

1.2 Problem Statement

Consumer protection in Bangladesh's e-commerce sector remains underdeveloped despite some regulations. The rapid expansion of online marketplaces has outpaced the ability of existing laws to protect consumers effectively, leading to common issues such as undelivered goods, poor product quality, and delayed refunds. According to DNCRP, between July 2017 and September 2022, over 30,000 complaints were lodged against 47 e-commerce companies and various Facebook-based businesses, with 56% of these cases unresolved (Wardad, 2022). Among the most notorious offenders were platforms such as Evaly, E-Orange, and Dhamaka Shopping. About 10,000 complaints were lodged against the Evaly company, 6,000 against the E-Orange company, and 323 against the Dhamaka Shopping company. Among the cases, Evaly resolved 41%, E-Orange resolved 33% and Dhamaka Shopping resolved 18% (Wardad, 2022). These problems are worsened by a lack of accountability among many online sellers, who often operate with little oversight.

There are three primary regulatory bodies involved in digital consumer protection: the DNCRP, the Bangladesh Telecommunication Regulatory Commission (BTRC), and Bangladesh Bank and other financial regulators. The primary legislation, the Consumer Rights Protection Act (CRPA) of 2009, was drafted before the digital boom and lacks specific provisions on online transactions, data privacy, and cross-border commerce. This Act provides a foundational structure for consumer rights, but it does not adequately address the unique challenges posed by e-commerce transactions. Bangladesh Bank oversees digital payments, mobile financial services (MFS), and banking transactions, yet lacks a robust e-commerce refund and dispute-resolution framework.

Furthermore, the lack of a dedicated e-commerce consumer tribunal and a dedicated digital dispute resolution mechanism adds to the challenges of consumer redress. Complaints can be cumbersome and lengthy, and difficult to navigate due to the complexity of the process and the lack of responsiveness from institutions. This institutional weakness negatively impacts trust in Bangladesh's digital marketplace (Chowdhury, 2025). Furthermore, many consumers are unaware of their rights or how to file complaints, which weakens current protections. High-profile scams have further eroded confidence, highlighting the urgent need for a unified legal framework tailored for e-commerce.

The scenario mentioned above indicates that there is still a research gap in understanding why Bangladesh has been experiencing such problems despite its existing legal frameworks and agencies. Several studies have been conducted in the field of e-commerce. Some of which are based on secondary sources. Hence, it is necessary to collect and analyze evidence regarding the regulatory framework for addressing consumer protection. By identifying policy gaps and evaluating legal frameworks, the present research is expected to contribute to policy design.

legal system in developing more effective consumer protection mechanisms and improving coordination among institutions in Bangladesh's digital economy.

2. Literature Review

Existing research highlights notable weaknesses in consumer protection within Bangladesh's e-commerce industry. Hasan Muhammad Roman, in "A Legal Analysis of Consumer Protection in the E-commerce Sector in Bangladesh," emphasizes that the Consumer Rights Protection Act, 2009, offers only broad protections and lacks specific clauses addressing online transactions, digital fraud, and data privacy. The study also points out that enforcement is weak and institutional support is limited, posing major challenges (Roman, 2026).

Joydeep Chowdhury, in "Strengthening E-Commerce Consumer Protection in Bangladesh: Legal Challenges, Regulatory Gaps, and Reform Strategies," discusses problems such as fragmented regulation, insufficient dispute resolution mechanisms, low consumer awareness, and a lack of accountability among online companies. He recommends enhancing monitoring systems, improving institutional coordination, and establishing dedicated e-commerce regulations (Chowdhury, 2025).

Scholars have discussed digital marketplaces as introducing unequal relations between consumers and online businesses due to information inequality, opacity, and weak legal responsibility on the part of online businesses (Cseres, 2005). OECD (2016) has identified four key elements for effective consumer protection in e-commerce. According to UNCTAD (2023), nations with unstable digital governance systems typically experience increased online fraud, misuse of consumer data, and ineffective enforcement.

Consumer rights are principles that protect buyers' interests in the market, including safety, information, choice, being heard, and redress. While the Consumer Rights Protection Act of 2009 offers a basic framework for these rights, it falls short in addressing the specific challenges of e-commerce. Although it covers core rights like safety and information, it lacks detailed provisions for online shopping issues, such as digital fraud or inadequate delivery, which are common today. While frameworks like the ICT Act, 2006, the Cyber Security Act, 2023, the National Digital Commerce Policy, 2018, and the Digital Commerce Operation Guidelines, 2021 provide foundational structures, they still fall short in protecting consumers' rights. Despite these efforts, enforcement remains weak due to institutional constraints, fragmented regulatory oversight, and low consumer awareness.

The notion of consumer protection in the digital age has been linked to regulatory governance theory, which outlines the role of regulatory authorities and the state in fostering transparency, accountability, and market discipline in dynamic digital economies (Baldwin et al., 2011). On the other hand, neighboring country India has significantly modernized its consumer protection laws to align with the realities of a growing digital economy. The Consumer Protection Act, 2019, along with the Consumer Protection (E-Commerce) Rules, 2020, introduced several

Magistrate, 3 officials of DNCRP, and 1 police officer. The FGD included 4 relevant government employees of DNCRP and 1 E-CAB leader. Secondary data have been collected from the Directorate of National Consumer Rights Protection (DNCRP), various laws and regulations, reports and statistics, newspapers, scholarly articles published in journals, and through content analysis.

4. Findings

4.1 Analysis of data obtained from the Directorate of National Consumer Rights Protection (DNCRP) reveals the following findings:

Table 1: Total complaints lodged against e-commerce platforms over the years (2021-2025) are as follows:

Year	Number of Complaints
2021	4,781
2022	3,349
2023	2,401
2024	41,028
2025	7,837
Total	**59,396**

Source: The Directorate of National Consumer Rights Protection (DNCRP)

A year-by-year breakdown of complaints lodged against e-commerce platforms shows a significant upward trend. The figure above shows that the volume of consumer complaints has increased day by day. In 2024 alone, over 41,000 complaints were recorded, indicating rising dissatisfaction and possibly increased consumer awareness. According to the Directorate of National Consumer Rights Protection (DNCRP), Table 2 below summarizes the scale and resolution status of complaints lodged against major e-commerce and F-commerce platforms in Bangladesh over the last five years.

Table 2: Summary of Major E-Commerce Platforms Related Complaint Statistics (2021 to 2025):

Platform	Complaints Lodged	Resolved	Resolved (%)
Evaly	28,988	4,757	16.41
E-orange	8,467	195	2.30
Dhamaka Shopping	1,580	298	18.86
F-commerce Vendors	21	20	95.24
Qcoom	8,207	2,750	33.51
Alesha Mart	4,863	412	8.47
Daraz	2,876	2,709	94.19
Foodpanda	1,424	1294	90.87
Othoba	1,147	1,063	92.68

The Consumer Rights Protection Act (CRPA), 2009 contains adequate and explicit provisions to address modern digital fraud and e-commerce scams.
25 responses

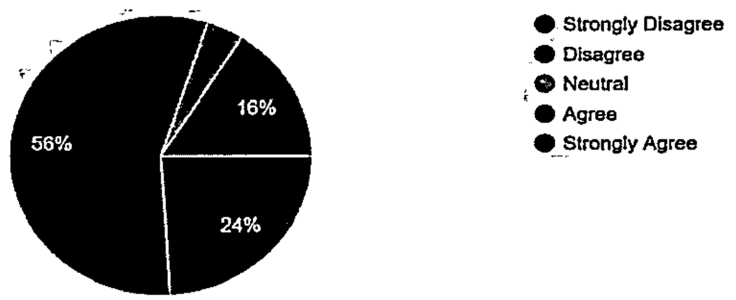


Fig.1

Does the lack of a legal definition for "e-commerce marketplace liability" in the CRPA, 2009 protect fraudulent third-party sellers from accountability?
25 responses

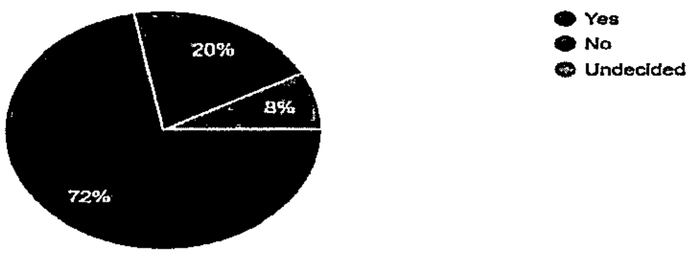
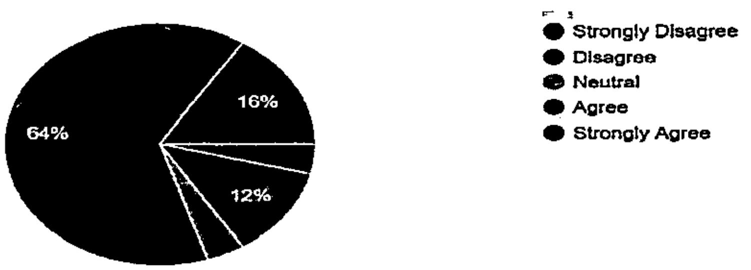


Fig.2

Administrative frameworks like the Digital Commerce Operation Guidelines 2021 are difficult to enforce because they lack the full statutory power of an Act passed by Parliament.
25 responses



agency from swiftly penalizing non-compliant e-commerce platforms. From Fig. 9, it is clear that 36.4% of respondents believe that existing laws do not grant enforcement officers sufficient summary judicial power to immediately freeze the financial assets of an e-commerce platform suspected of operating a Ponzi scheme. From Fig. 10, it is clear that 95.7% of respondents report that low levels of legal awareness among consumers significantly hinder the concerned department's ability to gather proper evidence for online fraud cases.

How would you rate the adequacy of the technical/digital forensic tools available to your department for tracing fraudulent online transactions or fake pages?
24 responses

Fig.6

Is the current volume of monthly e-commerce complaints beyond the operational human resource capacity of the Directorate of National Consumer Rights Protection (DNCRP)?
24 responses

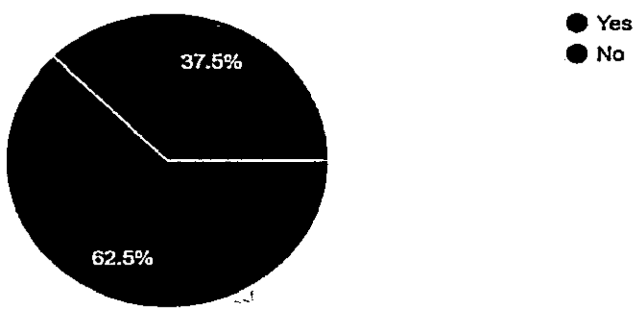


Fig.7

4.2.3 Inter-Agency Coordination

Fig. 11 illustrates that 43.5% of respondents perceive that the current level of real-time data sharing between the DNCRP and the Bangladesh Telecommunication Regulatory Commission (BTRC) for blocking fraudulent URLs/pages is highly inefficient. It is evident from Fig. 12 that 60.9% of respondents perceive a lack of a unified digital platform connecting the Ministry of Commerce, DNCRP, BTRC, and Bangladesh Bank, forcing agencies to operate in institutional silos. From Fig. 13, it is clear that 91.3% of respondents feel that the absence of a synchronized joint protocol with Bangladesh Bank delays investigations into suspected e-commerce money laundering cases. From Fig. 14, it is clear that 60.9% of respondents reported that inter-agency coordination during major e-commerce crises (e.g., the Evaly or E-Orange scandals) was primarily reactive rather than preemptive.

How would you rate the current level of real-time data sharing between the DNCRP and the Bangladesh Telecommunication Regulatory Commission (BTRC) for blocking fraudulent URLs/pages?
23 responses

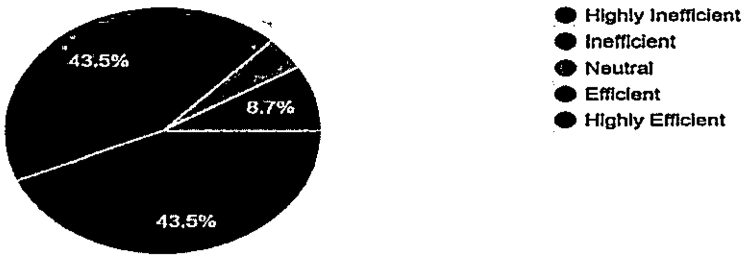


Fig.11

The lack of a unified digital platform connecting the Ministry of Commerce, DNCRP, BTRC, and Bangladesh Bank forces agencies to operate in institutional silos.
23 responses

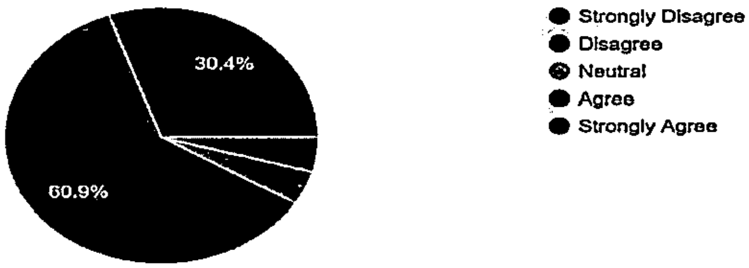


Fig.12

financial tracking systems are robust enough to guarantee automatic refunds to cheated consumers.

Historic data shows that maximum complaints against e-commerce entities remain unsettled. What is the main institutional reason for this backlog? (Select one)
23 responses

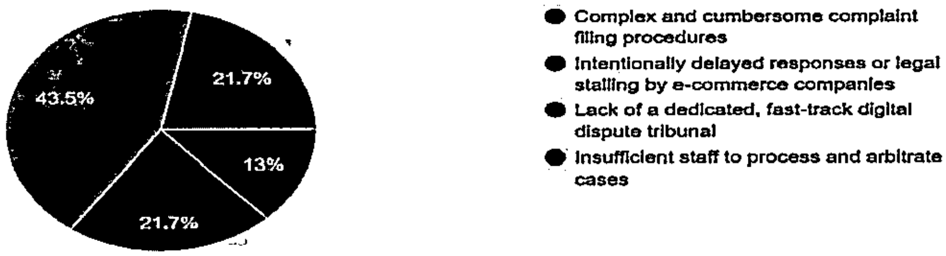


Fig.15

The current manual or semi-automated administrative hearing process at the DNCRP is fast enough to handle high-volume digital marketplace disputes.
23 responses

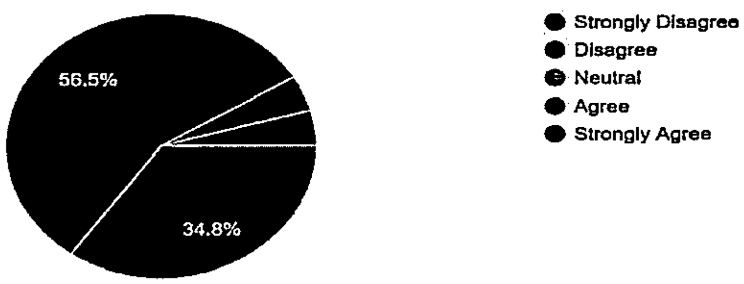


Fig.16

To build market trust, Bangladesh should introduce a law making e-commerce platforms strictly liable for the defective products and deceptive ads of their third-party sellers.
23 responses

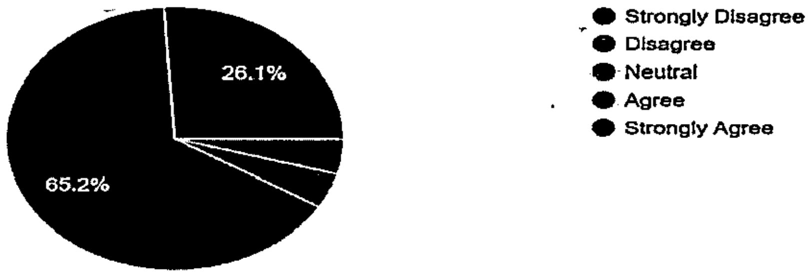


Fig.19

What is the most urgent policy reform required to stabilize Bangladesh's e-commerce sector? (Select one)
24 responses

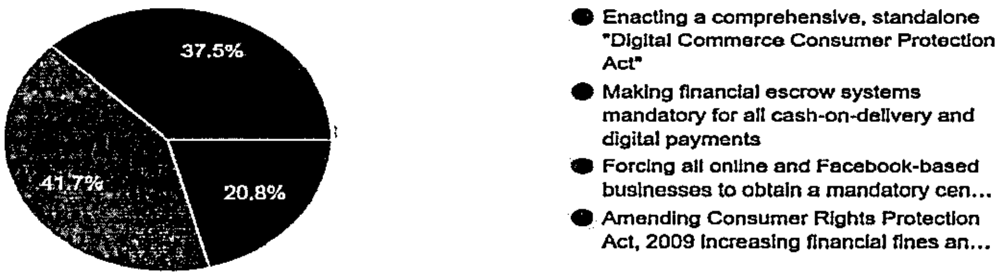


Fig.20

4.3 Qualitative Analysis and Findings

To triangulate the quantitative survey results and explore the deep-seated institutional realities, qualitative insights have been gathered through Key Informant Interviews (KII) with different regulatory officials and Focus Group Discussions (FGD).

4.3.1 Statutory Gaps and Legislative Anachronisms in the CRPA, 2009

The primary finding from enforcement officials is that the Consumer Rights Protection Act (CRPA), 2009, is structurally out of sync with the digital economy. Because the Act was drafted before the domestic e-commerce boom, it lacks explicit definitions for e-commerce, marketplace liability, or digital fraud. Enforcement drives are legally tied by text to physical marketplaces and tangible goods. Informants noted that this statutory gap allows digital intermediaries to avoid

- The strict, rigid statutory 30-day filing limit under the CRPA, 2009, routinely disqualifies thousands of consumers who are intentionally strung along by merchants with fake, extended delivery promises.

4.3.5 Inter-Agency Silos and Escrow System Failures

Joint enforcement actions among the Ministry of Commerce, DNCRP, BTRC, and Bangladesh Bank are fundamentally hampered by administrative barriers and a lack of a unified digital architecture.

- **Legislative and Technical Silos:** Banking secrecy regulations prevent Bangladesh Bank from sharing real-time transaction logs with DNCRP investigators. Furthermore, requesting web takedowns from the BTRC requires slow, manual paperwork rather than a direct, automated API, giving scammers ample time to clear out assets.
- **Escrow System Limitations**: While the central bank's escrow system was designed to protect consumer capital, it lacks end-to-end API integration with third-party courier logistics. It requires manual confirmation of delivery status. Fraudulent merchants exploit this gap by shipping fake or substandard items to trigger a successful delivery flag in the system, forcing funds out of escrow before the consumer can inspect the product.

5. Conclusion

The sustainable growth of Bangladesh's rapidly expanding e-commerce industry depends on consumer safety. However, fraud, misleading advertising, and inadequate consumer rights protection persist due to the current legal framework, antiquated enforcement methods, and jurisdictional disputes among regulatory agencies. Bangladesh's current e-commerce regulations are insufficient to protect customers from modern online fraud. The study looks at Bangladesh's e-commerce industry's legal and regulatory shortcomings, emphasizing the systematic inability to shield customers from fraud. Data from the Directorate of National Consumer Rights Protection (DNCRP) show a startling increase in complaints against major platforms, with the great majority unaddressed due to lax enforcement procedures. Therefore, the digital marketplace runs the risk of losing customer trust, which is the foundation of the e-commerce ecosystem, in the absence of significant regulatory reforms. This study has meticulously examined the research questions surrounding the adequacy of the current legal landscape, including the Consumers' Rights Protection Act, 2009, and the Digital Commerce Operation Guidelines, 2021.

Additionally, comparative legal analysis with India's Consumer Protection (E-Commerce) Rules, 2020. Moreover, this study has comprehensively met its stated objectives by critically analyzing the limitations of regulatory mechanisms in safeguarding consumer rights in the e-commerce sector. The study examines Bangladesh's e-commerce industry's legal and regulatory shortcomings, highlighting the systemic inability to protect customers from fraud. According to survey data and qualitative interviews, the Consumer Rights Protection Act of 2009 is outdated

Declaration: I declare that this paper contains neither any plagiarized material nor any AI-generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

References

Baldwin, R., Cave, M., & Lodge, M. (2011). *Understanding regulation: Theory, strategy, and practice* (2nd ed.). Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199576081.001.0001

Chowdhury, J. (2025). Strengthening E-Commerce consumer protection in Bangladesh: legal challenges, regulatory gaps, and reform strategies. *International Journal of Research and Innovation in Social Science, 9(1)*, 2548–2567. https://doi.org/10.47772/ijriss.2025.9010206

Cseres, K. J. (2005). Competition Law and Consumer Protection. Kluwer Law International B.V., Volume 49, pp 1-450.

Jakhar, J. (2022). Consumer Protection (E- Commerce Rules), 2020 Revolution for Consumer Protection in Digital Space, *International Journal of Law Management and Humanities*, 5(4), pp 1919-1929. https://doij.org/10.10000/IJLMH.113605

OECD. (2016). Recommendation of the Council on Consumer Protection in E-commerce, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264255258-en.

Roman, H. M. (2026). A Legal Analysis of Consumer Protection in the E-commerce Sector in Bangladesh. *The Chittagong University Journal of Business Administration*. Volume 36, pp. 55-86

Siddiquee, N. A. (2016). E-government and transformation of service delivery in developing countries: The Bangladesh experience and lessons. *Transforming Government: People, Process and Policy*, *10*(3), 368-390.

UNCTAD. (2023, February 16). *Digital Economy Report: Pacific Edition 2022 | Towards value creation and inclusiveness.* UN Trade and Development (UNCTAD). https://unctad.org/publication/digital-economy-report-pacific-edition-2022

Wardad, Y. (2022). 30,000 complaints against e-commerce entities: More than 56pc yet to be settled. The Financial Express. https://thefinancialexpress.com.bd/trade/30000-complaints-against-e-commerce-entities-1665066635

4. Which legal instrument currently creates the most jurisdiction overlap or confusion when regulating online business misconduct? (Select one)

Consumer Rights Protection Act, 2009

Information and Communication Technology (ICT) Act, 2006

Cyber Security Act, 2023

National Digital Commerce Policy, 2018(as amended in 2020)

5. The absence of strict, legally mandated data privacy protections within consumer laws directly increases consumer vulnerability to online scams.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Section 2: Institutional Enforcement Challenges

6. How would you rate the adequacy of the technical/digital forensic tools available to your department for tracing fraudulent online transactions or fake pages?

Highly Inadequate

Inadequate

Neutral

Adequate

Highly Adequate

7. Is the current volume of monthly e-commerce complaints beyond the operational human resource capacity of the Directorate of National Consumer Rights Protection (DNCRP)?

Yes

No

12. The lack of a unified digital platform connecting the Ministry of Commerce, DNCRP, BTRC, and Bangladesh Bank forces agencies to operate in institutional silos.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

13. Does the absence of a synchronized joint protocol with Bangladesh Bank delay investigations into suspected e-commerce money laundering cases?

Yes

No

Undecided

14. Inter-agency coordination during major e-commerce crises (e.g., the Evaly or E-Orange scandals) was primarily reactive rather than preemptive.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Section 4: Complaint & Dispute Resolution Effectiveness

15. Historic data shows that maximum complaints against e-commerce entities remain unsettled. What is the main institutional reason for this backlog? (Select one)

Complex and cumbersome complaint filing procedures

Intentionally delayed responses or legal stalling by e-commerce companies

Lack of a dedicated, fast-track digital dispute tribunal

Insufficient staff to process and arbitrate cases

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

20. What is the most urgent policy reform required to stabilize Bangladesh's e-commerce sector? (Select one)

Enacting a comprehensive, standalone "Digital Commerce Consumer Protection Act"

Making financial escrow systems mandatory for all cash-on-delivery and digital payments

Forcing all online and Facebook-based businesses to obtain a mandatory central registry license

Amending Consumer Rights Protection Act, 2009 increasing financial fines and criminal penalties for digital fraud

Annexure-3

Checklist for Focus Group Discussion (FGD)

1. Where exactly does the boundary lie between an e-commerce platform's corporate liability and a third-party merchant's individual liability when a consumer is defrauded?

2. From both regulatory and business perspectives, why did the Digital Commerce Operation Guidelines 2021 fail to prevent the systemic rise of fraudulent cashback and delivery scams?

3. Government officials often cite weak laws, while the private sector often cites bureaucratic overreach. What is the real root cause behind the maximum complaints of e- commerce remaining unresolved?

4. How can we realistically bridge the data-sharing and operational silos between the Ministry of Commerce, DNCRP, BTRC, and Bangladesh Bank to create a unified, real-time enforcement system?

5. How has the introduction of the Bangladesh Bank escrow system impacted business liquidity for honest e-commerce platforms versus its effectiveness in protecting consumer payments?

6. What are the specific structural reasons why the manual administrative hearing process at the DNCRP cannot keep pace with the high volume of digital marketplace disputes?

7. Are the current financial fines and criminal penalties under the Consumer Rights Protection Act (CRPA) 2009 a genuine deterrent to large-scale digital fraud, or are they simply viewed as a minor cost of doing business?

8. If Bangladesh introduces strict product liability laws matching India's Consumer Protection (E-Commerce) Rules, 2020, would it stabilize consumer trust or unintentionally crush the growth of local startups?

9. What specific operational challenges prevent the immediate setup of a dedicated, fast-track E-commerce Consumer Tribunal or an independent digital dispute mechanism?

10. To what extent does the lack of mandatory central registry licensing allow thousands of rogue Facebook-based (F-commerce) pages to operate completely outside the reach of the law and consumer protections?

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Seal

Programme & Studies Division

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO: 05 (Part-I)

DATE: 15/05/2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Seal

Programme & Studies Division

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO: 05 (Part-I)

DATE: 15/05/2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Mohammad Ashraf Hossain

Roll No: 117

Seminar Paper

On

A Study of How Micro Finance Contribute to the Deduction of Poverty

Submitted by

Mohammad Ashraf Hossain
Roll No: 117

157th Advanced Course on Administration and Development
Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

A Study of How Micro Finance Contribute to the Deduction of Poverty

Abstract

Poverty had remained one of the major socio-economic challenges in Bangladesh, particularly among rural and low-income households. Microfinance had emerged as an important development strategy aimed at improving the livelihoods of disadvantaged populations by providing access to financial services such as microcredit, savings, and small business support. This study examined the contribution of microfinance to poverty reduction in Bangladesh by assessing its impact on household income, economic well-being, and overall living standards. The study adopted a mixed-method research design that combined both quantitative and qualitative approaches to gain a comprehensive understanding of the effectiveness of microfinance programs. Data were collected from selected rural and semi-urban areas where microfinance institutions (MFIs) were actively operating. The study population included microfinance beneficiaries, non-beneficiary households, MFI officials, and community leaders. A total of 65 respondents were selected through multi-stage sampling techniques, incorporating both simple random and purposive sampling methods. Primary data were gathered through structured questionnaires, face-to-face interviews, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs), while secondary data were obtained from government reports, academic literature, NGO publications, and statistical databases. The findings revealed that microfinance services contributed positively to income generation, employment opportunities, savings behavior, and asset accumulation among beneficiaries. The study also found that while microcredit enhanced economic opportunities for many borrowers, some beneficiaries experienced challenges related to loan repayment and indebtedness. Furthermore, the study identified entrepreneurial skills, market access, and institutional support as critical factors influencing the effectiveness of microfinance programs. Based on these findings, the study recommended strengthening support services and improving program implementation to enhance the role of microfinance as a sustainable tool for poverty reduction in Bangladesh.

Keywords: Microfinance, Poverty Reduction, Microcredit, Rural Development, Bangladesh.

Introduction:

1.1 Background of the Study:

Over the past three decades, Bangladesh has achieved remarkable progress in reducing poverty, transforming from one of the poorest nations to a lower-middle-income economy. National poverty declined from about 57% in the early 1990s to nearly 20% in recent years, while extreme poverty fell significantly as well. This progress has been supported by sustained economic growth, averaging over 6% annually for much of the 2000s and 2010s, alongside improvements in human development indicators, remittance inflows, and social safety net programs.

Within this broader development context, microfinance has emerged as a key instrument in poverty alleviation. Institutions such as Grameen Bank, BRAC, and ASA have significantly expanded their outreach. The number of microfinance clients has grown from fewer than 2 million in the early 1990s to over 40 million borrowers today, with a strong focus on women. This expansion has improved access to credit, savings, and other financial services for populations traditionally excluded from formal banking systems.

Microfinance contributes to poverty reduction primarily by enabling income-generating activities. Small loans allow poor households to invest in agriculture, small businesses, livestock rearing, and other entrepreneurial ventures. These activities can increase household income, smooth consumption, and enhance resilience against economic shocks. Moreover, microfinance programs often include social development components such as training, education, and health awareness, which further strengthen the capabilities of the poor. However, the impact of microfinance on poverty is neither automatic nor uniform. Unlike direct cash transfers, microcredit requires borrowers to generate sufficient returns to repay loans before realizing net benefits. This process depends on several factors, including the borrower's skills, market access, and the overall economic environment. In regions with limited economic opportunities, the effectiveness of microfinance tends to be constrained.

There are also growing concerns regarding the limitations of microfinance. Critics argue that relatively high interest rates often around 20% can place a heavy burden on borrowers. In some cases, clients may take multiple loans from different institutions, leading to over-indebtedness. Additionally, not all borrowers can successfully invest in productive activities, which limits the long-term poverty reduction impact. Some studies suggest that while microfinance helps in stabilizing consumption and reducing vulnerability, its effect on lifting households permanently out of poverty is modest.

Despite these challenges, microfinance remains an important component of Bangladesh's poverty reduction strategy. Its greatest strength lies in financial inclusion bringing marginalized populations, especially women, into the economic mainstream. To enhance its effectiveness, policies should focus on improving borrower skills, ensuring responsible lending practices, integrating microfinance with market access, and complementing it with broader social protection measures. Microfinance has contributed positively to poverty reduction in Bangladesh, but it is not a standalone solution. Its success depends heavily on supportive economic conditions, effective institutional frameworks, and the capacity of borrowers to utilize financial resources productively.

1.2 Problem Statement:

Despite the widespread expansion of microfinance institutions in Bangladesh, the extent to which microfinance effectively contributes to sustainable poverty reduction remains unclear. While access to credit has increased significantly, many borrowers struggle to generate sufficient income to repay loans and improve their living standards. Issues such as high interest rates, limited entrepreneurial capacity, and over-indebtedness raise concerns about the long-term impact of microfinance. Therefore, this study seeks to examine whether microfinance genuinely reduces poverty or merely provides short-term financial relief without creating lasting economic improvement among low-income households in Bangladesh.

Research Gap

Although numerous studies have examined the role of microfinance in poverty reduction in Bangladesh, there remains a lack of consensus on its long-term effectiveness. Most existing research focuses on outreach and short-term income effects, while limited attention is given to sustainability, quality of life improvements, and the risk of borrower indebtedness. Additionally, insufficient empirical evidence exists on how contextual factors such as local market conditions, financial literacy, and institutional support shape outcomes. There is also a gap in comparing productive versus non-productive loan use. This study aims to address these gaps by providing a more comprehensive and context-specific analysis.

1.3 Objectives of the study:

1.3.1 General Objective:

The general objective of this study is to examine the overall contribution of microfinance to poverty reduction in Bangladesh. It aims to evaluate how access to microcredit influences income generation, livelihood improvement, and economic stability among low-income households, while also assessing whether microfinance leads to sustainable poverty alleviation or creates challenges such as indebtedness and limited long-term economic progress.

1.3.2 Specific Objectives

i. To assess the impact of microfinance services on income levels and poverty reduction among low-income households in Bangladesh;

ii. To examine whether microcredit utilization leads to sustainable economic improvement or increased indebtedness among borrowers; and

iii. To identify the key factors (e.g., skills, market access, institutional support) that influence the effectiveness of microfinance in reducing poverty.

1.4 Research Question

i. How does microfinance influence income and poverty levels among low-income households in Bangladesh?

ii. Does access to microcredit lead to sustainable economic improvement or increased indebtedness among borrowers?

iii. What factors affect the effective utilization of microfinance for poverty reduction?

iv. To what extent does microfinance contribute to long-term livelihood improvement and financial stability?

1.5 Justification of the Study:

Microfinance has become a central strategy for poverty reduction in Bangladesh, yet its actual effectiveness remains widely debated. While institutions like Grameen Bank and BRAC have significantly expanded financial access for the poor, especially women, questions persist regarding whether microfinance leads to sustainable economic improvement or merely short-term financial support. Existing studies often emphasize outreach and credit access but provide limited insight into long-term outcomes such as income stability, asset accumulation, and vulnerability reduction.

This study is justified as it seeks to critically evaluate the real contribution of microfinance beyond surface-level indicators. By examining both positive impacts and emerging challenges such as indebtedness and ineffective loan utilization it will provide a balanced understanding. The findings will be valuable for policymakers, development practitioners, and financial institutions to design more effective, inclusive, and sustainable poverty reduction strategies.

2.0 Literature Review:

Microfinance has emerged as one of the most significant development strategies for poverty alleviation in developing countries, particularly in Bangladesh. The concept gained international recognition through the pioneering work of Muhammad Yunus and the establishment of Grameen Bank, which introduced collateral-free small loans for poor people, especially women. Numerous studies have examined the relationship between microfinance and poverty reduction, focusing on income generation, women's empowerment, employment creation, and improvement in living standards.

Early studies strongly supported the positive role of microfinance in reducing poverty. Khandker (2005) conducted one of the most influential longitudinal studies in Bangladesh and found that access to microfinance significantly contributed to poverty reduction at both household and village levels. The study revealed that female borrowers benefited more than male borrowers, and continuous participation in microfinance programs increased household consumption and income. The research also suggested that microfinance created spillover effects in rural economies through employment and business opportunities.

Similarly, Nawaz (2010) investigated the impact of microfinance programs in rural Bangladesh and found moderate improvements in socio-economic conditions among borrowers. The study highlighted that microfinance helped households increase income, improve housing conditions, and access education and healthcare services. However, the research also noted that the poorest people were often excluded from borrowing opportunities because of repayment risks and lack of financial capacity. The author recommended combining microfinance with training, health support, and social development programs to achieve sustainable poverty reduction.

Several empirical studies have examined the effectiveness of major microfinance institutions such as BRAC, ASA, and Proshika. Khanam et al. (2018) analyzed the performance of these organizations and concluded that microfinance services contributed positively to entrepreneurship development, income generation, and self-employment among low-income populations. Their findings showed that microfinance institutions provided financial inclusion opportunities for people who lacked access to traditional banking systems.

Research conducted in the southern region of Bangladesh also demonstrated the positive effects of microfinance on poverty alleviation. Badiuzzaman et al. (2020) found that micro-credit, savings schemes, and micro-insurance services significantly improved borrowers' economic conditions. Their study identified micro-credit as the most influential factor in reducing poverty through investment in small businesses and income-generating activities.

Despite these positive findings, several scholars have criticized the effectiveness of microfinance in achieving long-term poverty reduction. Banerjee and Jackson (2017) argued that microfinance sometimes increases indebtedness among poor borrowers rather than reducing poverty. Based on ethnographic evidence from rural Bangladesh, the authors found that many borrowers used loans for consumption purposes instead of productive investment, leading to financial pressure and repeated borrowing cycles. The study suggested that microfinance institutions increasingly prioritize profitability over social welfare, which weakens their poverty reduction mission.

A review by Churchill et al. (2016) also questioned the overall impact of microcredit on poverty reduction in Bangladesh. After analyzing multiple empirical studies, the researchers concluded that microfinance had only a weak positive effect on household consumption and little significant impact on income and asset accumulation. The study emphasized the existence of publication bias in earlier research that often overstated the success of microfinance programs.

Recent literature has focused on sustainable poverty reduction and institutional challenges within microfinance systems. A systematic review by MDPI (2024) highlighted that microfinance alone cannot eliminate poverty unless supported by education, market access, technological support, and strong governance mechanisms. The study stressed that financial inclusion should be integrated with broader social and economic development policies.

Contemporary discussions also recognize the role of microfinance in women's empowerment and social inclusion. Many studies report that access to credit enhances women's decision-making power, social participation, and entrepreneurial activities. However, critics argue that excessive loan pressure and high repayment obligations sometimes create psychological and financial stress among borrowers.

Overall, the literature presents mixed evidence regarding the contribution of microfinance to poverty reduction. While many studies confirm positive impacts on income generation, employment, and women's empowerment, others argue that microfinance alone cannot address structural causes of poverty. Most researchers agree that the effectiveness of microfinance can be improved through integrated development approaches, stronger regulation, financial literacy training, and social support services.

3.0 Methodology:

Research Design

This study **followed** a mixed-method research design, combining both quantitative and qualitative approaches. The quantitative method **measured** the impact of microfinance on poverty reduction, while the qualitative method **explored** the experiences, perceptions, and challenges faced by microfinance beneficiaries. A mixed-method approach **provided** a comprehensive understanding of the relationship between microfinance and poverty alleviation.

Study Area

The study **was conducted** in selected rural and semi-urban areas of Bangladesh where microfinance institutions (MFIs) **were actively operating**. Areas with a significant number of microfinance beneficiaries **were selected** to assess the effectiveness of microfinance programs in reducing poverty.

Population of the Study

The target population of the study **included**:

- Microfinance beneficiaries
- Non-beneficiary households (for comparison)
- Officials of microfinance institutions
- Local community leaders

Sampling Technique and Sample Size

A multi-stage sampling technique **was used** for selecting respondents.

Sample Size

- 50 microfinance beneficiaries

- 10 non-beneficiaries
- 5 MFI officials

Total sample size: 65 respondents

Simple random sampling and purposive sampling methods **were applied** where appropriate.

Sources of Data

Both primary and secondary data **were used** in this study.

Primary Data

Primary data **were collected** through:

- Structured questionnaires
- Face-to-face interviews
- Focus Group Discussions (FGDs)
- Key Informant Interviews (KIIs)

Secondary Data

Secondary data **were collected** from:

- Journal articles
- Books
- Government reports
- Bangladesh Bureau of Statistics (BBS)
- NGO and MFI reports
- Relevant websites and previous research studies

Data Collection Methods

A structured questionnaire **was prepared** to collect quantitative data on:

- Household income
- Savings
- Employment
- Asset ownership
- Education expenditure
- Health expenditure
- Living standards

Qualitative information **was collected** through interviews and discussions to understand respondents' experiences regarding microfinance services and poverty reduction.

4.0 Data Analysis and Findings:

4.1 Collection of Data:

The first objective of the study was to assess the impact of microfinance services on the income level and poverty reduction of low-income households in Bangladesh. The second objective was to examine whether the use of microfinance leads to sustainable economic growth among borrowers or increases indebtedness, and the third objective was to identify the key factors (e.g., skills, market access, institutional support) that influence the effectiveness of microfinance in poverty reduction. Data were collected from both primary and secondary sources, prioritizing the objectives. Primary data were collected through interviews (KIIs) with microfinance recipients, non-recipient households, and microfinance institution officials.

The main objective of the interviews was to collect data from microfinance borrowers, non-borrower households, and microfinance institution officials. They assessed the impact of microfinance services on the income level and poverty reduction of low-income households in Bangladesh. They assessed whether the use of microfinance led to sustainable economic growth among borrowers or increased indebtedness, and identified key factors (e.g., skills, market access, institutional support) that affect the effectiveness of microfinance in poverty reduction, and provided recommendations. In order to collect data appropriately, interviews were conducted through checklists and verbally on the objectives and views of the study. The interviews were conducted using both open and closed questions. The checklist contained a few questions that were simple, comprehensive, and easy to understand.

4.2 Data Analysis

The researcher himself collected the data supplying checklist containing few questions among the respondents.

The data analysis has been shown in the table below: -

Socio-economic Status

4.2.1 Family Employment Status

Table-1: Family Employment Status

Response	**Percentage (%)**
Yes	84%
No	16%
Total	**100%**

Source: Questionnaire survey, 2026

The findings show that 84% of respondents had at least one employed family member, while 16% reported no employment within their family. This indicates that most households had a regular source of income, which contributed to their financial stability and improved living conditions. Families with employed members were generally better able to meet essential needs such as food, education, healthcare, and housing. Employment also supported savings, asset building, and greater economic resilience, helping households cope with unexpected financial challenges. In contrast, the 16% of households without employed members experienced greater economic hardship. Limited or no income sources made it difficult for these families to manage daily expenses, often increasing their dependence on external assistance or informal borrowing. The results highlight that family employment plays a vital role in improving household welfare and reducing poverty. Expanding job opportunities and supporting income-generating activities can further strengthen economic stability and promote sustainable development.

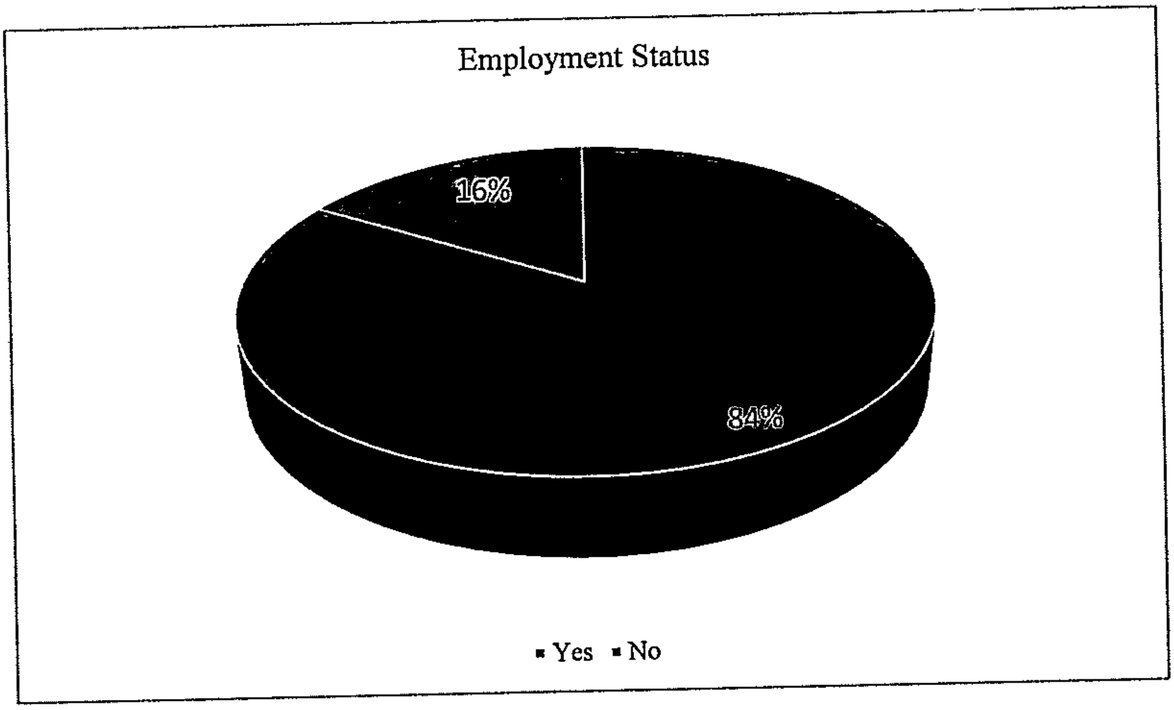


Chart-1: Family Employment Status

__Microfinance Information__

4.2.2 Microfinance Membership and Credit Utilization Status

Table-2: Microfinance Membership and Credit Utilization Status

Indicators	Response Category	Percentage (%)
Membership in Microfinance Institution	Yes	78%
	No	22%
Microcredit Usage Duration	1–3 years	46%
	4–6 years	38%
	7+ years	16%
Frequency of Microcredit Taken	1–2 times	28%
	3–5 times	52%
	6+ times	20%

Source: Questionnaire survey, 2026

The analysis shows that a significant majority of respondents (78%) were members of microfinance institutions, indicating widespread access to microcredit services among the surveyed population. Only 22% were non-members, suggesting that microfinance programs have a strong outreach in the study area. Regarding the duration of microcredit usage, most respondents had been involved with microfinance for 1–6 years, with 46% using it for 1–3 years and 38% for 4–6 years. A smaller portion (16%) had long-term engagement of more than 7 years, reflecting continuous reliance on microfinance services for livelihood support and income generation. In terms of borrowing frequency, the majority of respondents (52%) had taken microcredit 3–5 times, while 28% had borrowed only 1–2 times. A smaller group (20%) had accessed loans 6 or more times, indicating repeated dependence on microfinance for financial activities. Overall, the findings suggest that microfinance plays an important role in providing financial access and supporting income-generating activities. The repeated use and long-term involvement indicate that microfinance contributes significantly to household economic stability and poverty reduction, although it may also reflect continued financial dependency among some borrowers.

4.2.3 Purpose of Taking Microcredit

Table-3: Purpose of Taking Microcredit

Purpose	**Percentage (%)**
Agriculture	26%
Small business	34%
Livestock rearing	18%
Education expenses	8%
Health expenses	6%
Other	8%
Total	**100%**

Source: Questionnaire survey, 2026

The analysis reveals that microcredit was primarily used for income-generating activities, with the highest proportion of respondents (34%) utilizing loans for small business purposes. This indicates that microfinance plays a significant role in supporting entrepreneurship and expanding small-scale trading activities in rural and semi-urban areas. Agriculture was the second most common use of microcredit, accounting for 26% of respondents. This suggests that a substantial portion of borrowers invested loan funds in crop production and related farming activities, which directly contribute to household income and food security. Livestock rearing represented 18% of microcredit usage, highlighting its importance as a supplementary livelihood strategy for rural households. Meanwhile, a smaller proportion of respondents used microcredit for essential social needs such as education (8%) and health expenses (6%), reflecting the role of microfinance in addressing basic human development needs during financial constraints. A further 8% of respondents reported using loans for other purposes, including household consumption and emergency needs. The findings indicate that microcredit is mainly directed toward productive economic activities, particularly small business and agriculture, which contribute to income generation and poverty reduction. However, the use of loans for non-productive needs also suggests that some households rely on microfinance as a coping mechanism during financial stress.

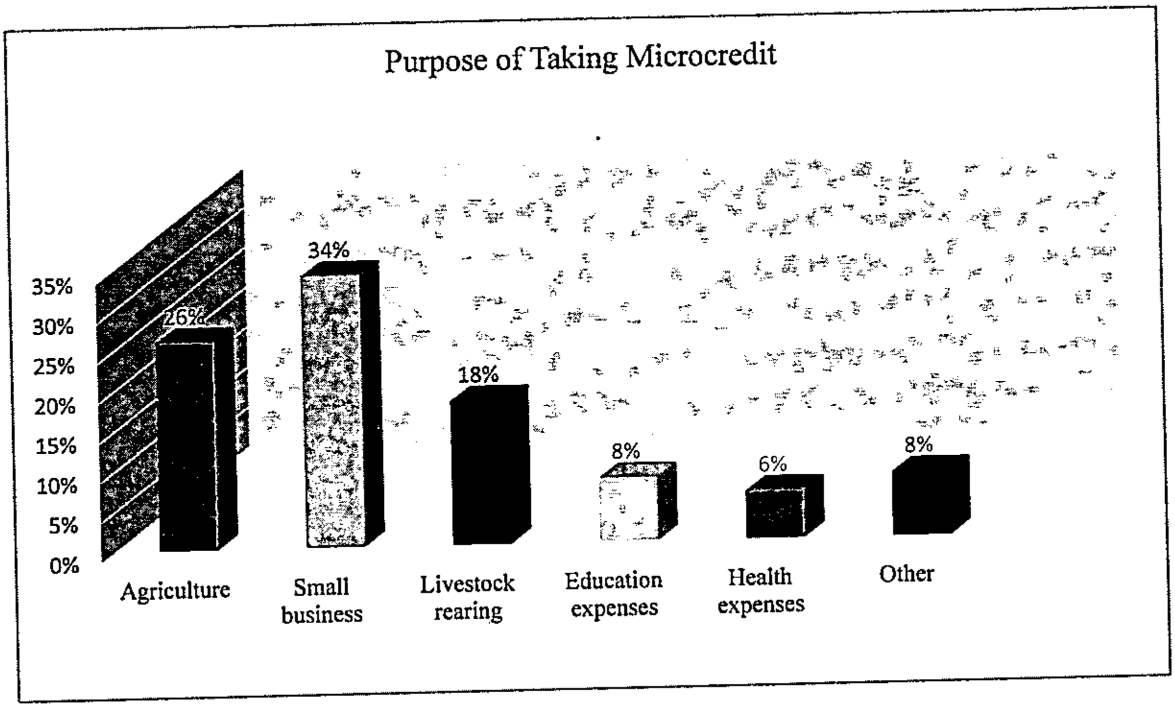


Chart-2: Purpose of Taking Microcredit

4.2.4 Impact of Microcredit on Income, Living Standards, and Debt Experience

Table-4: Impact of microfinance

Indicators	Response Category	Percentage (%)
Perceived usefulness of microcredit in increasing income	Very helpful	38%
	Helpful	44%
	Somewhat helpful	14%
	Not helpful	4%
Debt burden due to microcredit	Yes	32%
	No	68%
Received training/advice from MFI	Yes	41%
	No	59%

Source: Questionnaire survey, 2026

The findings indicate that microcredit has played a largely positive role in increasing household income among borrowers. A combined 82% of respondents reported that microcredit was either *very helpful* or *helpful* in improving their income levels, while only a small proportion (4%) considered it not helpful. This suggests that microfinance contributes significantly to income-generating activities, particularly through small businesses, agriculture, and livestock-related investments. Regarding improvements in living standards, respondents reported noticeable positive changes, including better access to food, improved housing conditions, increased educational opportunities for children, and enhanced healthcare spending. These improvements reflect the broader social impact of microcredit beyond income generation, contributing to overall poverty reduction and improved quality of life.

However, the study also found that 32% of respondents experienced debt-related challenges, including difficulties in repaying installments. This indicates that while microcredit supports economic activities, it may also create financial pressure for some borrowers, especially those with unstable income or poor investment outcomes. In terms of institutional support, 41% of respondents reported receiving training or advisory services from microfinance institutions. The training mainly included basic business management, livestock care, agricultural practices, and financial literacy. However, a majority (59%) did not receive any such support, suggesting a gap in capacity-building services. Overall, the results demonstrate that microcredit is an effective tool for improving income and living standards, but its full impact depends on adequate training, proper utilization, and sustainable repayment capacity.

Poverty Reduction and Living Standards

4.2.5 Change in Family Poverty Situation (Last 5 Years)

Table-5 Change in Family Poverty Situation

Response	Percentage (%)
Significantly improved	28%
Somewhat improved	46%
Remained the same	18%
Deteriorated	8%
Total	**100%**

Source: Questionnaire survey, 2026

The findings reveal that the majority of respondents experienced an improvement in their household poverty situation over the last five years. A combined 74% reported that their condition had either *significantly improved* (28%) or *somewhat improved* (46%). This suggests that microfinance, along with other socio-economic factors, has contributed positively to enhancing household income, employment opportunities, and overall living standards. The improvements were largely reflected in better access to food, increased household income, improved housing conditions, and greater investment in children's education and healthcare. These changes indicate gradual progress in poverty reduction among microfinance beneficiaries. However, 18% of respondents stated that their poverty situation remained unchanged, suggesting that microcredit had a limited or neutral impact on some households. Additionally, 8% reported a deterioration in their economic condition, which may be linked to factors such as loan repayment difficulties, insufficient income generation, or external economic shocks. Overall, the results indicate that microfinance has played a generally positive role in improving the poverty situation of most households over time. Nevertheless, the presence of stagnation and deterioration among some respondents highlights the need for more effective support mechanisms, better financial training, and sustainable income-generating opportunities to ensure inclusive poverty reduction.

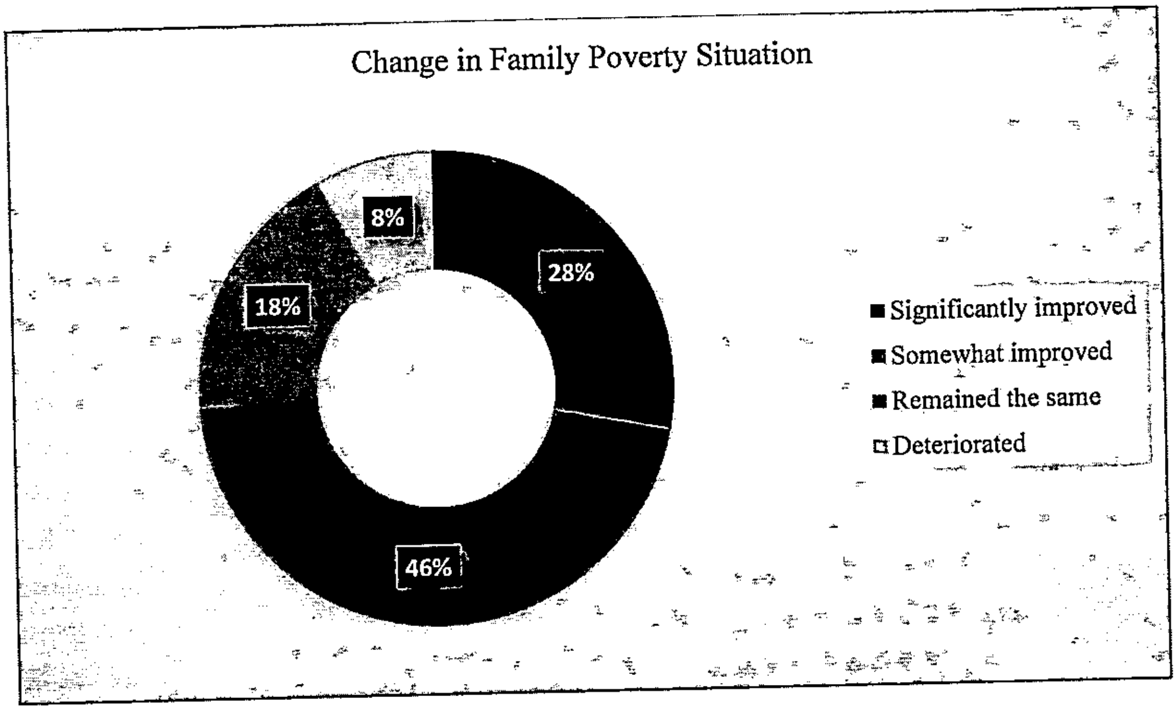


Chart-3: Change in Family Poverty Situation (Last 5 Years)

4.2.6 Perceived Effectiveness of Microcredit in Reducing Poverty

Table-6: Perceived effectiveness of microfinance

Response	Percentage (%)
Extremely effective	32%
Effective	50%
Somewhat effective	18%
Total	**100%**

Source: Questionnaire survey, 2026

The findings indicate that microcredit is widely perceived as an effective tool for reducing poverty in the study area. A significant proportion of respondents (82%) reported that microcredit is either *extremely effective* (32%) or *effective* (50%). This suggests that microfinance plays a strong role in improving household income, supporting small businesses, and enhancing overall living standards. The remaining 18% of respondents considered microcredit to be *somewhat effective*, indicating that its benefits are present but not fully sufficient for all households. This may be due to factors such as limited loan size, inadequate investment opportunities, or lack of proper training and institutional support. The results demonstrate that microcredit has a positive and meaningful impact on poverty reduction. It helps households engage in income-generating activities, improve financial stability, and gradually enhance their socio-economic conditions. However, strengthening support services and ensuring better utilization of loans could further increase its effectiveness in sustainable poverty alleviation.

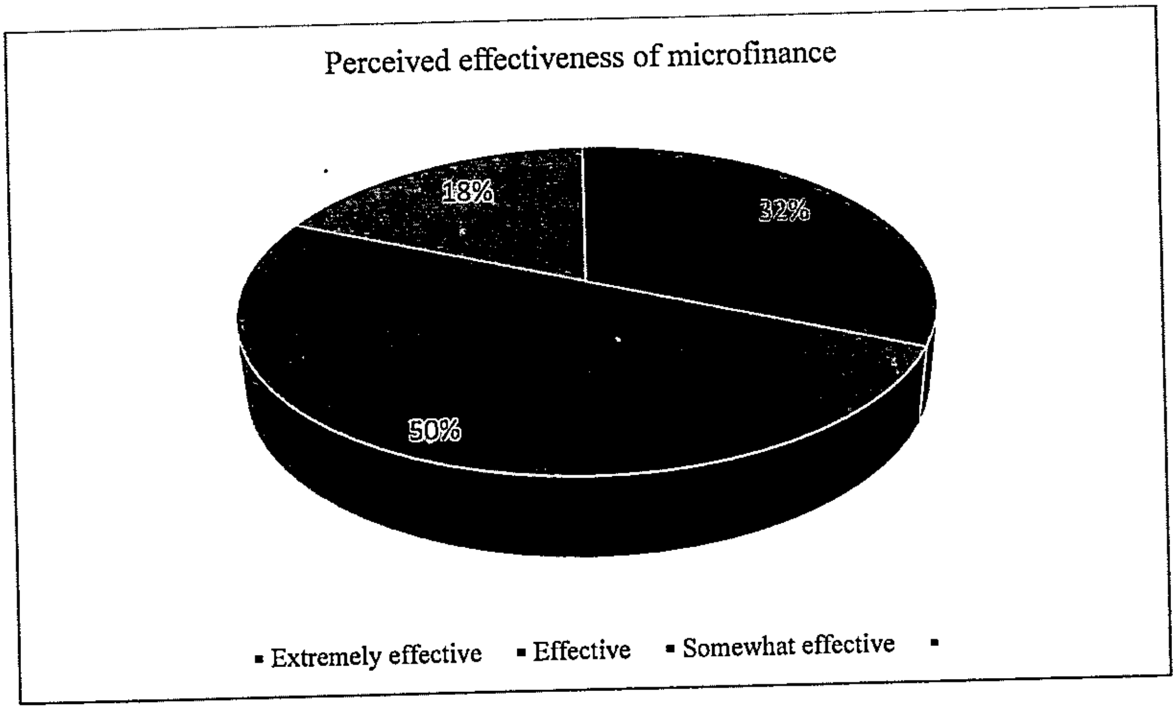


Chart-4: Perceived Effectiveness of Microcredit in Reducing Poverty

4.2.7 Analysis of Additional Measures to Reduce Poverty Beyond Microcredit

Table-7: Additional steps to reduce poverty

Additional Step	**Description**	**Expected Impact on Poverty Reduction**	**Relationship with Microfinance**
Employment Generation	Create more jobs in industry, agriculture, and services sectors.	Increases household income and reduces dependency on loans.	Microcredit becomes more effective when borrowers have stable income sources.
Skill Development and	Provide technical and entrepreneurial training to poor people.	Enhances employability and productivity.	Helps borrowers use loans more efficiently

Additional Step	Description	Expected Impact on Poverty Reduction	Relationship with Microfinance
Vocational Training			for income-generating activities.
Quality Education	Improve access to affordable and quality education.	Breaks the cycle of intergenerational poverty.	Educated borrowers are more likely to manage businesses successfully.
Healthcare Services	Ensure affordable healthcare and health insurance.	Reduces medical expenses and income loss due to illness.	Protects borrowers from using loan funds for emergency health costs.
Social Safety Net Programs	Expand government support such as cash transfers and food assistance.	Provides protection against economic shocks.	Complements microfinance by reducing financial vulnerability.
Agricultural Support	Offer subsidies, modern technology, and market access to farmers.	Increases agricultural productivity and income.	Enables rural borrowers to gain higher returns from financed activities.
Women's Empowerment	Promote women's education, leadership, and economic participation.	Improves household welfare and income distribution.	Strengthens the positive impact of microfinance, which often targets women.
Infrastructure Development	Improve roads, electricity, internet, and transportation.	Facilitates business growth and market access.	Helps microfinance clients expand and sustain enterprises.
Financial Literacy Programs	Teach budgeting, savings, and investment skills.	Improves financial decision-making and wealth accumulation.	Enhances loan management and repayment capacity.

Additional Step	Description	Expected Impact on Poverty Reduction	Relationship with Microfinance
Market Access and Business Support	Provide marketing facilities, business advisory services, and digital platforms.	Increases sales and profitability of small enterprises.	Enables borrowers to expand businesses and generate higher incomes.

Source: Questionnaire survey, 2026

The findings suggest that microfinance alone cannot eliminate poverty. While it provides access to capital, sustainable poverty reduction requires a comprehensive approach involving employment creation, education, healthcare, skills development, social protection, and infrastructure improvement. These complementary measures enhance the effectiveness of microfinance by increasing productivity, strengthening human capital, and creating economic opportunities. Therefore, an integrated poverty reduction strategy combining microfinance with broader socio-economic development initiatives is likely to achieve more significant and long-lasting poverty alleviation outcomes.

5.0 Challenges of the Study:

Challenges	Description
Limited time and resources	The study was constrained by limited time, financial resources, and logistical support, which restricted wider data collection.
Small sample size	Only a limited number of respondents (65) were included, which may not fully represent the broader population.
Respondent bias	Some respondents provided socially desirable answers, which may affect the accuracy of the findings.
Recall errors	Participants sometimes faced difficulty in accurately remembering past financial information such as income, loans, and repayment history.

Challenges	Description
Limited access to institutional data	Microfinance institutions were not always willing to share detailed operational or financial records.
Geographic limitation	The study was conducted only in selected rural and semi-urban areas, limiting generalization to the whole country.
Language and communication barriers	Some respondents had difficulty understanding technical financial terms used in the questionnaire.
Time constraint for fieldwork	Limited time in the field restricted deeper qualitative engagement such as long interviews and repeated visits.

6.0 Conclusion and Recommendations:

6.1 Conclusion:

Microfinance has emerged as a significant development tool in Bangladesh for reducing poverty and improving the socio-economic conditions of low-income households. The findings of this study indicate that microfinance contributes positively to income generation, employment creation, and the improvement of living standards among borrowers. Most respondents reported that microcredit helped them engage in small business activities, agriculture, and livestock rearing, which ultimately increased their household income and financial stability. The study also reveals that microfinance plays an important role in enhancing access to basic needs such as food, education, housing, and healthcare. A large proportion of beneficiaries experienced improvements in their overall quality of life over the past five years, showing that microfinance has a meaningful impact on poverty reduction. Furthermore, respondents generally perceived microcredit as an effective or highly effective tool in alleviating poverty. However, the study also identified certain challenges, including debt burden, limited training support, and difficulties in loan repayment among some households. These issues suggest that while microfinance is beneficial, its effectiveness depends on proper utilization, institutional support, and financial literacy.

Some of the microfinance borrower may want to borrow more amount of microcredit form the microfinance agency decalage they have enhanced their capacity, stillness and opportunity to invest that fund in a profitable sector. Moreover micro-credit enhance the ability of the micro-credit enhance borrower to propensity to save.

The study concludes that microfinance is a valuable instrument for poverty reduction in Bangladesh, but its impact can be further strengthened through improved training, better monitoring, and expanded income-generating opportunities to ensure long-term and sustainable poverty alleviation.

6.2 Recommendations:

- ✓ Microfinance institutions should increase loan size based on income capacity.
- ✓ Provide compulsory entrepreneurship training for borrowers.
- ✓ Strengthen financial literacy programs in rural areas.
- ✓ Ensure flexible repayment schedules for low-income households.
- ✓ Reduce interest rates where possible for vulnerable groups.
- ✓ Expand microfinance coverage to remote and underserved areas.
- ✓ Improve monitoring systems to prevent loan misuse.
- ✓ Encourage women's participation in microfinance programs.
- ✓ Link microcredit with market access support services.
- ✓ Provide regular follow-up support for borrowers.
- ✓ Introduce skill development programs alongside loans.
- ✓ Promote savings schemes within microfinance programs.
- ✓ Improve transparency in loan approval and repayment processes.
- ✓ Strengthen coordination between MFIs and government agencies.
- ✓ Offer emergency loans for health and crisis situations.
- ✓ Encourage group-based lending for better accountability.
- ✓ Provide agricultural and livestock technical support.
- ✓ Develop digital financial services for easier access.
- ✓ Conduct regular impact assessments of microfinance programs.
- ✓ Implement poverty-targeted loan distribution policies.

References

Badiuzzaman, U., Hasan, M. and Hossain, A. (2020) 'Impact of Microfinance on Poverty Alleviation: A Study in the Southern Part of Bangladesh', Asian Business Review, 10(2), pp. 81–86.

Banerjee, S.B. and Jackson, L. (2017) 'Microfinance and the business of poverty reduction: Critical perspectives from rural Bangladesh', Human Relations, 70(1), pp. 63–91.

Churchill, S.A., Danso, J.K. and Appau, S. (2016) 'Microcredit and poverty reduction in Bangladesh: Average effects beyond publication bias', Enterprise Development and Microfinance, 27(3), pp. 204–218.

Khanam, D., Mohiuddin, M., Hoque, A. and Weber, O. (2018) 'Financing micro-entrepreneurs for poverty alleviation: A performance analysis of microfinance services offered by BRAC, ASA and Proshika from Bangladesh', *Journal of Global Entrepreneurship Research*, 8(27), pp. 1–21.

Khandker, S.R. (2005) 'Microfinance and Poverty: Evidence Using Panel Data from Bangladesh', The World Bank Economic Review, 19(2), pp. 263–286.

Khandker, S.R. and Samad, H.A. (2014) 'Microfinance Growth and Poverty Reduction in Bangladesh: What Does the Longitudinal Data Say?', Bangladesh Development Studies, 37(1–2), pp. 127–157.

Nawaz, S. (2010) 'Microfinance and Poverty Reduction: Evidence from a Village Study in Bangladesh', *Journal of Asian and African Studies*, 45(6), pp. 670–683.

Shah, A. (2023) 'Impact of Microfinance Initiatives on Poverty Alleviation in Bangladesh', *Journal of Poverty, Investment and Development*, 8(1), pp. 15–28.

Questionnaire on the Contribution of Microfinance to Poverty Reduction

Research Title: A Study of How Microfinance Contributes to the Reduction of Poverty

1. Personal Information

1.1. Name (Optional): ______________________________

1.2. Age: ________ years

1.3. Gender: [ ] Male [ ] Female [ ] Other

1.4. Educational Qualification: ______________________________

1.5. Occupation: ______________________________

1.6. Number of Family Members: ________ persons

2. Socio-economic Status

2.1. What is your family's average monthly income? ________________ BDT

2.2. What is the main source of income for your family?

____

2.3. Do you have any savings? [ ] Yes [ ] No

2.3.1. If yes, what is the average monthly savings amount? ________________ BDT

2.4. List the assets owned by your family (e.g., land, house, livestock, furniture, etc.):

____

2.5. Is any member of your family employed? [ ] Yes [ ] No

2.5.1. If yes, how many members? ________ persons

3. Microfinance Information

3.1. Are you a member of any microfinance institution? [ ] Yes [ ] No

3.1.1. If yes, which institution? ______________________________

3.1.2. For how many years have you been taking microcredit? ________ years

3.2. How many times have you taken microcredit? ________ times

3.3. For what purposes do you usually take microcredit? (Multiple answers may apply)

[ ] Agriculture
[ ] Small business
[ ] Livestock rearing
[ ] Education expenses
[ ] Health expenses
[ ] Other (specify): ______________________________

3.4. How helpful do you think microcredit has been in increasing your income?

[ ] Very helpful
[ ] Helpful
[ ] Somewhat helpful

[ ] Not helpful

3.5. What role has microcredit played in improving your living standards? (e.g., better food, improved housing, children's education, etc.)

____

3.6. Have you ever been burdened by debt or faced problems repaying installments due to taking microcredit? [ ] Yes [ ] No

3.6.1. If yes, please describe briefly: ______________________

3.7. Have you received any training or advice from the microfinance institution? [ ] Yes [ ] No

3.7.1. If yes, what kind of training/advice? ______________________

4. Poverty Reduction and Living Standards

4.1. How do you think your family's poverty situation has changed in the last 5 years?

[ ] Significantly improved
[ ] Somewhat improved
[ ] Remained the same
[ ] Deteriorated

4.2. In your opinion, how effective is microcredit in reducing poverty?

[ ] Extremely effective
[ ] Effective
[ ] Somewhat effective
[ ] Ineffective

4.3. In addition to microcredit, what other steps do you think should be taken to reduce poverty?

____

5. Additional Comments

5.1. Do you have any other comments or suggestions regarding microfinance and poverty reduction?

____

Thank you!

Bangladesh Public Administration Training Centre

Savar, Dhaka

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE : **Research for Governance (Seminar Paper) Part-II**

MODULE NO: 5

Marks Obtained

DATE: 15.06.2026

Code No.....................

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance, (Seminar Paper) Part-II**

MODULE NO: 5

DATE: 15.06.2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
3. *Put tick (√) marks on Evaluation method and Institute's Name.*

Name: **Khandoker Md Nahid Hasan**

Roll No: **118**

Title

Opportunities and Challenges of Technical and Vocational Education and Training (TVET) in Bangladesh in the Context of the Fourth Industrial Revolution (4IR)

1. Introduction

(a) Background

The Fourth Industrial Revolution (4IR) represents a new era of technological advancement characterized by the integration of digital, physical, and biological systems. Technologies such as Artificial Intelligence (AI), Robotics, Internet of Things (IoT), Big Data, Cloud Computing, Cybersecurity, Machine Learning, and Automation are transforming industries and redefining workforce requirements across the globe.

Unlike previous industrial revolutions, which were primarily driven by mechanization, electrification, and information technology, 4IR combines advanced technologies into intelligent systems capable of performing complex tasks with minimal human intervention. As a result, industries are becoming increasingly automated, interconnected, and data-driven.

Bangladesh is currently pursuing its national vision of "Smart Bangladesh 2041," which aims to transform the country into a technology-driven, innovation-based economy. The country enjoys a significant demographic dividend, with approximately one-third of its population consisting of young people. This youthful workforce has the potential to become a major economic asset if equipped with relevant skills and competencies.

Technical and Vocational Education and Training (TVET) plays a crucial role in developing skilled human resources capable of meeting labor market demands. TVET institutions provide practical and technical education that supports employment, entrepreneurship, and industrial productivity. In recent years, Bangladesh has expanded TVET programs through government initiatives, competency-based training systems, and partnerships with development organizations.

However, the rapid advancement of 4IR technologies requires significant transformation within the TVET sector. Traditional vocational training programs that focus primarily on manual and routine tasks may no longer be sufficient. Modern industries increasingly require workers who possess digital literacy, analytical thinking, technological competence, creativity, communication skills, and adaptability.

Therefore, evaluating the opportunities and challenges of TVET in the context of 4IR has become essential for ensuring sustainable economic development, employment generation, and global competitiveness.

(b) Problem Statement

Despite considerable progress in expanding TVET education, Bangladesh faces a substantial skills mismatch between vocational graduates and labor market demands. Many TVET institutions continue to emphasize traditional trades such as welding, tailoring, electrical installation, and basic mechanical work while giving limited attention to emerging technologies and digital competencies.

Several challenges hinder the modernization of TVET education. These include inadequate technological infrastructure, outdated curricula, insufficient funding, limited internet connectivity, shortage of qualified instructors, and weak collaboration between educational institutions and industries.

Moreover, many graduates lack practical experience, problem-solving abilities, communication skills, and workplace readiness. As industries increasingly adopt automation and smart manufacturing technologies, workers with only basic technical skills may struggle to remain competitive.

Failure to modernize TVET education could lead to rising youth unemployment, reduced industrial productivity, and declining economic competitiveness. Therefore, there is an urgent need to examine how TVET can adapt to the demands of the Fourth Industrial Revolution.

(c) Objectives

General Objective

To explore the opportunities and challenges of Technical and Vocational Education and Training (TVET) in Bangladesh in the context of the Fourth Industrial Revolution (4IR).

Specific Objectives

1. To identify the major opportunities created by 4IR technologies for TVET graduates and workforce development in Bangladesh.
2. To examine the challenges faced by TVET institutions in adapting to the demands of the Fourth Industrial Revolution.
3. To assess the role of modern skills, soft skills, and industry–institution collaboration in improving employability and workforce readiness.
4. To propose policy recommendations and strategic measures for modernizing TVET education to support Smart Bangladesh 2041.

(d) Rationale

This study is important because Bangladesh is undergoing rapid economic and technological transformation. The success of Smart Bangladesh 2041 largely depends on the availability of a skilled workforce capable of operating in technology-intensive environments.

The research contributes to understanding existing gaps within the TVET system and provides recommendations for improving workforce preparedness. Furthermore, the study offers practical insights for policymakers, educators, industry leaders, and development partners seeking to modernize vocational education.

By aligning TVET with 4IR requirements, Bangladesh can enhance employability, promote innovation, reduce poverty, and strengthen its position in global value chains.

2. Literature Review (Conceptual/Theoretical/Analytical Framework)

Concept of the Fourth Industrial Revolution

Klaus Schwab (2016) introduced the concept of the Fourth Industrial Revolution and described it as a transformation driven by advanced technologies that merge physical, digital, and biological systems. According to Schwab, technological convergence is fundamentally changing production systems, labor markets, and economic structures worldwide.

Human Capital Theory

Human Capital Theory emphasizes that investment in education and skills development increases productivity and economic growth. In the context of 4IR, technical skills, digital competencies, and lifelong learning have become essential forms of human capital.

TVET institutions serve as important mechanisms for developing industry-relevant human capital. Therefore, upgrading vocational education is necessary to maximize workforce productivity and competitiveness.

Skills Development and Future Employment

The World Economic Forum identifies analytical thinking, innovation, digital literacy, problem-solving, creativity, leadership, and adaptability as critical skills for future employment. Traditional vocational skills alone are insufficient in modern labor markets.

Research indicates that automation may eliminate routine jobs while simultaneously creating demand for workers capable of managing technology-driven systems. Consequently, continuous skill upgrading is becoming increasingly important.

TVET Development in Bangladesh

Bangladesh has made substantial progress in expanding vocational education through government initiatives such as:

- National Skills Development Policy (NSDP)
- Competency-Based Training and Assessment (CBT&A)
- Skills for Employment Investment Program (SEIP)
- National Technical and Vocational Qualification Framework (NTVQF)

Despite these initiatives, several studies highlight persistent challenges including outdated curricula, inadequate facilities, shortage of trainers, and limited private-sector engagement.

Industry-Academia Collaboration

Successful TVET systems in countries such as Germany, Singapore, and South Korea demonstrate the importance of close collaboration between industries and educational institutions.

Industry partnerships contribute to:

- Curriculum development
- Internship opportunities
- Apprenticeships

- Technology transfer
- Employment placement

Bangladesh can learn from these models to improve workforce readiness.

Analytical Framework

The study adopts an analytical framework consisting of three interconnected dimensions:

Input Factors

- Curriculum
- Infrastructure
- Teachers
- Technology
- Funding

Process Factors

- Training delivery
- Industry collaboration
- Practical learning
- Digital integration

Outcome Factors

- Employability
- Productivity
- Innovation
- Economic competitiveness

The interaction among these dimensions determines the effectiveness of TVET in preparing workers for the Fourth Industrial Revolution.

3. Methodology

Research Design

The study employed a descriptive and analytical research design to investigate the opportunities and challenges of TVET in Bangladesh under the 4IR framework.

Research Approach

A mixed-method approach combining qualitative and quantitative methods was adopted.

Sources of Data

Primary Data

Primary data were collected through:

- Structured Questionnaire Survey
- Focus Group Discussion (FGD)

The Focus Group Discussion was conducted on **21 May 2026 at Rangpur Polytechnic Institute.** Participants included TVET students, instructors, and technical education stakeholders. The discussion explored opportunities, challenges, employment prospects, industry collaboration, entrepreneurship opportunities, and policy requirements for TVET development in the context of 4IR.

The questionnaire survey collected respondents' opinions regarding awareness of 4IR technologies, quality of TVET education, infrastructure availability, curriculum relevance, employability, industry collaboration, and future employment opportunities.

Secondary Data

Secondary information was collected from:

- Academic journals
- Government reports
- UNESCO publications
- ILO reports
- World Bank documents
- World Economic Forum reports

Sampling Technique

Purposive sampling was used to select participants possessing relevant knowledge and experience regarding TVET and workforce development.

Data Analysis

Quantitative data were analyzed using percentages and descriptive statistics.

Qualitative data were analyzed through thematic analysis to identify recurring issues and emerging patterns.

Ethical Considerations

The study ensured:

- Voluntary participation
- Informed consent
- Confidentiality
- Academic integrity
- Proper citation of sources

4. Findings

The findings are organized according to the study objectives.

4.1 Opportunities of TVET in the Context of 4IR

Growth of Digital Economy

Bangladesh's expanding digital economy creates substantial opportunities for TVET graduates. Increasing demand exists for professionals skilled in:

- Software development
- Cybersecurity
- Cloud computing
- Data analytics
- Digital marketing

Smart Manufacturing

Industries are increasingly adopting automation, robotics, and smart production systems. TVET graduates trained in these technologies can access higher-quality employment opportunities.

Global Employment Opportunities

International labor markets increasingly require skilled workers capable of operating advanced technologies. Modernized TVET programs can enhance overseas employment prospects.

Entrepreneurship Development

Digital platforms and technological innovation create opportunities for self-employment and entrepreneurship among TVET graduates.

Government Support

Government initiatives supporting Smart Bangladesh 2041 provide favorable conditions for TVET modernization through infrastructure investment, policy reform, and digital transformation.

4.2 Major Challenges Facing TVET

Outdated Curriculum

Many institutions continue to focus on traditional vocational trades while giving insufficient attention to emerging technologies.

Lack of Modern Equipment

Numerous TVET institutions lack advanced laboratories, simulation facilities, robotics equipment, and digital learning resources.

Shortage of Qualified Instructors

Many teachers have limited exposure to contemporary industrial technologies and therefore struggle to deliver 4IR-related training.

Weak Industry Collaboration

Limited cooperation between industries and educational institutions reduces opportunities for practical training and workplace exposure.

Insufficient Soft Skills Development

Employers increasingly demand communication, teamwork, creativity, leadership, and critical thinking skills. These competencies remain inadequately addressed in many TVET programs.

Digital Divide

Students from rural and disadvantaged backgrounds often have limited access to computers, internet connectivity, and digital learning resources.

4.3 Importance of Soft Skills

The study found that technical competence alone is no longer sufficient for employment success.

Employers increasingly prioritize:

- Communication skills
- Teamwork
- Adaptability
- Problem-solving
- Leadership
- Creativity

Combining technical expertise with soft skills significantly improves employability.

4.4 Role of Industry-Academia Collaboration

Participants emphasized that stronger industry engagement would help:

- Align curricula with market demands
- Improve practical learning
- Facilitate internships
- Enhance job placement rates
- Support technology transfer

Public-private partnerships were identified as essential for TVET modernization.

4.5 Future Employment Trends

The study indicates that future job growth is likely in:

- Information Technology
- Artificial Intelligence
- Cybersecurity
- Renewable Energy
- Robotics and Automation
- E-commerce
- Smart Manufacturing

Conversely, routine and repetitive jobs face greater automation risks.

4.6 Findings from Focus Group Discussion (FGD)

The Focus Group Discussion conducted at Rangpur Polytechnic Institute revealed several important insights regarding the future of TVET education in Bangladesh.

Opportunities Identified by Participants

Participants emphasized that TVET can play a significant role in developing skilled human resources for smart industries and digital economies. Major opportunities identified include:

- Development of industry-ready technical manpower.
- Growth of ICT and freelancing opportunities.
- Entrepreneurship in electrical, mechanical, construction, textile, and renewable energy sectors.

- Increased overseas employment opportunities for skilled workers.
- Expansion of digital learning through smart classrooms, virtual laboratories, and simulation-based training.

Challenges Identified by Participants

The discussion highlighted several barriers to TVET modernization:

- Outdated curriculum that lacks AI, robotics, IoT, and automation-related content.
- Insufficient modern laboratories and digital infrastructure.
- Shortage of instructors trained in emerging technologies.
- Weak industry–institution collaboration.
- Negative social perception toward vocational education.
- Digital divide between urban and rural learners.
- Financial constraints in implementing technology-intensive training programs.

Employment Situation of TVET Graduates

Participants reported that TVET graduates are currently employed in garments, construction, electrical, automobile, ICT, telecommunication, and energy sectors. Opportunities for overseas employment and self-employment are also increasing. However, graduates often face skill mismatches, low salaries, and limited job placement support.

Future Employment Prospects

The participants predicted increasing demand for:

- Automation technicians
- Robotics specialists
- AI and IoT professionals
- Renewable energy technicians
- Cybersecurity experts
- Smart manufacturing technicians

The discussion concluded that modernization of TVET is essential to ensure future employability and economic competitiveness.

5. Conclusion

The Fourth Industrial Revolution presents both significant opportunities and serious challenges for Bangladesh's Technical and Vocational Education and Training sector.

The findings demonstrate that while Bangladesh has made considerable progress in expanding vocational education, substantial gaps remain between existing training systems and future labor market requirements. Rapid technological change is transforming industries and creating demand for workers with advanced technical and digital competencies.

TVET institutions possess tremendous potential to support national economic development and achieve the vision of Smart Bangladesh 2041. However, realizing this potential requires comprehensive reforms in curriculum, infrastructure, teacher training, and industry collaboration.

The discussion reveals that technological advancement should not be viewed solely as a threat. Although automation may replace certain routine occupations, it also creates new opportunities requiring higher-level skills. Therefore, the challenge is not the elimination of jobs but the transformation of skill requirements.

The study further highlights the importance of integrating soft skills with technical education. Graduates who combine technological expertise with communication, creativity, adaptability, and problem-solving abilities are more likely to succeed in future labor markets.

Ultimately, modernization of TVET is not merely an educational issue but a national development priority. A responsive, innovative, and industry-oriented TVET system will be essential for ensuring sustainable economic growth and global competitiveness.

6. Recommendations

Based on the findings, the following recommendations are proposed:

Curriculum Reform

TVET curricula should be updated regularly to incorporate:

- Artificial Intelligence
- Robotics
- Data Analytics
- Cybersecurity
- IoT
- Cloud Computing

Infrastructure Development

Government and private sectors should invest in:

- Smart laboratories
- Digital classrooms
- High-speed internet
- Modern training equipment

Teacher Capacity Building

Continuous professional development programs should be introduced for TVET instructors to enhance their technological competencies.

Strengthening Industry Collaboration

Formal partnerships between industries and TVET institutions should support:

- Apprenticeships
- Internships
- Joint curriculum development
- Equipment sharing

Integration of Soft Skills

Communication, leadership, teamwork, creativity, and problem-solving should become mandatory components of vocational education.

Public-Private Partnerships

PPP models should be expanded to mobilize resources and facilitate technology transfer.

Lifelong Learning Programs

Flexible reskilling and upskilling programs should be introduced to support continuous workforce adaptation.

Rural Inclusion

Special initiatives should ensure that rural and disadvantaged populations gain access to quality digital and vocational education.

7. Declaration

I declare that this paper contains neither any plagiarized material nor any AI-generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

8. References

Ahmed, N. (2021). Industry-Academia Collaboration and Skill Development in Bangladesh. Asian Journal of Vocational Education.

Asian Development Bank. (2022). Skills for Inclusive Growth in Bangladesh.

Bangladesh Technical Education Board (BTEB). Annual Reports and Curriculum Frameworks.

Government of Bangladesh. (2011). National Skills Development Policy (NSDP).

International Labour Organization. (2022). Skills Development and the Future of Work.

Rahman, M., & Islam, S. (2020). Challenges of Technical and Vocational Education in Bangladesh. Journal of Education and Development Studies.

Schwab, K. (2016). The Fourth Industrial Revolution. World Economic Forum.

UNESCO. (2021). Technical and Vocational Education and Training for the Future.

World Bank. (2021). Bangladesh Development Update: Moving Toward Smart Economy.

World Economic Forum. (2023). Future of Jobs Report.

Annexure

Annexure A: Questionnaire

Topic:

Opportunities and Challenges of Technical and Vocational Education and Training (TVET) in Bangladesh in the Context of the Fourth Industrial Revolution (4IR)

Annexure-A: Questionnaire Survey Instrument

The questionnaire included 25 structured questions covering:

- Demographic information
- Awareness of 4IR
- Importance of TVET
- Infrastructure and technology availability
- Curriculum relevance
- Industry collaboration
- Automation threats
- Future employment opportunities
- Skills required for future jobs

The questionnaire was administered among students, teachers, trainers, industry representatives, and professionals to gather insights regarding TVET preparedness for the Fourth Industrial Revolution.

Annexure-B: Focus Group Discussion (FGD) Report

Under Annexure-B, include:

- Title of FGD
- Date: 21 May 2026

- Venue: Rangpur Polytechnic Institute
- Participants
- Key Discussion Areas
- Opportunities Identified
- Challenges Identified
- Employment Situation of TVET Graduates
- Future Employment Prospects
- Recommendations from Participants

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Md. Hemayet Uddin

Roll No: 119

Seminar Paper

On

Effectiveness of Public Transport Route Permit in Dhaka City

Submitted by

Md. Hemayet Uddin
Roll No: 119

157th Advanced Course on Administration and Development
Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

Effectiveness of Public Transport Route Permit in Dhaka City

Abstract

Public transportation plays a vital role in ensuring urban mobility and supporting economic activities in Dhaka City, one of the most densely populated metropolitan areas in the world. The route permit system, administered by the Bangladesh Road Transport Authority, is intended to regulate public transport operations, maintain route discipline, and improve service quality. However, concerns regarding route overlap, unauthorized operations, traffic congestion, and weak regulatory enforcement have raised questions about the effectiveness of the existing route permit system. This study examines the effectiveness of public transport route permits in Dhaka City and evaluates their role in ensuring efficient, safe, and organized transportation services. The study adopts a descriptive and analytical research design and utilizes a case study approach to investigate route permit management practices and their impact on urban transport operations. The research is exploratory, descriptive, and evaluative in nature, focusing on identifying the strengths and weaknesses of the current permit system. Both primary and secondary data sources are employed. Primary data are collected through structured questionnaire surveys, Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), and field observations involving bus passengers, drivers, helpers, transport operators, BRTA officials, traffic police personnel, urban transport experts, and local government representatives. Secondary data are obtained from government reports, transport regulations, route permit records, academic literature, policy documents, and publications related to urban transport management. The findings are expected to reveal that while the route permit system contributes to transport regulation and operational control, several challenges hinder its effectiveness, including weak monitoring, political influence, excessive route competition, and inadequate enforcement mechanisms. The study proposes policy reforms, stronger regulatory oversight, improved coordination among stakeholders, and the adoption of modern transport management systems to enhance the effectiveness of route permit administration and promote sustainable urban mobility in Dhaka City.

Keywords: Public Transport, Route Permit System, Urban Mobility, Transport Management, Dhaka City.

Introduction:

1.1 Background of the Study:

Dhaka, the capital of Bangladesh, is one of the fastest-growing megacities in the world, with a population exceeding 20 million and projected to grow further by 2035. Rapid urbanization, increasing vehicle ownership, and limited transport infrastructure have intensified congestion and environmental degradation. The city's public transport system remains heavily dependent on buses operating under a fragmented and often poorly regulated route permit system. The existing route permit framework has been criticized for inefficiency, lack of coordination, and weak enforcement. Multiple operators often compete on the same routes without proper scheduling, leading to unsafe driving, passenger harassment, and operational inefficiencies. Instead of ensuring organized service delivery, route permits are frequently issued without comprehensive planning, contributing to oversupply in some corridors and shortages in others.

Moreover, outdated and poorly maintained buses dominate the system, failing to meet the mobility demands of a large urban population. Weak regulatory oversight allows unauthorized vehicles and informal paratransit services to operate alongside permitted buses, further undermining system effectiveness. As a result, traffic congestion, road accidents, and air pollution have reached alarming levels, with air quality often exceeding safe limits set by the World Health Organization. Recent initiatives, such as the introduction of bus route rationalization and the development of mass transit systems like metro rail, aim to reform the route permit system. However, challenges remain in implementation, institutional coordination, and enforcement. In this context, evaluating the effectiveness of public transport route permits is crucial. A well-structured and properly enforced permit system can improve service quality, reduce congestion, enhance safety, and contribute to a more sustainable urban transport system in Dhaka.

1.2 Problem Statement:

Despite various reforms, the public transport route permit system in Dhaka remains largely ineffective in ensuring efficient, safe, and reliable services. The current system is characterized by fragmented ownership, unplanned route allocation, and weak regulatory enforcement, resulting in excessive competition among operators on certain routes and inadequate service on others. This imbalance contributes to traffic congestion, unsafe driving practices, and poor passenger experience. Additionally, the presence of unauthorized vehicles and outdated buses undermines the intended purpose of route permits. Although initiatives like bus route rationalization have been introduced, their impact is still limited. Therefore, it is necessary to critically assess whether the existing route permit system effectively addresses urban transport challenges or requires significant policy and institutional reforms.

Research Gap

Although several studies have addressed the transportation problems of Dhaka, limited research has specifically focused on the effectiveness of the public transport route permit system as a regulatory tool. Most existing studies emphasize general traffic congestion, air pollution, and infrastructure limitations, rather than critically analyzing how route permits are allocated, monitored, and enforced. There is also a lack of empirical evidence on how the current permit system influences service quality, route efficiency, and passenger safety. Furthermore, previous research has not sufficiently examined the role of institutional coordination and governance failures in weakening the system. The impact of unauthorized vehicles and informal transport services on the effectiveness of route permits is also underexplored. This study aims to fill these gaps by providing a comprehensive assessment of the route permit system and its contribution to urban transport management in Dhaka city.

1.3 Objectives of the study:

Specific Objectives

i. To evaluate the effectiveness of the existing public transport route permit system in managing service quality and traffic flow in Dhaka;

ii. To examine the impact of route permit practices on congestion, safety, and operational efficiency of public transport; and

iii. To identify key challenges and recommend improvements for a more organized and sustainable route permit system in Dhaka.

1.4 Research Question

i. How effective is the current public transport route permit system in Dhaka in ensuring efficient service delivery?

ii. What impact does the route permit system have on traffic congestion, safety, and operational efficiency of public transport?

iii. What are the major challenges affecting the effectiveness of the route permit system in Dhaka city?

1.5 Justification of the Study:

The effectiveness of the public transport route permit system in Dhaka is a critical issue due to the city's rapidly growing population, increasing vehicle numbers, and severe traffic congestion. Despite various policy efforts, the transport system remains uncoordinated, unsafe, and inefficient, largely due to weaknesses in route permit allocation and enforcement. This study is justified because it seeks to evaluate how far the existing permit system contributes to organized public transport services and whether it meets the mobility needs of urban residents. It also examines persistent problems such as route duplication, unregulated competition, and the operation of outdated vehicles. The findings will help policymakers, transport authorities, and planners identify gaps in the current system and develop more effective strategies for improving public transport governance, reducing congestion, and ensuring safer and more reliable mobility in Dhaka city.

2.0 Literature Review:

Public transport plays a vital role in ensuring urban mobility in Dhaka City, one of the most densely populated megacities in the world. The route permit system, administered mainly by the Bangladesh Road Transport Authority, is intended to regulate bus operations, reduce traffic congestion, maintain passenger safety, and ensure efficient transport services. However, existing literature indicates that the effectiveness of the route permit system in Dhaka remains limited due to weak institutional coordination, poor enforcement, political influence, and unplanned transport management.

Several scholars have examined the structural weaknesses of Dhaka's public transport system. Rahman and Nahrin (2012) found that bus services in Dhaka suffer from irregular schedules, overcrowding, long waiting times, and inadequate service quality. Their study revealed that although passengers considered bus fares affordable, they were dissatisfied with operational efficiency and service reliability. The authors argued that ineffective route management and lack of monitoring of route permits contributed significantly to these problems.

Niger (2019) emphasized the need for rationalization of the public transport network in Dhaka through hierarchical route planning and multimodal integration. According to the study, the current route permit system allows too many buses to operate on the same profitable corridors while neglecting less profitable but necessary routes. This creates unhealthy competition among operators, excessive road congestion, and inefficient utilization of transport infrastructure. The study suggested that a scientifically designed route hierarchy and centralized management system could improve transport effectiveness.

Research on traffic management in Dhaka also highlights institutional inefficiency as a major obstacle. Onyemaobi (2017) observed that despite various traffic management initiatives, Dhaka continues to experience severe congestion due to fragmented governance and weak implementation of transport policies. The study noted that the route permit process often lacks transparency and proper monitoring, which allows unauthorized or unfit vehicles to operate on city roads. Consequently, the expected economic and social benefits of regulated public transport are not fully achieved.

Another important issue discussed in the literature is the institutional capacity of the Bangladesh Road Transport Authority. Research on transportation governance in Dhaka indicates that BRTA faces shortages of manpower, logistics, and technological support. As a result, enforcement of route permit conditions, vehicle fitness regulations, and driver licensing remains weak. The literature also points to corruption and political interference within the transport sector, which undermine accountability and regulatory effectiveness.

Studies focusing on passenger experience further demonstrate the limitations of the route permit system. Shoma and Chakma (2007) examined the effectiveness of bus stops and found that poor planning of routes and stoppages negatively affected commuter convenience and service quality. Similarly, Satu and Shakil (2017) evaluated articulated bus services in Dhaka and concluded that although the service had potential to improve mass transit capacity, operational inefficiencies and inadequate route management reduced its overall effectiveness.

Recent literature on sustainable transport development also stresses the importance of integrated transport governance. Bari (2023) argued that Dhaka's transport challenges cannot be solved solely through infrastructure development unless regulatory systems, including route permit management, are modernized and coordinated. The study recommended digital monitoring systems, route franchising, and institutional reforms to improve public transport governance and sustainability.

Public opinion and community discussions also reflect dissatisfaction with the current transport system. Several recent online discussions and reports have highlighted concerns regarding corruption, fake licenses, unfit vehicles, and uncontrolled route competition in Dhaka's transport sector. These perceptions reinforce findings from academic studies that weak governance and ineffective regulation continue to hinder the success of route permit policies.

Overall, the literature suggests that the public transport route permit system in Dhaka City has not achieved its intended effectiveness due to inadequate planning, weak enforcement, corruption, and institutional fragmentation. Most researchers recommend integrated route rationalization, stronger regulatory oversight, digital monitoring, and policy reforms to improve service quality and transport sustainability in Dhaka.

3.0 Methodology:

This study adopted a mixed-method research approach combining both qualitative and quantitative methods to assess the effectiveness of the public transport route permit system in Dhaka city. The mixed-method approach was appropriate because the study aimed to evaluate administrative efficiency, transport management, service quality, regulatory enforcement, and public satisfaction from both statistical and experiential perspectives.

Research Design

The study followed a descriptive and analytical research design. A case study approach was used to examine the route permit management system and its impact on urban public transportation in Dhaka city. The study focused on the operational practices, policy implementation, and challenges associated with route permit administration.

Nature of the Study

The research was exploratory, descriptive, and evaluative in nature. It identified the strengths and weaknesses of the current route permit system and evaluated its effectiveness in ensuring efficient, safe, and organized public transport services in Dhaka city.

Study Area

The study area was Dhaka city, particularly selected major bus routes and transport terminals under the jurisdiction of the Bangladesh Road Transport Authority. Important transport corridors such as Gabtoli, Mohakhali, Sayedabad, and Farmgate were included for data collection.

Sources of Data

Both primary and secondary data were used in the study.

Primary Data

Primary data were collected through:

- Structured questionnaire survey
- Key Informant Interviews (KII)
- Focus Group Discussions (FGD)
- Field observation

The respondents included:

- Bus passengers
- Bus drivers and helpers
- Bus owners and transport operators
- Officials of Bangladesh Road Transport Authority
- Traffic police officials
- Urban transport experts
- Local government representatives

Secondary Data

Secondary data were collected from:

- Government reports and policy documents
- Route permit records and transport regulations
- Academic journals and research articles
- Reports of transport organizations
- Newspapers and online publications
- Dhaka transport master plans and policy papers
- Publications of Dhaka Transport Coordination Authority

4.0 Data Analysis and Findings:

4.1 Data Collection & Procedure of KII:

The first objective of the study was to assess the effectiveness of the existing public transport route permit system in terms of service quality and traffic management in Dhaka. The second objective was to review the impact of the route permit system on public transport congestion, safety and operational efficiency, and the third objective was to identify the main obstacles to establishing a more well-organized and sustainable route permit system in Dhaka and to make recommendations for its improvement. Data were collected from both primary and secondary sources, prioritizing the objectives. Primary data were collected through interviews (KII) with bus passengers, bus drivers and helpers, bus owners and transport operators, Bangladesh Road Transport Authority officials, traffic police officers, urban transport experts and local government representatives.

The main objective of the interviews was to collect information from bus passengers, bus drivers and helpers, bus owners and transport operators, Bangladesh Road Transport Authority officials, traffic police officers, urban transport experts and local government representatives. They assessed the effectiveness of the existing public transport route permit system in terms of service quality and traffic management in Dhaka, reviewed the impact of the route permit system on public transport congestion, safety and operational efficiency, and expressed their views on the main obstacles to establishing a more well-organized and sustainable route permit system in Dhaka and provided recommendations to overcome those obstacles. In order to collect data appropriately, interviews were conducted through checklists and verbally on the objectives and opinions of the study. The interviews were conducted using both open and closed questions. The checklist had a few questions that were simple, comprehensive and easy to understand.

4.2 Data Analysis:

The researcher himself collected the data by supplying checklist containing few questions among the respondents.

The data analysis has been shown in the table below: -

Demographic Information

4.2.1 Bus Use Frequency in Dhaka City

Table-1: Bus Use Frequency in Dhaka City

Response	Percentage (%)
Daily	30%
Several times a week	35%
Once a week	20%
Less than once a week	13%
Never	2%
Total	**100%**

Source: Questionnaire Survey, 2026

The findings indicate that public transport use in Dhaka City is very frequent among most respondents. The largest group (35%) uses buses several times a week, while 30% travel daily, showing strong dependence on the bus system for regular commuting. A further 20% use buses once a week, and 13% use them less than once a week, suggesting occasional or situational use depending on need and convenience. Only a very small proportion (2%) reported never using buses, indicating that almost all respondents rely on public transport to some extent. Overall, the results highlight that buses remain a vital mode of urban transportation in Dhaka City, despite challenges related to service quality, congestion, and comfort.

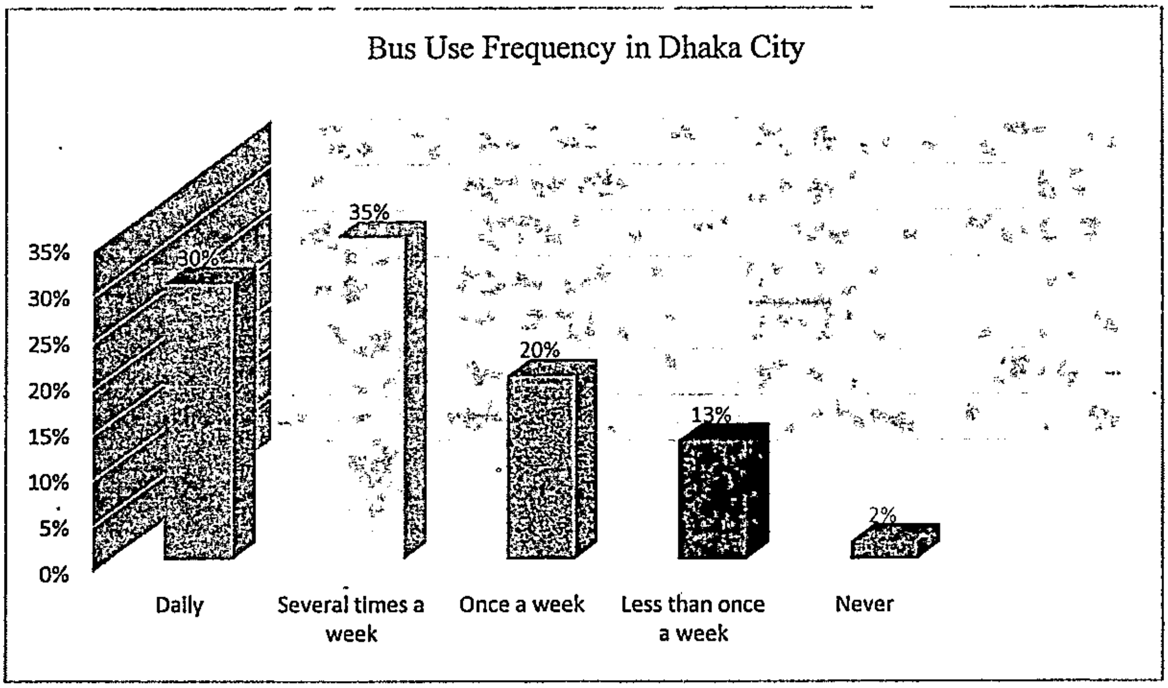


Figure-1: Bus Use Frequency in Dhaka City

General Perception of Public Transport Services

4.2.2 Quality of Bus Service in Dhaka City

Table-2: Bus service quality

Response	Percentage (%)
Very Poor	22%
Poor	33%
Average	28%
Good	12%
Very Good	5%
Total	**100%**

Source: Questionnaire Survey, 2026

The overall perception of public bus service quality in Dhaka City is largely negative. A significant proportion of respondents (33%) rated the service as "Poor," while 22% considered it "Very Poor," indicating widespread dissatisfaction with comfort, safety, and reliability. Around 28% of respondents rated the service as "Average," suggesting that some users find it acceptable but still not satisfactory. Only a small segment of respondents rated the service positively, with 12% describing it as "Good" and just 5% as "Very Good." Overall, the findings clearly show that the majority of users are not satisfied with the current condition of public bus services in Dhaka City, highlighting the need for improved service quality, better management, and enhanced passenger facilities.

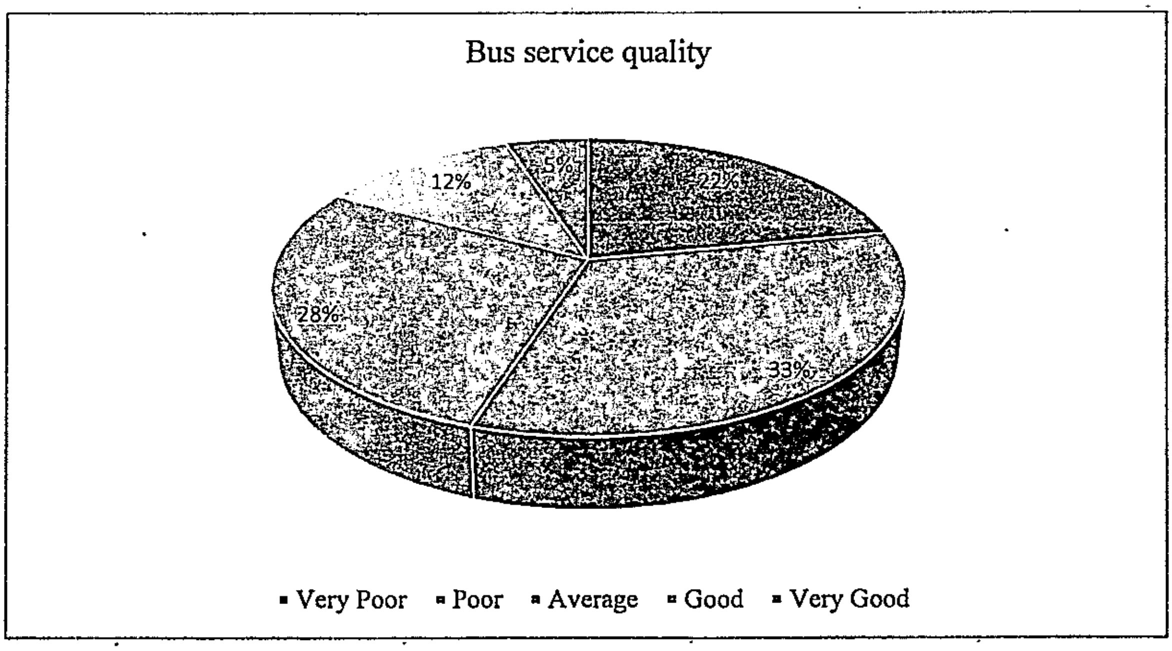


Figure-2: Quality of Bus Service in Dhaka City

4.2.3 Major Problems in Bus Transport in Dhaka City

Table-3: Main problems of transportation

Problem	**Percentage (%)**
Traffic Congestion	18%
Long Waiting Times	12%
Overcrowding	20%
Unsafe Driving Practices	10%
Passenger Harassment	8%
Poor Vehicle Condition	9%
Lack of Route Information/Clarity	6%
Unpredictable Schedules	7%
High Fares	5%
Lack of Proper Bus Stops	5%
Total	**100%**

Source: Questionnaire Survey, 2026

The findings reveal that public transport users in Dhaka City face multiple interrelated challenges, with overcrowding (20%) and traffic congestion (18%) emerging as the most significant problems. These issues directly affect travel comfort and increase commuting time, making daily travel highly stressful for passengers. Long waiting times (12%) and unsafe driving practices (10%) further reduce service reliability and raise safety concerns among users. Additionally, poor vehicle condition (9%) and passenger harassment (8%) highlight serious quality and security issues within the system. Other problems such as unpredictable schedules (7%), lack of route information (6%), high fares (5%), and inadequate bus stop facilities (5%) also contribute to an inefficient and user-unfriendly public transport system. Overall, the results indicate that Dhaka's bus transport system suffers from both operational inefficiencies and governance-related weaknesses. The combination of congestion, poor management, and lack of passenger-oriented services significantly reduces overall satisfaction, emphasizing the urgent need for integrated transport planning, strict regulatory enforcement, and improved service quality.

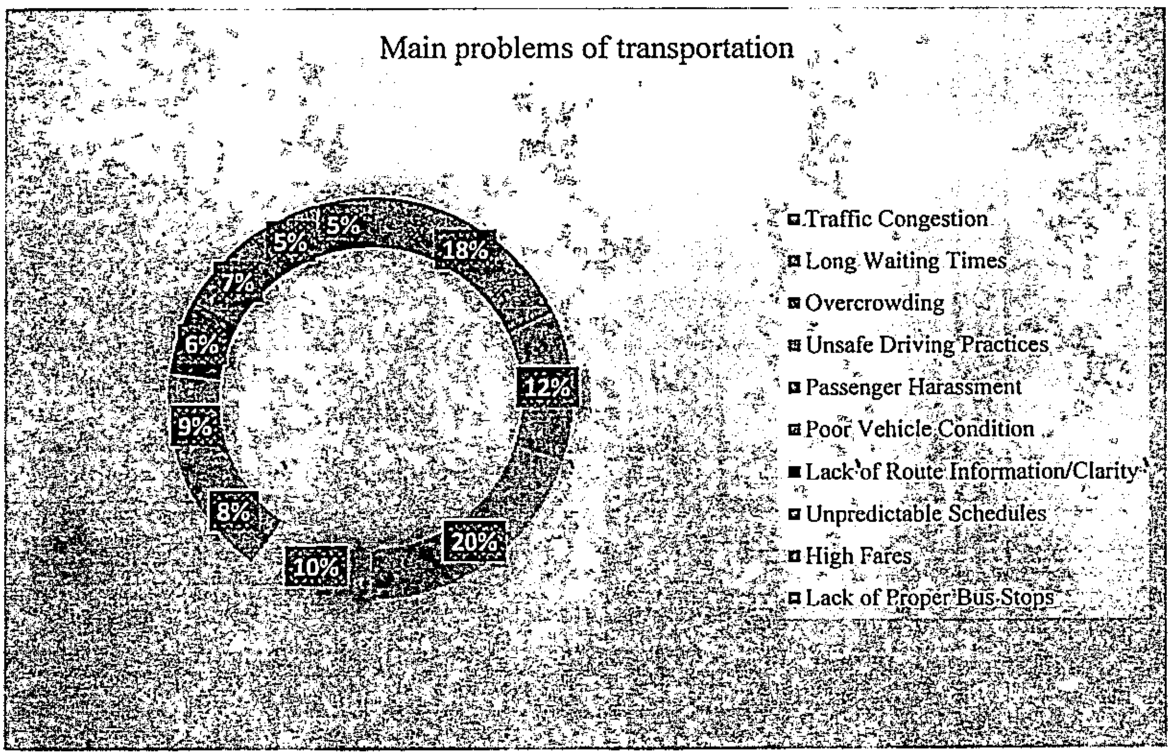


Figure-3: Major Problems in Bus Transport in Dhaka City

Effectiveness of the Route Permit System

4.2.4 Effect of Route Permit System on Transport Organization

Table-4: Impact of the root permit system

Response	Percentage (%)
Not at all	20%
To a small extent	28%
To a moderate extent	30%
To a large extent	15%
To a very large extent	7%
Total	**100%**

Source: Questionnaire Survey, 2026

The findings suggest that the effectiveness of the current route permit system in organizing public transport services in Dhaka City is perceived as generally limited. The largest share of respondents (30%) believes that it contributes only to a moderate extent, indicating that while the system has some role in structuring routes, it is not fully effective in ensuring orderliness. A combined 48% of respondents (28% small extent and 20% not at all) express a negative view, highlighting significant dissatisfaction with how the permit system regulates bus operations. Only a small proportion of respondents feel positively about the system, with 15% indicating a large extent and just 7% a very large extent. This shows that effective enforcement and management of the route permit system are weak in practice. Overall, the results imply that the current system is not sufficiently strong to ensure disciplined, well-coordinated public transport services. Strengthening regulatory enforcement, reducing irregular permits, and improving monitoring mechanisms are essential to make the system more effective and responsive to urban transport needs.

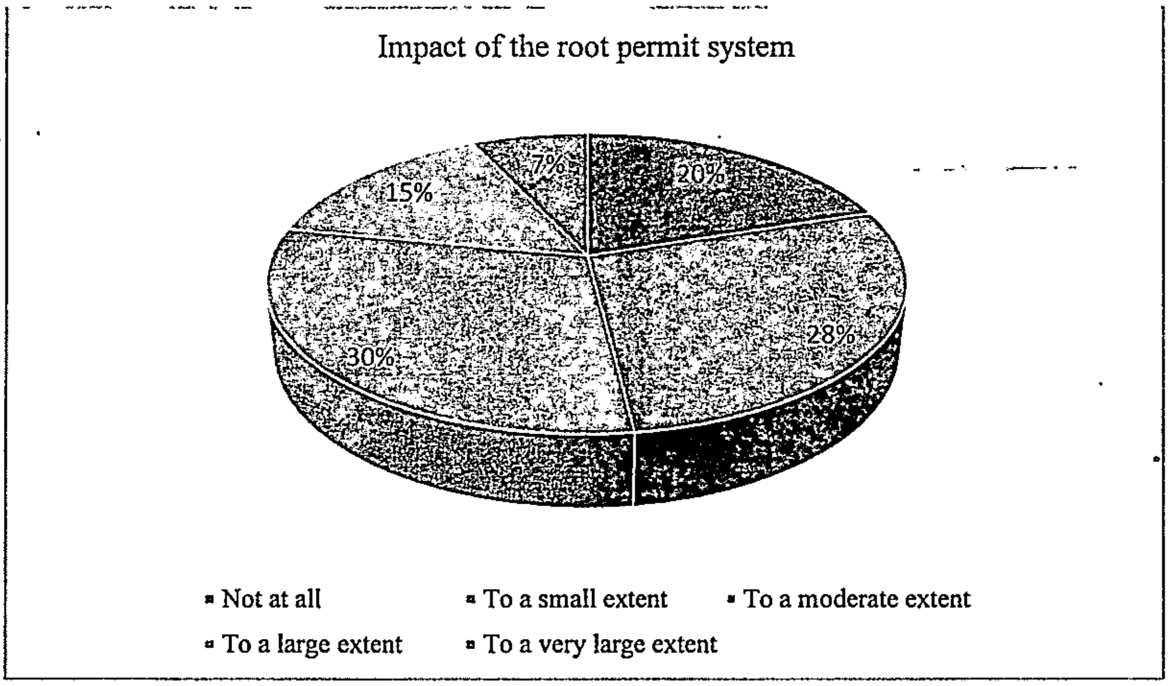


Figure-4: Effect of Route Permit System on Transport Organization

4.2.5 Impact of Route Permit System on Key Transport Aspects

Table-5: Impact of the route permit system

Aspect	Very Negative	Negative	Neutral	Positive	Very Positive	Percentage (%)
Traffic Congestion	30%	35%	20%	10%	5%	100%
Passenger Safety	25%	30%	25%	15%	5%	100%
Operational Efficiency	20%	32%	28%	15%	5%	100%
Service Quality	22%	33%	25%	15%	5%	100%
Route Rationalization	15%	25%	30%	20%	7%	100%

Source: Questionnaire Survey, 2026

The findings reveal that the route permit system in Dhaka City has a generally limited and often negative impact across most transport-related aspects. In terms of traffic congestion, a combined 65% of respondents (Very Negative and Negative) believe the system fails to reduce congestion effectively, indicating route duplication and poor enforcement. Similarly, passenger safety is perceived as weak, with 55% negative responses, reflecting concerns about unsafe operations and insufficient regulatory monitoring. For operational efficiency and service quality, the results also show a dominance of negative and neutral opinions, suggesting that the system has not significantly improved scheduling, reliability, or passenger satisfaction. However, compared to other areas, route rationalization receives relatively better feedback, with 27% positive responses, indicating some limited improvement in organizing routes, although inefficiencies still persist.

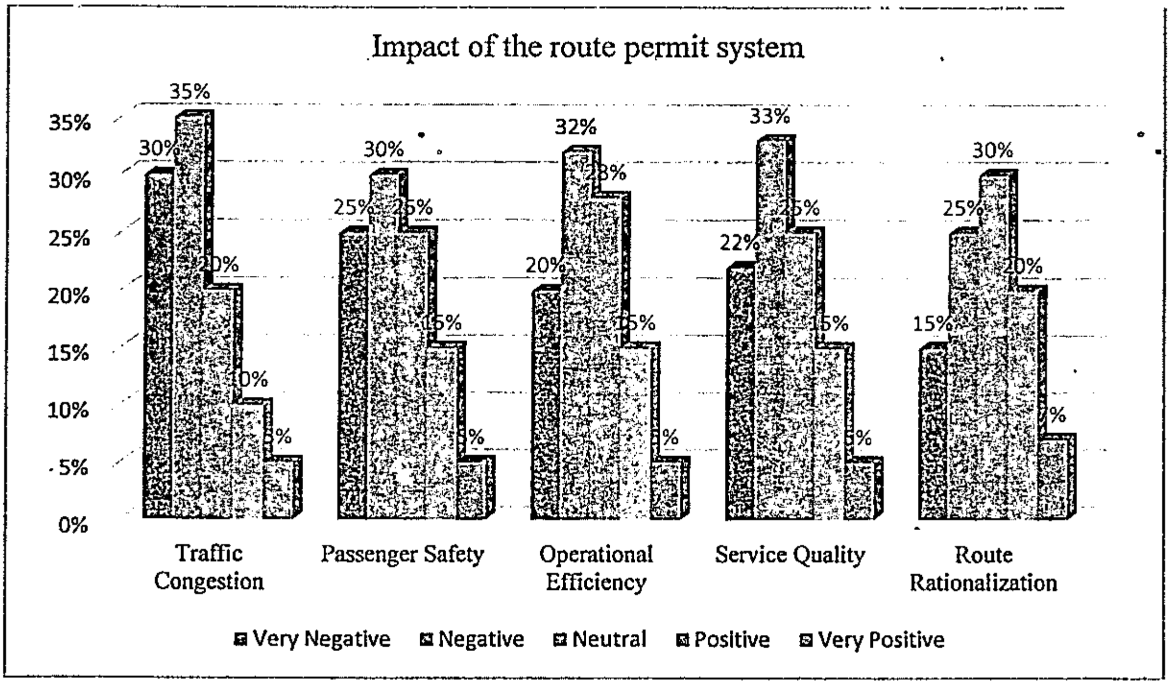


Figure-5: Impact of Route Permit System on Key Transport Aspects

Challenges and Issues

4.2.6 Major Challenges Affecting Route Permit System in Dhaka City

Table-6: Main challenges

Challenge	Percentage
Fragmented ownership of bus companies	10%
Unplanned route allocation	12%
Weak regulatory enforcement (BRTA, Traffic Police)	14%
Lack of coordination among transport stakeholders	11%
Political influence in permit allocation	13%
Operation of unauthorized vehicles	10%

Outdated and poorly maintained buses	9%
Corruption in permit issuance and enforcement	10%
Lack of transparency in the system	6%
Insufficient manpower/logistics for monitoring	5%
Total	**100%**

Source: Questionnaire Survey, 2026

The effectiveness of the route permit system in Dhaka City is influenced by several interconnected governance, administrative, and structural challenges. The most significant issue is weak regulatory enforcement by responsible authorities such as BRTA and Traffic Police (14%), followed closely by political influence in permit allocation (13%), both of which undermine proper rule enforcement and institutional accountability. Unplanned route allocation (12%) further intensifies congestion and inefficiency in public transport operations. Additionally, lack of coordination among transport stakeholders (11%) contributes to fragmented planning and weak system integration. Other notable challenges include fragmented ownership of bus companies (10%), corruption in permit issuance and enforcement (10%), and the operation of unauthorized vehicles (10%), all of which reduce transparency and weaken regulatory control. The presence of outdated and poorly maintained buses (9%) negatively affects service quality and passenger safety. Although comparatively lower in proportion, lack of transparency (6%) and insufficient manpower or logistics for monitoring (5%) still play a role in limiting effective oversight and long-term improvements. Overall, the system suffers from deep-rooted governance failures, coordination gaps, and enforcement weaknesses. Comprehensive reforms focusing on stronger regulation, reduced political interference, and improved transparency are essential for achieving an efficient and sustainable public transport system in Dhaka City.

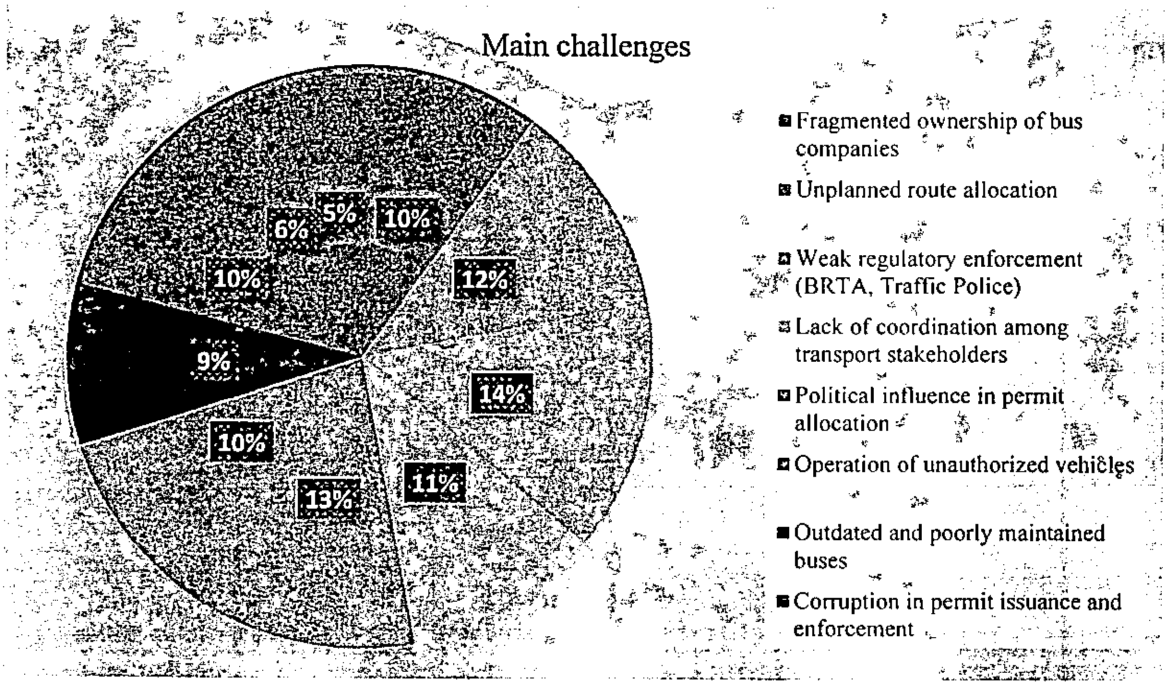


Figure-6: Major Challenges Affecting Route Permit System in Dhaka City

4.2.7 Significance of Unauthorized Vehicles & Informal Paratransit in Undermining Route Permit System

Table-7: The importance of paratransit

Response Category	Percentage
Not significant	3%
Slightly significant	7%
Moderately significant	15%
Very significant	35%
Extremely significant	40%
Total	**100%**

Source: Questionnaire Survey, 2026

The findings indicate that unauthorized vehicles and informal paratransit services are perceived as a **highly critical challenge** undermining the effectiveness of the route permit system in Dhaka City. A substantial majority of respondents consider this issue to be either very significant or extremely significant, highlighting its deep impact on urban transport governance. The largest proportion of respondents (40%) identified the problem as **extremely significant**, suggesting that informal transport operations and unauthorized vehicles are not just peripheral issues but rather central factors disrupting the formal route permit system. These services often operate outside regulatory frameworks, creating unfair competition for licensed bus operators and weakening enforcement mechanisms. Additionally, 35% of respondents rated the issue as **very significant,** reinforcing the view that informal and unauthorized transport plays a major role in route duplication, traffic congestion, fare irregularities, and reduced service quality in the city. A smaller portion of respondents (15%) considered it **moderately significant**, indicating that while some believe the impact is important, it may vary depending on specific routes or areas. Only a limited number of respondents viewed it as **slightly significant (7%)** or **not significant (3%)**, showing that very few consider it a minor issue in the current transport system. Overall, the results clearly demonstrate that unauthorized vehicles and informal paratransit services are a **structural and systemic threat** to the route permit system in Dhaka City. Their widespread operation undermines regulatory control, reduces transport efficiency, and weakens formal governance structures. Addressing this issue requires strict enforcement of transport regulations, better coordination among regulatory bodies, and integration of informal transport operators into a regulated framework where possible.

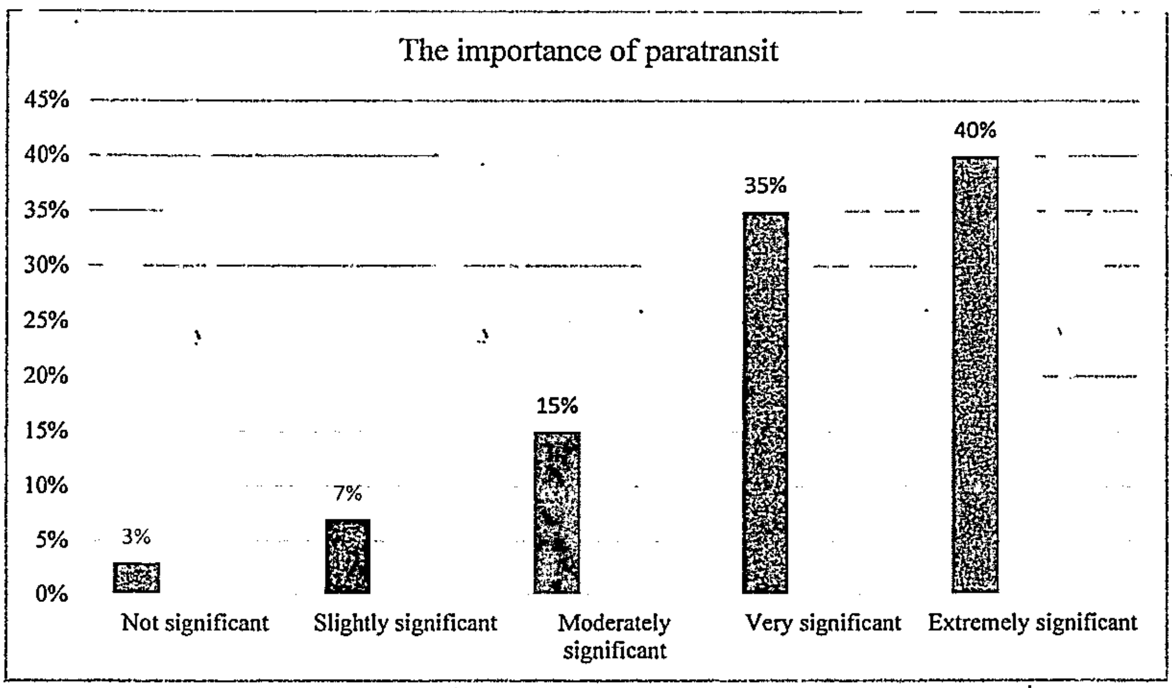


Figure-7: Significance of Unauthorized Vehicles & Informal Paratransit in Undermining Route Permit System

Recommendations and Suggestions

4.2.8 Measures to Improve the Effectiveness of Public Transport Route Permit System in Dhaka City

Table-8: Steps to improve the effectiveness of the route permit system

Proposed Measures	Description
Strengthening regulatory enforcement	BRTA and Traffic Police should strictly enforce existing rules to ensure compliance of route permits and reduce violations.
Digitalization of permit system	Introducing an online, transparent, and centralized digital platform for issuing and monitoring route permits to reduce corruption and manual interference.
Reducing political influence	Ensuring merit- and rule-based permit allocation by minimizing political interference in decision-making processes.
Integrated route planning	Developing a scientific and demand-based route planning system to reduce overlap, congestion, and inefficiency.
Coordination among stakeholders	Improving collaboration between BRTA, city corporations, transport owners' associations, and law enforcement agencies.
Elimination of unauthorized vehicles	Strict crackdown on illegal and informal paratransit services operating without permits.
Modernization of bus fleet	Replacing old and unsafe buses with modern, environment-friendly, and well-maintained vehicles.
Anti-corruption measures	Strengthening monitoring, audits, and accountability mechanisms to reduce corruption in permit issuance and enforcement.
Capacity building of authorities	Increasing manpower, training, and logistical support for monitoring and enforcement agencies.
Public transparency and accountability	Publishing route permits, decisions, and enforcement data publicly to ensure transparency and citizen oversight.

Improving the route permit system in Dhaka City requires a **multi-dimensional reform approach** combining regulatory strengthening, digital transformation, and institutional accountability. The most critical priorities include reducing political interference, eliminating corruption, and introducing a transparent digital permit management system. At the same time, coordinated planning and strict enforcement against unauthorized transport operators are essential to ensure a more efficient, safe, and sustainable public transport system.

4.2.9 Other Suggestions or Comments Regarding Public Transport in Dhaka City

Table-9: Other Suggestions or Comments Regarding Public Transport in Dhaka City

Category of Suggestions	Key Comments / Suggestions
Policy and Governance Reform	Stronger implementation of transport laws, reduction of political interference, and ensuring accountability of regulatory bodies like BRTA.
Digitalization and Smart Transport	Introduction of GPS-based tracking, e-ticketing, and fully digital route permit management system to improve transparency and efficiency.
Service Quality Improvement	Improving bus punctuality, reducing overcrowding, ensuring fixed fares, and enhancing passenger comfort.
Fleet Modernization	Replacement of old, unsafe buses with modern, eco-friendly, and air-conditioned vehicles to improve safety and service quality.
Traffic Management	Better traffic control, dedicated bus lanes, and improved road infrastructure to reduce congestion and delays.
Regulation of Informal Transport	Strict control or integration of informal paratransit services to reduce disorder in the transport system.
Passenger Rights Protection	Ensuring safe travel, complaint mechanisms, and awareness programs for passengers' rights.
Coordination Among Agencies	Better coordination between city corporations, police, BRTA, and transport associations for integrated planning.

4.3 Qualitative data analysis

The qualitative findings reveal that the public transport route permit system in Dhaka City has a mixed level of effectiveness. Most respondents, including passengers, drivers, and transport operators, acknowledged that the route permit system provides a basic regulatory framework for organizing bus routes and controlling transport operations. It helps to some extent in reducing route confusion and ensuring designated route operations under the supervision of the Bangladesh Road Transport Authority (BRTA). However, many respondents highlighted significant challenges in implementation. These include weak enforcement of rules, frequent route violations, overlapping routes, and informal practices such as unauthorized vehicle operation. Drivers and operators also reported political influence and lack of monitoring as major barriers to effective route management. Passengers expressed dissatisfaction with irregular services, overloading, and congestion. Overall, the qualitative analysis suggests that although the route permit system has a regulatory structure in place, its practical effectiveness is limited due to poor enforcement, governance challenges, and lack of coordination among transport authorities and stakeholders.

5.0 Conclusion and Recommendations:

5.1 Conclusion:

The study concludes that the public transport route permit system in Dhaka City plays an important regulatory role in organizing urban bus services, but its overall effectiveness remains limited. While the system under the supervision of the Bangladesh Road Transport Authority provides a formal framework for route allocation and transport management, its implementation is weakened by several operational and institutional challenges. These include weak enforcement of rules, overlapping and unauthorized routes, political influence, and insufficient monitoring mechanisms. The findings show that although the route permit system contributes to some level of order in urban transport operations, it has not been fully successful in ensuring safe, efficient, and disciplined public transportation in Dhaka City. Frequent route violations, congestion, and passenger dissatisfaction indicate gaps between policy formulation and practical execution. Overall, the study suggests that strengthening regulatory enforcement, improving coordination among stakeholders, and introducing digital transport management systems are essential for enhancing the effectiveness of the route permit system and ensuring a more efficient and sustainable urban transport network in Dhaka City.

5.2 Recommendations:

- ✓ Strengthen enforcement of route permit regulations.
- ✓ Reduce political interference in transport operations.
- ✓ Introduce digital route permit management systems.
- ✓ Regularly update and revise bus routes based on demand.
- ✓ Improve monitoring by BRTA and traffic police.
- ✓ Eliminate overlapping and duplicate routes.
- ✓ Ensure strict penalties for route violations.
- ✓ Increase transparency in route allocation process.
- ✓ Develop integrated urban transport planning.
- ✓ Improve coordination among transport authorities.
- ✓ Introduce GPS tracking for buses.
- ✓ Control unauthorized and illegal vehicles.
- ✓ Improve passenger complaint mechanisms.
- ✓ Ensure proper training for drivers and operators.
- ✓ Promote public awareness about transport rules.
- ✓ Reduce traffic congestion through better route planning.
- ✓ Encourage public–private cooperation in transport sector.
- ✓ Conduct regular evaluation of route permit effectiveness.

References

Bari, M.M. (2023) 'Sustainable Transport Developments for Dhaka City', Intech Open. Available at: [IntechOpen](https://www.intechopen.com/chapters/87736?utm_source=chatgpt.com) (Accessed: 11 May 2026).

Niger, M. (2019) 'Rationalizing Public Transport System of Dhaka City: Proposal of Creating a Multimodal Hierarchical Transport Network to Reduce Traffic Congestion', Nakhara: Journal of Environmental Design and Planning, 16, pp. 1–14.

Onyemaobi, C. (2017) 'Improving Road Traffic Management in Dhaka City and Its Economic Benefits', NDC E-Journal.

Rahman, M.S.U. and Nahrin, K. (2012) 'Bus Services in Dhaka City – Users' Experiences and Opinions', Journal of Bangladesh Institute of Planners, 5(1), pp. 93–105.

Satu, S.A. and Shakil, H.I. (2017) 'Performance Evaluation of Articulated Bus as a Mode of Public Transport of Dhaka', Journal of Bangladesh Institute of Planners.

Shoma, A.N. and Chakma, M. (2007) 'Effectiveness of City Bus Stops in Dhaka Metropolitan', Khulna University Studies, 8(1), pp. 63–70.

Talukder, M.S. et al. (2020) 'Changing Institutional Landscape and Transportation Development in Dhaka, Bangladesh', ResearchGate Working Paper. Available at: [ResearchGate] (Accessed: 11 May 2026).

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Seal

Programme & Studies Division

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Mridha Md Mozahidul Islam

Roll No: 120

Seminar Paper

On

A Case Study Benefits of Digital Mouza Map

Submitted by

Mridha Md Mozahidul Islam
Roll No: 120

157th Advanced Course on Administration and Development
Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

A Case Study Benefits of Digital Mouza Map

Abstract

Land administration in Bangladesh has long faced challenges such as inaccurate records, land disputes, and inefficient manual documentation systems. The introduction of Digital Mouza Maps has emerged as a significant innovation aimed at improving land record management and ensuring transparency in land-related services. This study explored the benefits of Digital Mouza Maps in enhancing land administration efficiency, reducing disputes, and improving overall governance in the land sector. The study adopted a mixed-method case study design to obtain a comprehensive understanding of the subject. Both qualitative and quantitative approaches were used. Data were collected from primary and secondary sources. Primary data were gathered through structured questionnaires, key informant interviews, and field observations, while secondary data were obtained from books, journal articles, government reports, policy documents, and relevant online resources. A sample of approximately 30–50 respondents, including landowners, surveyors, land office officials, and local residents, was selected using purposive and simple random sampling techniques. The collected data were analyzed using descriptive statistical tools such as percentages, tables, charts, and graphs, while qualitative data were interpreted thematically to identify key patterns and findings. The findings indicated that Digital Mouza Maps significantly improved land record accuracy and reduced inconsistencies in documentation. They also contributed to minimizing land disputes by ensuring greater transparency and accessibility of land information. Furthermore, the system enhanced the efficiency of land administration services, although challenges such as limited technical capacity, infrastructure gaps, and user awareness were identified. Overall, the study concluded that Digital Mouza Maps play a vital role in modernizing land management systems in Bangladesh. However, effective implementation requires improved training, stronger institutional support, and increased public awareness to maximize their benefits.

Keywords: Digital Mouza Map, Land Administration, Land Dispute Reduction, Digital Governance, Bangladesh.

Introduction:

Bangladesh is a densely populated country with limited land resources, where land-related disputes and administrative inefficiencies are common challenges. Traditionally, land management has relied on paper-based mouza maps and manual record-keeping systems, which are often slow, outdated, and vulnerable to errors, manipulation, and corruption. These limitations frequently lead to land disputes, delays in land registration, and difficulties in verifying ownership. To address these challenges, the government of Bangladesh has initiated the digitalization of land administration, including the development of digital mouza maps. This system integrates geographic information systems (GIS) and digital databases to provide accurate, updated, and easily accessible land information. The digital mouza map enables faster land verification, reduces duplication of records, and improves transparency in land transactions and dispute resolution.

The novelty of this case study lies in examining the practical benefits of digital mouza maps in improving land governance efficiency in Bangladesh. While existing studies mainly focus on general digital land management, this study specifically highlights how digital mouza maps enhance accuracy, reduce corruption risks, and simplify land-related services for citizens. It also identifies implementation challenges such as technical capacity, data accuracy, and institutional coordination. Overall, this study contributes to understanding how digital mouza maps can transform traditional land administration systems and support more transparent, efficient, and dispute-free land management in developing countries like Bangladesh.

1.1 Background of the Study:

Maps play a vital role in urban planning, land administration, environmental management, education, and geographic information systems. In Bangladesh, traditional hand-drawn cadastral maps, commonly known as mouza maps, have long been used to record land boundaries, ownership details, plot numbers, and land classification information. Each mouza represents a specific land division consisting of multiple plots, where every plot is assigned a unique identification number. These maps provide essential details such as boundary lines, area measurements, directions, and spatial relationships, making them a key instrument for land administration and resource management. However, the manual nature of mouza maps has created several challenges, including outdated records, difficulty in updating information, limited accessibility, and risks of errors in land documentation. These issues often lead to land disputes and inefficiencies in administrative processes. To address these limitations, the government has introduced digital mouza maps using modern technologies such as Geographic Information Systems (GIS). Digital mouza maps offer more accurate, updated, and easily accessible land information compared to traditional maps. They improve transparency in land records, support faster decision-making, and reduce disputes related to land ownership and boundaries.

1.2 Problem Statement:

In Bangladesh, land administration still largely depends on traditional hand-drawn mouza maps, which are often outdated, inaccurate, and difficult to maintain. These limitations create significant problems in land management, including disputes over ownership, boundary conflicts, delays in land registration, and inefficiencies in administrative processes. Although the government has initiated the digitalization of mouza maps, the effectiveness and practical benefits of this system are not yet fully understood or widely evaluated. There is also limited evidence on how digital mouza maps improve transparency, accuracy, and accessibility in land records. Therefore, this study aims to examine the benefits of digital mouza maps and assess whether they effectively address the shortcomings of traditional mapping systems in improving land administration and reducing land-related disputes.

1.3 Objectives of the study:

i. To assess the benefits of digital mouza maps in improving land record accuracy and management in Bangladesh;
ii. To examine how digital mouza maps help reduce land disputes and improve transparency in land administration; and
iii. To identify the challenges and effectiveness of implementing digital mouza map systems in local land management practices.

1.4 Research Question

i. How do digital mouza maps improve land record accuracy and management in Bangladesh?
ii. In what ways do digital mouza maps help reduce land disputes and enhance transparency in land administration?
iii. What are the key challenges in implementing digital mouza map systems at the local level?

1.5 Justification of the Study:

The study on the benefits of digital mouza maps in Bangladesh is highly important due to the persistent challenges in traditional land administration systems. Hand-drawn mouza maps are often outdated, inaccurate, and difficult to update, leading to frequent land disputes, boundary conflicts, and delays in land-related services. Although digitalization initiatives have been introduced, their actual effectiveness and practical benefits are not yet fully evaluated. This study is justified as it aims to critically examine how digital mouza maps improve accuracy, transparency, and efficiency in land management. It will also explore whether these digital systems truly reduce disputes and enhance service delivery. The findings will provide valuable insights for policymakers, land administration authorities, and development planners to strengthen digital land governance and ensure more reliable and transparent land management systems.

2.0 Literature Review:

The digitization of land management systems has become an important component of e-governance and sustainable land administration in Bangladesh. Among various initiatives, the development of Digital Mouza Maps has gained considerable attention due to its potential to modernize land records, improve transparency, reduce land disputes, and enhance public service delivery. A Mouza map is a cadastral map that identifies land plots, boundaries, ownership patterns, and land classifications within a specific area. Traditionally, these maps were maintained manually on paper, resulting in inefficiency, corruption, and difficulties in land administration. The introduction of digital Mouza maps aims to address these challenges through the use of Geographic Information Systems (GIS), digital databases, and web-based technologies.

Several studies have highlighted the significance of digital land management in Bangladesh. Azad (2016) argued that the conventional land administration system in Bangladesh suffered from outdated records, weak coordination, and lengthy bureaucratic procedures. The study emphasized that digitization of land records and Mouza maps could improve efficiency, accountability, and accessibility of land-related information. According to the author, digital systems reduce human intervention and minimize opportunities for corruption and document manipulation.

Research by Talukder and Sakib (2014) further demonstrated that digital land management systems can simplify land registration and mutation processes. Their study proposed an integrated digital framework for land administration in Bangladesh using automated databases and online access systems. The researchers found that digital Mouza maps could reduce administrative delays, lower operational costs, and improve the accuracy of land information. The study also noted that digitization supports better coordination among land offices, survey departments, and local administration.

Another important contribution comes from Choudhury et al. (2011), who developed a web-based land management model for Bangladesh. Their study identified corruption, record forgery, and lack of transparency as major weaknesses of the traditional system. The proposed digital system integrated Mouza maps with ownership databases, enabling citizens to access land information online. The study concluded that digital Mouza maps could increase public trust in land administration and reduce disputes over land ownership and boundaries.

Technological advancements in digital mapping have also enhanced the practical utility of Mouza maps. Akter et al. (2020) conducted a quantitative analysis of Mouza map images using image processing techniques and Canny edge detection. Their research demonstrated that automated digital systems could estimate land areas with approximately 89.8% accuracy compared to manual field measurements. The study suggested that digital Mouza maps could significantly reduce the time, labor, and financial costs associated with land measurement and verification. This innovation can support faster service delivery for landowners and administrators.

Studies on Environmental Land Information Systems (ELIS) have also emphasized the broader developmental benefits of digital cadastral mapping. Haque and Karim (2015) explained that GIS-based land information systems allow efficient storage, retrieval, and analysis of land records and environmental data. Their research highlighted that digital Mouza maps facilitate urban planning, land zoning, agricultural management, and infrastructure development. The integration of satellite imagery, GPS technology, and digital databases enables accurate mapping and long-term preservation of land records.

Government initiatives in Bangladesh further demonstrate the growing importance of digital Mouza maps. The national land digitization project aims to geo-reference Mouza maps and creates digital land zoning systems for all districts. According to official project information, the digitized maps will support future land-use planning, conservation of scarce land resources, and sector-wise land management such as agricultural, industrial, and residential zoning. The project is also expected to improve citizens' access to land records and reduce disputes caused by inaccurate or missing documentation.

Recent studies on vectorization and automation of cadastral maps indicate that artificial intelligence and machine learning can further improve the efficiency of digital Mouza map systems. Dhrubo et al. (2024) proposed a semi-automated approach for vectorizing hand-drawn Mouza maps using convolutional neural networks and GIS technologies. Their findings showed that digital processing methods can reduce manual workload and accelerate the conversion of paper maps into accurate digital formats.

Community discussions and practical experiences also reveal public interest in digital land documentation. Online discussions in Bangladesh indicate that citizens view digital mapping as an effective way to preserve land information, monitor ownership, and reduce the risk of illegal occupation. However, many users also emphasize that effective land governance requires both digital documentation and strong legal enforcement.

The literature suggests that Digital Mouza Maps provide significant benefits in terms of transparency, efficiency, accuracy, dispute reduction, and land resource management. Nevertheless, challenges such as technological limitations, institutional capacity, data security, and public awareness remain important concerns. Most researchers recommend integrated digital governance, GIS-based monitoring, and continuous institutional reform to maximize the effectiveness of digital land administration systems in Bangladesh.

3.0 Methodology:

Research Design

The study adopted a mixed-method case study design to explore the benefits of Digital Mouza Maps in improving land administration and management systems. Both qualitative and quantitative approaches were used to collect detailed and reliable information from the selected study area.

Sources of Data

Both primary and secondary data sources were utilized in this study. Primary data were collected directly from respondents through surveys, interviews, and field observations. Secondary data were gathered from books, journal articles, government publications, policy documents, reports, and online resources related to digital land management in Bangladesh.

Sampling Technique and Sample Size

The study used purposive and simple random sampling techniques to select respondents. The respondents included landowners, surveyors, land office officials, and local residents who had experience with Digital Mouza Maps. A sample size of approximately 30–50 respondents was considered for data collection.

Data Collection Methods

Data were collected through:

- Structured questionnaires
- Key informant interviews
- Field observation
- Review of relevant documents and records

These methods helped gather information on the practical benefits, challenges, and effectiveness of Digital Mouza Maps.

Data Analysis

Collected data were analyzed using descriptive statistical tools such as percentages, tables, charts, and graphs. Qualitative information from interviews and observations was analyzed through thematic interpretation to identify major findings and patterns.

4.0 Data Analysis and Findings:

4.1 Data Collection & Procedure of KII

The first objective of the study was to assess the benefits of digital Mouza mapping in improving the accuracy and management of land records in Bangladesh. The second objective was to examine how digital Mouza mapping helps reduce land disputes and increase transparency in land administration, and the third objective was to identify the barriers and effectiveness of implementing digital Mouza mapping in local land management systems. Data were collected from both primary and secondary sources, prioritizing the objectives. Primary data were collected through interviews (KIIs) with landowners, surveyors, land office officials, and local residents with experience in digital Mouza mapping.

The main objective of the interviews was to collect information from landowners, surveyors, land office officials, and local residents with experience in digital Mouza mapping. They assessed the benefits of digital Mouza mapping in improving the accuracy and management of land records in Bangladesh. They expressed their views on how digital Mouza mapping can reduce land disputes and improve transparency in land administration and the barriers and effectiveness of implementing digital Mouza mapping in local land management systems and provided recommendations to overcome the barriers. In order to collect appropriate information, interviews were conducted through a checklist based on the objectives and rationale of the study and verbally. The interviews were conducted using both open and closed questions. The checklist had a few questions that were simple, comprehensive, and easy to understand.

Landowners, surveyors, land office officials, and local residents with experience in digital Mouza mapping were interviewed. Before interviewing the respondents, the researcher took all possible measures to prepare a report so that the respondents did not hesitate to give correct answers. The questions were properly explained to the respondents. While conducting the main interview, the researcher always tried to avoid multiple questions and judgmental answers.

4.2 Data Analysis:

The researcher personally collected the data using a checklist consisting of a number of structured questions administered to the respondents.

The data analysis has been shown in the table below: -

<u>Experience with Land Administration Systems</u>

4.2.1 Digital Mouza Map Usage and Interaction with Land Services

Table-1: Digital Mouza Map Usage and Interaction with Land Services

Indicators	Response Category	Percentage (%)
Use of traditional (paper-based) mouza maps	Yes	88%
	No	12%
Use of digital mouza maps / digital land services	Yes	62%
	No	38%
Frequency of interaction with land administration services	Very frequently (weekly/monthly)	22%
	Frequently (a few times a year)	40%
	Occasionally (once a year or less)	28%
	Rarely/Never	10%

Source: Questionnaire survey, 2026

The analysis shows that the majority of respondents (88%) have experience using traditional paper-based mouza maps for land-related tasks. This indicates that conventional land record systems are still widely used and remain an important part of land administration practices in the study area. In contrast, 62% of respondents reported using digital mouza maps or digital land administration services, while 38% had not yet adopted digital systems. This suggests that although digital transformation in land management is progressing, a significant proportion of users are still dependent on traditional methods, highlighting a transitional phase between manual and digital systems. Regarding interaction with land administration services, 22% of respondents engage very frequently (weekly or monthly), and 40% interact frequently a few times a year. Additionally, 28% reported occasional interaction, while only 10% rarely or never access such services. This demonstrates that most respondents regularly depend on land-related services for activities such as registration, mutation, and boundary verification. Overall, the findings suggest a gradual shift towards digital land management systems in Bangladesh, although traditional practices remain dominant. Increasing digital awareness, improving accessibility, and strengthening infrastructure could further enhance the adoption of Digital Mouza Maps and improve the efficiency of land administration services.

Benefits of Digital Mouza Maps

4.2.2 Perceived Improvement in Land Record Accuracy Due to Digital Mouza Maps

Table-2: Perceived improvement in the accuracy of land records

Response	Percentage (%)
Significantly improved	42%
Moderately improved	38%
Slightly improved	16%
No change	4%
Total	**100%**

Source: Questionnaire survey, 2026

The findings indicate that Digital Mouza Maps have positively contributed to improving land record accuracy in Bangladesh. A majority of respondents (80%) reported that land record accuracy has either *significantly improved* (42%) or *moderately improved* (38%) due to the introduction of digital systems. This suggests that digitization has helped reduce errors, duplication, and inconsistencies commonly associated with traditional paper-based land records. A smaller proportion of respondents (16%) felt that improvements were *slight*, indicating that while some progress has been made, challenges such as incomplete digitization, limited technical capacity, or system inefficiencies may still exist in certain areas. Only 4% of respondents reported *no change*, suggesting that very few users perceive digital mouza maps as ineffective in improving accuracy. This reflects a generally positive acceptance of digital land management systems. Overall, the results demonstrate that digital mouza maps play a significant role in enhancing the accuracy and reliability of land records in Bangladesh. Continued improvements in digital infrastructure, staff training, and system integration are likely to further strengthen land administration and reduce record-related errors in the future.

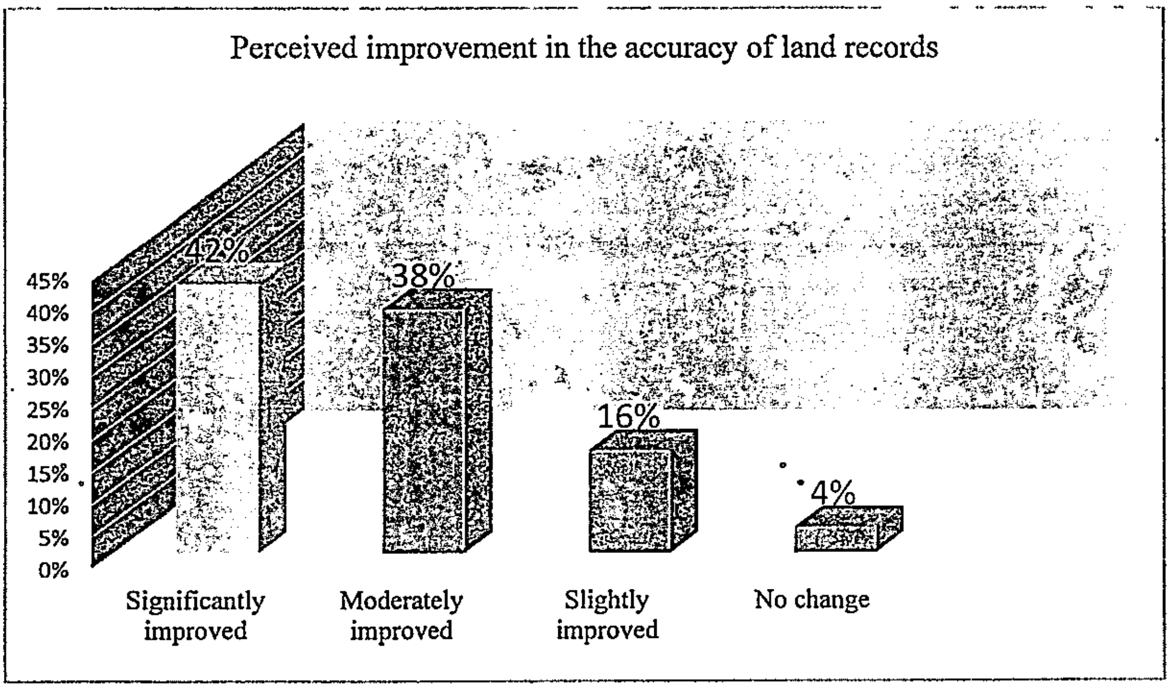


Figure-1: Perceived Improvement in Land Record Accuracy Due to Digital Mouza Maps

4.2.3 Most Significant Benefits of Digital Mouza Maps

Table-3: Important benefits

Benefits	**Percentage (%)**
Faster land verification	20%
Reduced errors in records	18%
Improved transparency	16%
Easier access to land information	14%
Reduced risk of corruption/manipulation	12%
Simplified land transactions	10%
Better dispute resolution	10%
Total	**100%**

Source: Questionnaire survey, 2026

The analysis shows that digital Mouza maps provide multiple significant benefits in land administration. The most frequently reported benefit was faster land verification (20%), indicating that digitization has greatly reduced the time required for checking and confirming land records.

Reduced errors in land records (18%) were another important benefit, suggesting that digital systems help minimize manual mistakes, duplication, and inconsistencies commonly found in traditional paper-based records. Improved transparency (16%) was also highlighted, showing that digital access to land information has made the system more open and accountable. Additionally, respondents reported easier access to land information (14%), which has improved convenience for landowners, surveyors, and officials. A notable proportion also identified reduced risk of corruption or manipulation (12%), indicating that digital systems contribute to more secure and trustworthy land management. Simplified land transactions (10%) and better dispute resolution (10%) were also mentioned, reflecting that digital Mouza maps support smoother land-related processes and help reduce conflicts over land ownership and boundaries. Overall, the findings demonstrate that digital Mouza maps offer comprehensive benefits that improve efficiency, transparency, and reliability in land administration in Bangladesh.

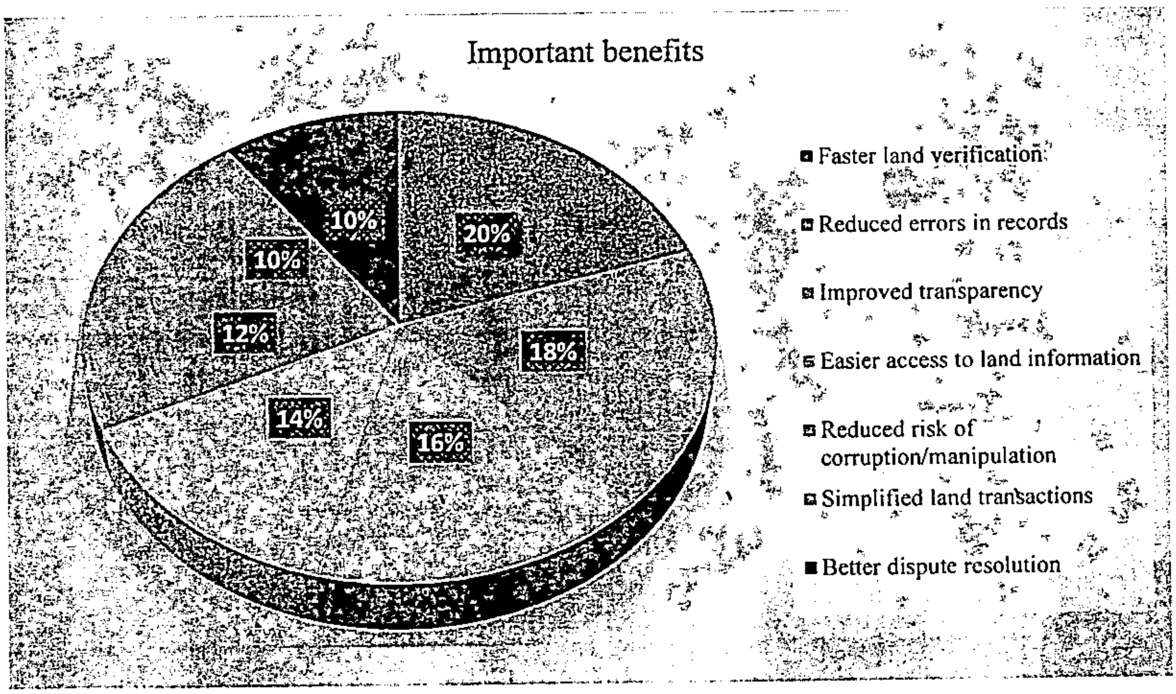


Figure-2: Most Significant Benefits of Digital Mouza Maps

Challenges in Implementation

4.2.4 Key Challenges in Implementing Digital Mouza Map Systems

Table-4: Main obstacles to implementation

Challenges	**Percentage (%)**
Lack of technical capacity/skilled personnel	20%
Issues with data accuracy/completeness	18%
Limited user awareness/training	16%
Insufficient institutional coordination	14%
Resistance to change from traditional methods	12%
Internet connectivity issues	10%
High implementation costs	6%
Data security concerns	4%
Total	**100%**

Source: Questionnaire survey, 2026

The findings indicate that several interrelated challenges affect the effective implementation of digital Mouza map systems at the local level. The most significant challenge is the lack of technical capacity and skilled personnel (20%), suggesting that many users and officials still lack adequate training to operate and manage digital land systems efficiently. Issues with data accuracy and completeness (18%) also remain a major concern, indicating that some digital records may still contain errors or incomplete information during data conversion from traditional systems. Limited user awareness and training (16%) further highlight the need for capacity-building initiatives to ensure effective utilization of digital systems. Insufficient institutional coordination (14%) and resistance to change from traditional methods (12%) reflect organizational and behavioral barriers that slow down the adoption of digital land management practices. Additionally, internet connectivity issues (10%) affect smooth access to digital services, particularly in rural areas. Although less prominent, high implementation costs (6%) and data security concerns (4%) were also identified as constraints that may hinder full-scale adoption. The findings suggest that while digital Mouza maps offer significant benefits, addressing technical, institutional, and infrastructural challenges is essential to ensure their effective and sustainable implementation at the local level in Bangladesh.

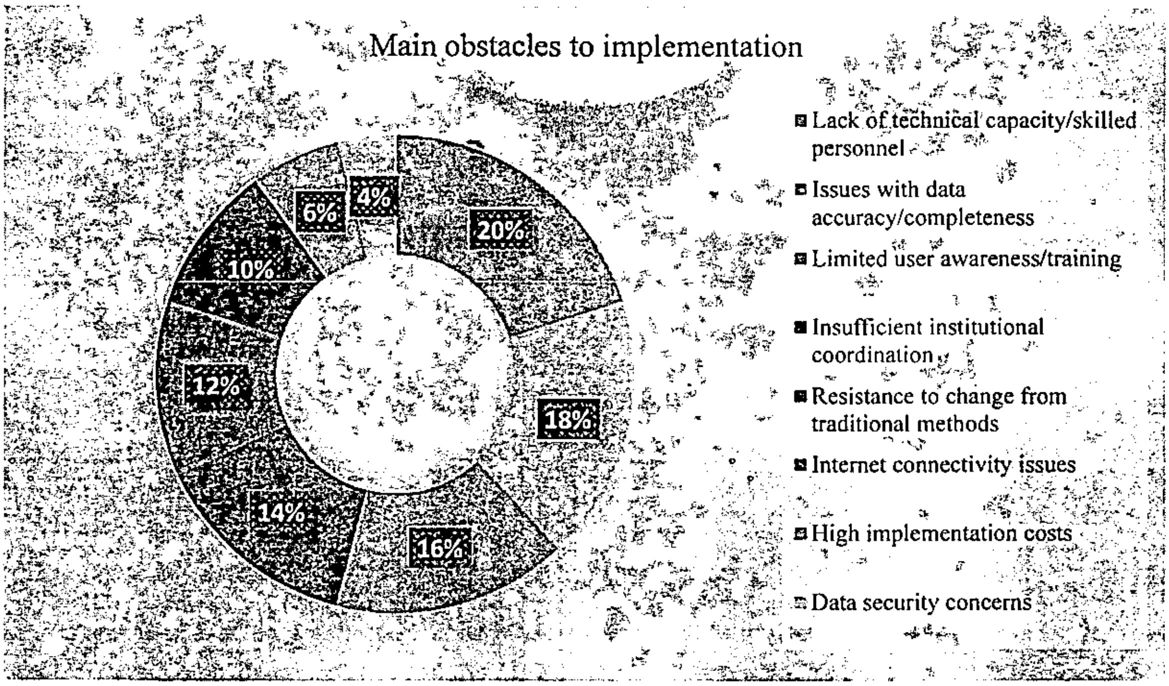


Figure-3: Key Challenges in Implementing Digital Mouza Map Systems

4.2.5 Effectiveness of Addressing Challenges in Digital Mouza Map Implementation

Table-5: Effectiveness in addressing challenges

Response	**Percentage (%)**
Very effectively	12%
Effectively	28%
Moderately effectively	40%
Not effectively	16%
Not addressed at all	4%
Total	**100%**

Source: Questionnaire survey, 2026

The findings indicate that efforts to address challenges in implementing digital Mouza map systems are perceived as moderately effective overall. The largest proportion of respondents (40%) stated that these challenges are being addressed *moderately effectively*, suggesting that while some progress has been made, there is still significant room for improvement in implementation and service delivery. A combined 40% of respondents viewed the situation positively, with 12% reporting that challenges are being addressed *very effectively* and 28% stating *effectively*. This indicates that certain improvements in training, system development, and administrative support have already contributed to better functioning of digital land management systems in some areas. However, 16% of respondents felt that challenges are being addressed *not effectively*, while 4% believed they are *not addressed at all*. This reflects ongoing issues such as limited technical capacity, infrastructure gaps, and insufficient coordination among responsible institutions. The results suggest a mixed situation where progress is visible but not yet sufficient. Strengthening institutional coordination, improving technical training, and expanding infrastructure support are essential to ensure more effective resolution of challenges and to enhance the successful implementation of digital Mouza map systems in Bangladesh.

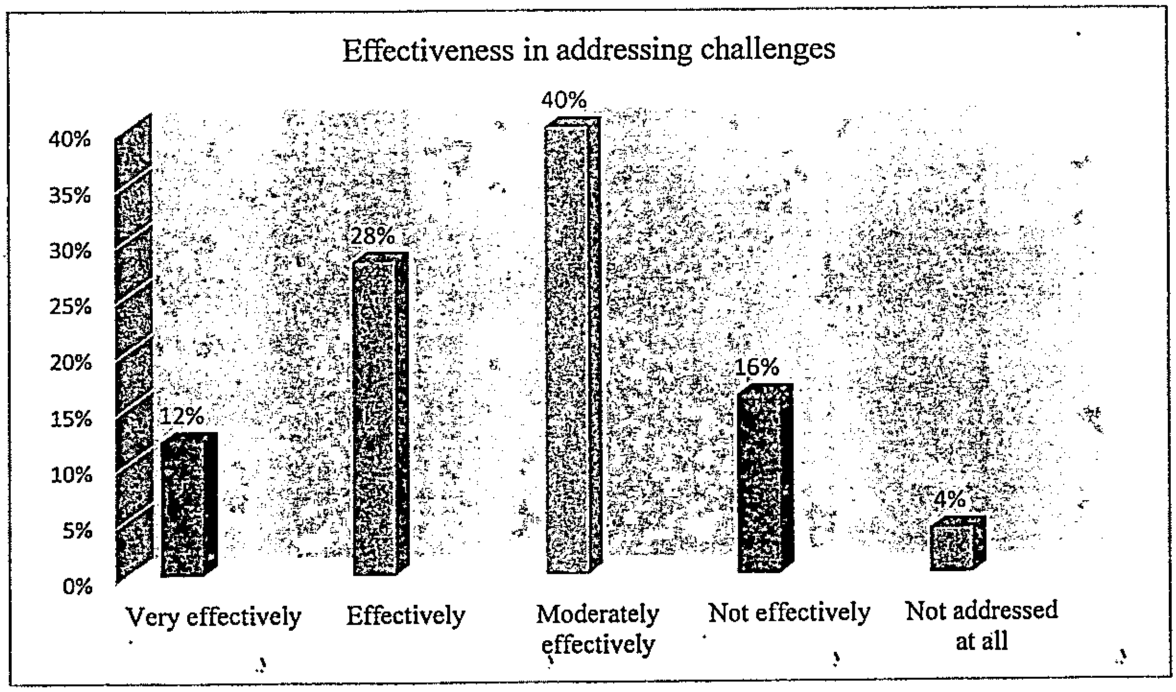


Figure-4: Effectiveness of Addressing Challenges in Digital Mouza Map Implementation

Impact on Land Disputes and Transparency

4.2.6 Digital Mouza Maps: Impact on Land Dispute Reduction and Transparency

Table-6: Extent of reducing land disputes

Indicators	Response Category	Percentage (%)
Extent of reducing land disputes	Very significantly	36%
	Significantly	34%
	Moderately	20%
	Slightly	8%
	Not at all	2%
Total		**100%**

Source: Questionnaire survey, 2026

The analysis shows that digital Mouza maps play a strong role in reducing land-related disputes in Bangladesh. A majority of respondents (70%) reported that disputes have been reduced either *very significantly* (36%) or *significantly* (34%) due to the use of digital systems. This indicates that digitization has improved clarity in land boundaries, reduced overlapping claims, and minimized conflicts among landowners. Another 20% of respondents believed that the reduction in disputes was *moderate*, suggesting that while improvements are visible, some limitations still exist in full implementation or data accuracy. A small proportion (8%) reported only *slight* improvement, and just 2% stated that there was *no impact*, indicating that very few users did not experience any benefit from the system.

Regarding transparency in land administration, respondents explained that digital Mouza maps enhance transparency by making land records more accessible, reducing manual manipulation, and ensuring clearer documentation of ownership and boundaries. Several respondents also noted that digital systems reduce corruption risks and improve trust between citizens and land offices. In addition, respondents provided examples where digital Mouza maps helped resolve boundary conflicts, clarified ownership disputes, and supported faster settlement of land-related issues through accurate digital records. These real-life experiences further confirm the positive impact of digital Mouza maps in improving transparency and dispute resolution. Overall, the findings demonstrate that digital Mouza maps significantly contribute to reducing land disputes and increasing transparency in land administration in Bangladesh.

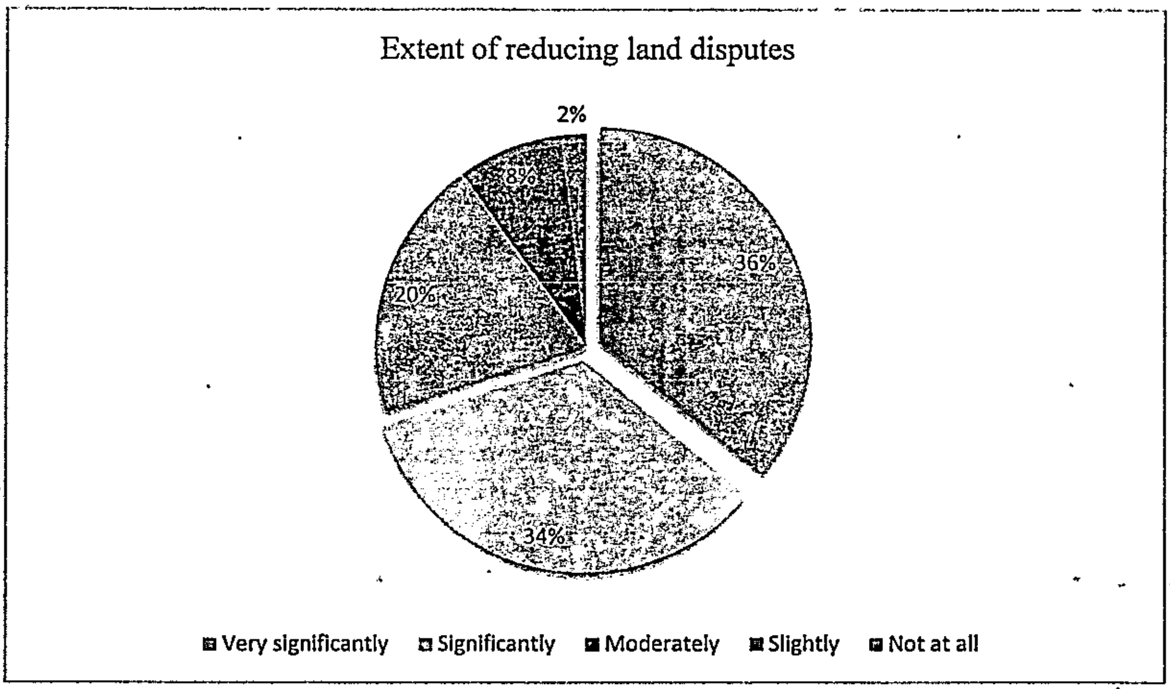


Figure-5: Extent of reducing land disputes

Suggestions and Recommendations

4.2.7 Suggested Measures to Improve the Effectiveness and Adoption of Digital Mouza Maps in Bangladesh

Table-7: Recommended actions

Suggested Measure	Description	Expected Benefit
Public Awareness Campaigns	Conduct awareness programs through media, local government offices, and community meetings.	Increases public understanding and usage of digital mouza maps.
Capacity Building and Training	Provide training for land officials, surveyors, and users on digital map applications.	Enhances technical skills and efficient utilization of the system.
Regular Data Updating	Update land records and map information periodically.	Ensures accuracy and reliability of land information.
Integration with Land Management Systems	Link digital mouza maps with land registration, mutation, and tax systems.	Creates a comprehensive and efficient land administration system.

Suggested Measures	Description	Expected Benefit
Improved ICT Infrastructure	Strengthen internet connectivity, servers, and digital facilities, especially in rural areas.	Facilitates smooth access to digital map services.
User-Friendly Digital Platforms	Develop simple web and mobile applications for accessing mouza maps.	Encourages wider adoption among citizens.
Strengthening Data Security	Implement strong cybersecurity measures and data backup systems.	Protects land information from unauthorized access and data loss.
Establishment of Help Desks	Create support centers at local land offices to assist users.	Improves accessibility and resolves user difficulties.
Reduction of Service Costs	Keep digital map services affordable for all users.	Promotes greater public participation and usage.
Stakeholder Collaboration	Enhance coordination among government agencies, local authorities, and private sectors.	Improves implementation and sustainability of digital mapping initiatives.
Legal and Policy Support	Develop clear policies and regulations for digital land management.	Strengthens governance and public trust in the system.
Mobile-Based Access Services	Introduce mobile-friendly services for viewing and downloading maps.	Increases accessibility, particularly in remote areas.

Source: Questionnaire survey, 2026

Table-8: Overall Analysis

Aspect	Analysis
Key Challenge	Limited awareness, technical capacity, and infrastructure constraints hinder effective adoption.
Most Important Recommendation	Regular updating of land records and integration with other land administration services.

Aspect	Analysis
Technology Requirement	Reliable ICT infrastructure and secure digital platforms are essential for successful implementation.
User Perspective	Easy access, affordable services, and technical support encourage greater acceptance among citizens.
Expected Outcome	Enhanced transparency, reduced land disputes, faster service delivery, and more efficient land management across Bangladesh.

Source: Questionnaire survey, 2026

4.2.8 Required Support for Better Implementation of Digital Land Administration Systems

Table-9 Support needed for implementation

Type of Support	**Percentage (%)**
Training for officials and users	30%
Improved funding for digital infrastructure	22%
Strong policy reforms and legal framework	18%
Technical support and IT expertise	12%
Public awareness campaigns	10%
Better coordination among land agencies	8%
Total	**100%**

Source: Questionnaire survey, 2026

The findings indicate that effective implementation of digital land administration systems in Bangladesh requires multiple forms of support. The most important requirement identified by respondents was training for officials and users (30%), highlighting the need to enhance digital skills and technical knowledge for efficient system operation and service delivery. Improved funding for digital infrastructure (22%) was also considered essential, as adequate financial resources are necessary to develop, maintain, and upgrade digital systems, especially in rural and semi-urban areas. Strong policy reforms and a proper legal framework (18%) were also emphasized, indicating the need for updated regulations to support digital land governance and ensure accountability. Additionally, respondents highlighted the importance of technical support and IT expertise (12%) to ensure smooth system operation and problem-solving. Public awareness campaigns (10%) were seen as necessary to increase user acceptance and understanding of digital land services. Better coordination among land-related agencies (8%) was also identified as a key factor to reduce administrative delays and improve service efficiency. Overall, the results suggest that a combination of capacity building, financial investment, policy reform, and institutional coordination is essential for the successful and sustainable implementation of digital Mouza map systems in Bangladesh.

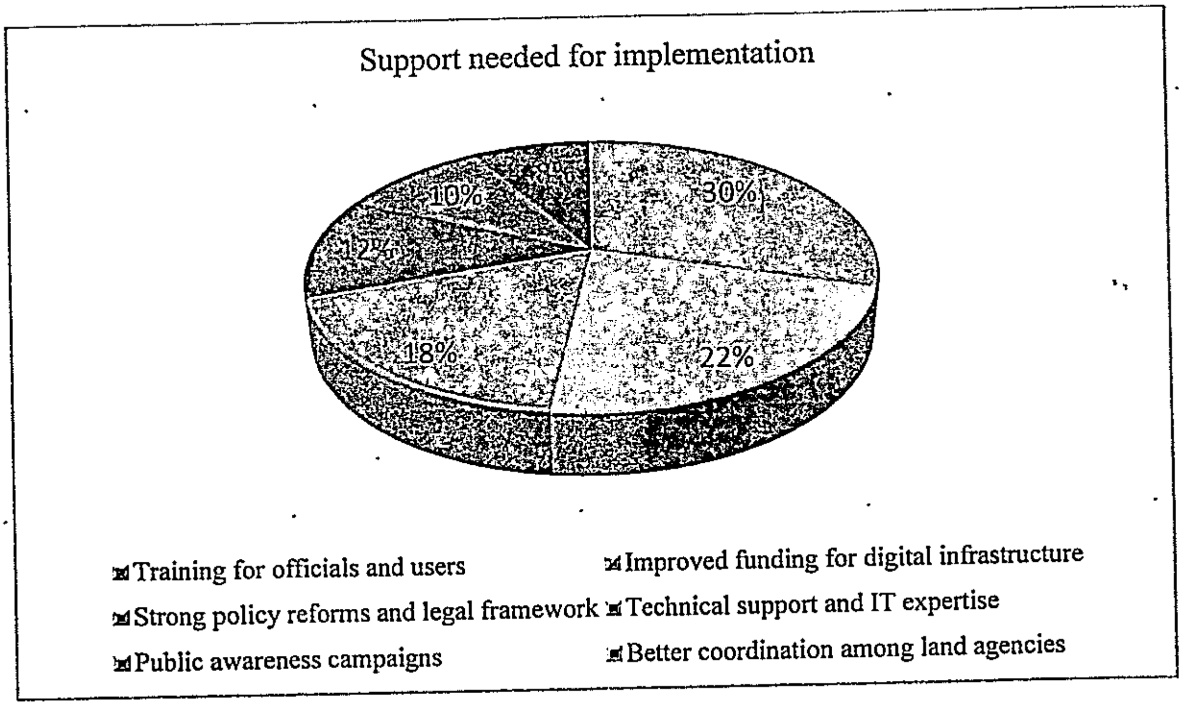


Figure-6: Required Support for Better Implementation of Digital Land Administration Systems

4.3 Qualitative data analysis

The qualitative findings, obtained through Key Informant Interviews (KIIs) and field observations, revealed that Digital Mouza Maps have significantly improved land administration practices in the study area. Most respondents, including landowners, surveyors, land office officials, and local residents, reported that digital mapping has enhanced the accuracy and accessibility of land records. They noted that digital records are easier to retrieve, verify, and update compared to traditional paper-based maps, reducing the likelihood of errors and inconsistencies. Respondents also emphasized that Digital Mouza Maps have contributed to reducing land disputes by providing clearer boundary information and more reliable ownership records. Improved transparency was another frequently mentioned benefit, as digital systems limit opportunities for record manipulation and increase public access to land-related information.

Several challenges were identified, including inadequate technical skills, limited user awareness, internet connectivity problems, and incomplete digital records in some areas. Participants suggested that regular training, improved infrastructure, stronger institutional coordination, and public awareness programs are necessary to maximize the effectiveness and wider adoption of Digital Mouza Maps in Bangladesh.

5.0 Conclusion and Recommendations:

5.1 Conclusion:

The study concludes that Digital Mouza Maps have brought significant improvements to land administration and management in Bangladesh. The findings indicate that digital mapping has enhanced the accuracy, accessibility, and reliability of land records, making land-related services more efficient and user-friendly. Respondents reported that Digital Mouza Maps have contributed to reducing land disputes by providing clear boundary information and accurate ownership records. The system has also increased transparency in land administration by minimizing opportunities for record manipulation and improving public access to land information. Despite these benefits, the study identified several challenges, including limited technical capacity, inadequate user awareness, infrastructure constraints, and issues related to data completeness. These challenges can affect the full utilization and effectiveness of digital land management systems at the local level.

Digital Mouza Maps represent an important step toward modernizing land administration in Bangladesh. Their successful implementation can support efficient land governance, reduce disputes, and promote transparency, provided that adequate technical, institutional, and policy support is ensured.

5.2 Recommendations:

- ✓ Expand digital Mouza map coverage across all regions of Bangladesh.
- ✓ Provide regular training for land office officials.
- ✓ Increase public awareness about digital land services.
- ✓ Improve internet connectivity in rural areas.
- ✓ Ensure regular updating of digital land records.
- ✓ Strengthen data accuracy and verification mechanisms.
- ✓ Enhance coordination among land administration agencies.

- ✓ Develop user-friendly digital platforms for land services.
- ✓ Allocate sufficient funding for digital land management projects.
- ✓ Establish technical support centers at the local level.
- ✓ Introduce digital literacy programs for landowners and users.
- ✓ Strengthen cybersecurity and data protection measures.
- ✓ Reduce bureaucratic procedures in land-related services.
- ✓ Promote transparency through open access to land information.
- ✓ Conduct periodic monitoring and evaluation of digital systems.
- ✓ Integrate Digital Mouza Maps with other land administration databases.
- ✓ Encourage stakeholder participation in system development and implementation.
- ✓ Formulate supportive policies and legal frameworks for sustainable digital land governance.

References

Akter, Y.A., Rahman, M.A. and Rahman, M.O. (2020) 'Quantitative analysis of Mouza map image to estimate land area using zooming and Canny edge detection', TELKOMNIKA Telecommunication Computing Electronics and Control, 18(6), pp. 3293–3301.

Azad, A.B.M. (2016) 'Digitization of Land Management System – Bangladesh Perspective', NDC E-Journal, pp. 1–12.

Choudhury, E., Ridwan, M., Awal, M. and Hosain, S. (2011) 'A Web-based Land Management System for Bangladesh', Proceedings of ICCIT, pp. 1–6.

Dhrubo, M.S., Akter, S., Shuaib, A.B. and Islam, A.B.M.A. (2024) 'A Paradigm Shift in Mouza Map Vectorization: A Human-Machine Collaboration Approach', arXiv preprint arXiv:2410.15961.

Haque, M.A. and Karim, R. (2015) 'An Overview of the Environmental Land Information System (ELIS)', International Journal of Research-Granthaalayah, 3(11), pp. 36–42.

Khan, S., Toaha, M. and Awal, M.A. (2009) 'Automated Digital Archive for Land Registration and Records', The International Technology Management Review, 2(1), pp. 50–65.

Talukder, S. and Sakib, M.I.I. (2014) 'Digital Land Management System: A New Initiative for Bangladesh', Proceedings of ICEEICT 2014, pp. 1–6.

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Evaluation Department

157th Advanced Course on Administration and Development

Seal

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Evaluation Department

157th Advanced Course on Administration and Development

Seal

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Instruction to be followed

(Please read carefully)

1. Please write your Name, Roll No etc. at the specified space.
2. Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.
1. Put tick (✓) marks on Evaluation method and Institute's Name.

Name: Mohammad Shahadat Khandaker

Roll No: 121

Seminar Paper

On

Livestock based Agrobusiness in Bangladesh: Problems and Prospects

Submitted by

Mohammad Shahadat Khandaker
Roll No: 121

157th Advanced Course on Administration and Development
Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

Livestock based Agrobusiness in Bangladesh: Problems and Prospects

Abstract

Livestock-based agribusiness plays a vital role in the rural economy of Bangladesh by contributing to employment generation, income diversification, nutrition improvement, and poverty reduction. Despite its potential, the sector faces multiple challenges that hinder its sustainable growth. This study examines the problems and prospects of livestock-based agribusiness in Bangladesh, focusing on rural and peri-urban areas where livestock activities are more prominent. The study adopts a mixed-method research design, integrating both quantitative and qualitative approaches to provide a comprehensive understanding of the issue. Primary data were collected from livestock farmers, dairy and poultry entrepreneurs, traders, and relevant government and non-government officials using structured questionnaires, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs). Secondary data were obtained from published journals, government reports, Bangladesh Bureau of Statistics (BBS), livestock department publications, and previous research studies. A purposive sampling technique was used to select study areas and respondents based on their involvement in livestock agribusiness activities, while simple random sampling was applied for selecting survey participants. A total of 50 respondents were included, comprising 40 for quantitative surveys and 10 for qualitative data collection, including 5 KIIs and 5 FGD participants. The findings indicate that livestock-based agribusiness faces several constraints, including inadequate access to finance, disease outbreaks, high feed costs, limited veterinary services, poor market linkages, and lack of modern technology. However, significant prospects were also identified, such as employment generation, value addition opportunities, export potential, and rural economic development. The study concludes that with proper policy support, improved infrastructure, access to credit, and modern technological interventions, livestock agribusiness can significantly contribute to sustainable rural development and poverty alleviation in Bangladesh.

Keywords: Livestock Agribusiness, Rural Development, Poultry and Dairy Sector, Poverty Reduction, Bangladesh.

Introduction:

1.1 Background of the Study:

Livestock-based agribusiness has emerged as a promising sector for accelerating economic growth, ensuring food security, and reducing rural poverty in developing countries, particularly in Bangladesh (Rashid et al., 2023). As an integral part of the country's agricultural economy, the livestock sector contributes significantly to employment generation, rural livelihoods, women's empowerment, nutritional security, and national GDP growth (Rahman et al., 2020). In recent years, Bangladesh's livestock industry has experienced a gradual transformation from traditional subsistence farming to more commercial and market-oriented agribusiness systems. Commercial dairy, poultry, and cattle farms are increasingly adopting modern production technologies, digital farm management systems, improved breeding techniques, feed processing technologies, and integrated value-chain approaches (Mujeri et al., 2021). The expansion of online livestock markets, mobile veterinary services, and private-sector investment has further accelerated sectoral growth and market connectivity. Additionally, rising urbanization, increasing population, and growing consumer demand for safe and quality animal protein have created new opportunities for livestock-based agribusiness development in Bangladesh.

Compared with neighboring South Asian countries such as India, Pakistan, and Nepal, Bangladesh's livestock agribusiness sector demonstrates both significant achievements and persistent challenges. India possesses one of the largest livestock sectors in the world and has developed a highly successful dairy cooperative model through institutional initiatives and technological innovation. The country has benefited from extensive investment in veterinary services, breeding programs, and organized value chains. Pakistan has also made considerable progress in livestock commercialization through export-oriented policies and improved farm management practices, while Nepal has increasingly emphasized community-based livestock production systems and sustainable rural development initiatives. Compared to these countries, Bangladesh has made impressive gains in poultry and dairy production and achieved increasing levels of self-sufficiency in meat and egg production. However, infrastructural weaknesses, limited cold-chain facilities, inadequate access to advanced technologies, and insufficient institutional support continue to hinder sectoral competitiveness. This regional comparison highlights opportunities for Bangladesh to learn from neighboring countries regarding cooperative development, technology integration, policy implementation, and market diversification strategies.

Despite these positive developments, the livestock agribusiness sector still faces numerous structural and operational challenges that limit its full potential. Existing literature has highlighted several persistent problems, including limited access to modern technologies, inadequate financial support, poor transportation and cold-chain facilities, shortage of quality feed and vaccines, insufficient veterinary and extension services, and lack of skilled human resources (Sarker et al., 2021; Rahman et al., 2023). Furthermore, climate change impacts, frequent outbreaks of livestock diseases, fluctuating market prices, and dependency on imported feed ingredients continue to create uncertainty within the sector. Small and marginal farmers often struggle to access formal credit, training opportunities, and profitable market linkages, reducing their competitiveness in the rapidly changing agribusiness environment (Usha and Devakumar, 2018).

Although Bangladesh has achieved notable progress in meat, milk, and egg production over the last decade, the sector still requires improved policy support, technological innovation, sustainable investment, and institutional coordination to ensure long-term growth and resilience. Therefore, examining the problems and prospects of livestock-based agribusiness in Bangladesh is highly important for identifying effective strategies to strengthen productivity, improve rural incomes, enhance food and nutritional security, and contribute more effectively to sustainable economic development in the context of current global and domestic challenges.

1.2 Problem Statement:

The livestock-based agribusiness sector in Bangladesh has emerged as an important contributor to economic growth, employment generation, and food security. However, the sector continues to face several critical challenges that limit its productivity and sustainable development. Studies indicate that a significant proportion of smallholder farmers face difficulties accessing formal credit and financial services, restricting investment in modern technologies and farm expansion. Disease outbreaks in poultry and livestock farms cause considerable economic losses each year, while inadequate veterinary services and shortages of quality feed and vaccines further constrain productivity. Farmers and entrepreneurs also encounter poor transportation systems, weak market infrastructure, and limited training opportunities. Climate change impacts and price fluctuations increase production risks and vulnerability, particularly among marginal farmers. Addressing these challenges is essential not only for improving sectoral efficiency but also for strengthening rural governance, reducing poverty, ensuring food and nutritional security, increasing employment generation, and supporting sustainable national economic development in Bangladesh.

1.3 Objectives of the study:

Specific Objectives

i. To identify the major problems and constraints affecting livestock-based agribusiness in Bangladesh; and

ii. To assess the current prospects and growth opportunities of livestock-based agribusiness for economic development and food security.

1.4 Research Questions:

i. What are the major problems faced by livestock-based agribusiness entrepreneurs in Bangladesh?

ii. What are the economic and social contributions of livestock-based agribusiness in Bangladesh?

iii. What opportunities and prospects exist for the sustainable development of livestock-based agribusiness in Bangladesh?

1.5 Justification of the Study:

The livestock-based agribusiness sector plays a significant role in Bangladesh's economy by contributing to agricultural GDP, employment generation, food security, and rural development. Despite its growing importance, the sector faces numerous challenges, including inadequate technology, high feed costs, disease outbreaks, limited access to finance, poor marketing systems, and insufficient training facilities. At the same time, increasing demand for meat, milk, eggs, and other livestock products has created new opportunities for commercial expansion and entrepreneurship. However, comprehensive studies focusing on both the problems and prospects of livestock-based agribusiness in Bangladesh remain limited. Therefore, this study is important for identifying existing constraints, exploring future opportunities, and developing effective policy recommendations. The findings of this study will benefit various stakeholders, including livestock farmers, women entrepreneurs, agribusiness investors, researchers, and policymakers. Farmers and entrepreneurs may gain insights into improving productivity and market access, while women entrepreneurs can identify opportunities for economic empowerment and participation in livestock enterprises. Policymakers can use the findings to formulate evidence-based strategies for sustainable livestock development, improved rural livelihoods, and enhanced national economic growth.

2.0 Literature Review:

The livestock-based agribusiness sector is a crucial part of Bangladesh's agricultural landscape, contributing 1.60% to the national gross domestic product (GDP) and 14.31% to the agricultural GDP in the fiscal year 2016-17, with an average annual growth rate of 3.31% (Bhuiyan et al., 2017). This sector includes cattle, buffalo, goats and sheep, all of which have shown steady population growth over the past eight years (DLS, 2016). Although indigenous breeds are predominant, about 20% of cattle are crossbred with exotic varieties, reflecting ongoing improvements in livestock management (Bhuiyan et al., 2017). Smallholders, who typically manage 1-2 cattle, 2-4 goats or sheep, and some poultry, dominate the sector. Livestock is a vital asset for rural communities, providing nutrition, income, employment, and empowerment, especially for women. Notably, up to 70% of Bangladesh's livestock is owned by non-farm and smallholder households, underscoring the significance of small-scale farming (Khan et al., 2009; Bhuiyan et al., 2017).

Entrepreneurship plays a crucial role in fostering economic growth by creating jobs and reducing global unemployment rates (Hashmi, 2024; Sagar et al., 2023; Aggarwal and Malhotra, 2018; Dutta, 2018). In Bangladesh, the livestock-based agribusiness sector, particularly poultry farming, is a cornerstone of the agricultural economy, with women significantly contributing alongside their household duties (Begum et al., 2019; Patel, 2024; Ahmed et al., 2018, Akoijam, 2017). This sector, known for its rapid expansion and profitability, has transformed many small-scale operations into large industrial ventures. The income generated from the sale of poultry and eggs is vital for supporting households, enabling them to meet financial challenges and enhance their quality of life. Women's active participation in poultry farming not only boosts household finances but also plays a critical role in strengthening the broader national economy, indicating significant potential for further growth in this sector (Begum et al., 2019). Additionally, the effective management of poultry waste, an inevitable byproduct, has gained importance, with programs such as Integrated Pest Management (IPM) and the Collaborative Research Support Program (CRSP) promoting sustainable practices. The entrepreneurial qualities of risk-taking, expertise, and innovation, especially among women (Palanivelu and Manikandan, 2018), are essential in driving the continued success and expansion of livestock-based agribusinesses, contributing to both the economic and social progress of Bangladesh (Karimi, 2018; Das et al., 2008; Begum et al., 2019).

The livestock production system in Bangladesh is undergoing significant changes (Huque and Huda, 2016). Rising demand, driven by population growth, urbanization, and changes in income and dietary habits, is shifting traditional farming practices to more input-intensive, commercial systems amidst growing concerns about climate change (Thornton, 2010). Both farm and non-farm households are engaged in livestock rearing, with small-scale operations accounting for 67.1% to 82.6% of the livestock population, which includes 43.98 million farm animals and 137.2 million poultry (Huque and Huda, 2016). The recent expansion of commercial ventures, such as poultry farming, cattle fattening, and dairy production, is altering the traditional link between landholding size and livestock ownership. Even landless farmers are integrating dairy farming into their livelihoods, showing adaptability to changing economic conditions (Huque, 2014; Bhuiyan et al., 2017). However, challenges such as limited financial resources, inadequate technology, and insufficient training infrastructure persist.

These issues are further compounded by economic and nutritional disparities. Per capita consumption of milk and meat in Bangladesh is low, at 14.3 kg and 8.9 kg annually, meeting only 15.6% and 20.3% of nutritional needs, significantly below the averages in other developing nations (BBS, 2012; Thornton, 2010; Bhuiyan et al., 2017). Conversely, per capita egg consumption, at 115 annually, is close to the average in other developing countries (BBS, 2012). These nutritional gaps highlight the need for targeted interventions to improve food security and public health. Although previous studies have explored the contribution of the livestock sector to Bangladesh's economy, they have overlooked the challenges that exist in this sector. Therefore, understanding the current status, challenges, and opportunities in the livestock sector is essential for effective policy development. This study aims to provide an empirical analysis of the sector, offering insights for policymakers, investors, and stakeholders, with the goal of contributing to the sustainable development of livestock-based agribusiness in Bangladesh, thereby enhancing the sector's role in the national economy and improving food security.

3.0 Methodology:

This study followed a mixed-method research design combining both quantitative and qualitative approaches to assess the problems and prospects of livestock-based agribusiness in Bangladesh. Primary data were collected from livestock farmers, dairy and poultry entrepreneurs, traders, and officials of relevant government and non-government organizations through structured questionnaires, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs). Secondary data were collected from published journal articles, government reports, Bangladesh Bureau of Statistics (BBS), livestock department publications, and previous research studies.

The study area included selected rural and peri-urban regions where livestock farming and agribusiness activities were prominent. A purposive sampling technique was initially used to select study areas and specific respondent categories based on predetermined criteria, including involvement in livestock agribusiness activities, years of experience, farm size, and accessibility of respondents. Following area selection, simple random sampling was applied to select quantitative survey respondents to ensure representativeness and reduce selection bias. Approximately 50 respondents participated in the study, including 40 respondents for the quantitative survey and 10 respondents for qualitative data collection. Among the qualitative participants, 5 Key Informant Interviews (KIIs) were conducted with livestock officials, extension workers, and agribusiness experts, while 5 participants were involved in Focus Group Discussions (FGDs) representing farmers and entrepreneurs.

Collected quantitative data were analyzed using descriptive statistics such as percentages, averages, tables, and charts, while qualitative information was analyzed through thematic interpretation. The study examined major issues including inadequate financing, disease outbreaks, feed shortages, poor market access, and lack of modern technology, alongside opportunities such as employment generation, export potential, value addition, and rural economic development. Ethical considerations, including informed consent, confidentiality, anonymity, and voluntary participation, were maintained throughout the research process.

4.0 Data Analysis and Findings:

4.1 Data Collection & Procedure of KII:

The first objective of the study was to identify the main problems and constraints affecting livestock-based agribusiness in Bangladesh and the second objective was to assess the current potential and development opportunities of livestock-based agribusiness for economic development and food security. Data were collected from both primary and secondary sources, prioritizing the objectives. Primary data were collected from livestock farmers, dairy and poultry entrepreneurs, traders and officials of relevant government and non-government organizations.

The main objective of the interviews was to collect primary data from livestock farmers, dairy and poultry entrepreneurs, traders and officials of relevant government and non-government organizations. They identified the main problems and constraints affecting livestock-based agribusiness in Bangladesh and assessed the current potential and development opportunities of livestock-based agribusiness for economic development and food security and expressed their views on providing recommendations to overcome the main problems and constraints affecting livestock-based agribusiness in Bangladesh. In order to collect appropriate data, interviews were conducted through a checklist outlining the research objectives and opinions and verbally. The interviews were conducted using both open and closed questions. The checklist had a few questions that were simple, comprehensive and easy to understand.

Before interviewing the respondents, the researcher took all possible measures to prepare a report so that the respondents did not hesitate to give the correct answers. The questions were properly explained to the respondents. During the main interview, the researcher always tried to avoid multiple questions and judgmental answers.

4.2 Data Analysis:

The researcher himself collected the data by supplying checklist containing few questions among the respondents.

The data analysis has been shown in the table below: -

Problems and Constraints

4.2.1 Major Problems Faced in Livestock Agribusiness in Bangladesh

Table-1: Major Problems

Problems	Percentage (%)
High production costs (feed, medicine, etc.)	18%
Inadequate access to quality feed	14%
Lack of modern technology/equipment	10%
Insufficient veterinary services	9%
Frequent disease outbreaks	12%
Limited access to financial support/loans	11%
Poor market infrastructure (transportation, cold chain)	7%
Price instability of livestock products	8%
Lack of skilled labor/training facilities	4%
Climate change impacts (floods, droughts, etc.)	4%
Inefficient waste management	3%
Total	**100%**

Source: Questionnaire Survey, 2026

Summary and Interpretation

The survey findings indicate that high production costs (18%) are the most significant challenge faced by livestock agribusiness entrepreneurs in Bangladesh. Rising prices of feed, medicines, vaccines, and other production inputs have substantially increased operational expenses, reducing profit margins and discouraging business expansion. The second major challenge is inadequate access to quality feed (14%), which directly affects animal health, productivity, and overall farm profitability. Many farmers reported difficulties in obtaining nutritious and affordable feed, particularly in rural areas. Frequent disease outbreaks (12%) and limited access to financial support and loans (11%) were also identified as critical constraints. Disease outbreaks often result in livestock mortality and economic losses, while inadequate financial services limit farmers' ability to invest in modern farming practices and business growth. Furthermore, lack of modern technology and equipment (10%) and insufficient veterinary services (9%) continue to hinder productivity improvements. Many farmers still rely on traditional farming methods due to limited access to advanced technologies and professional veterinary care. Market-related challenges such as price instability of livestock products (8%) and poor market infrastructure (7%) also affect profitability. Fluctuating market prices, transportation difficulties, and inadequate cold-chain facilities often prevent producers from receiving fair prices for their products. Although comparatively lower in percentage, issues such as lack of skilled labor and training facilities (4%), climate change impacts (4%), and inefficient waste management (3%) remain important concerns for the long-term sustainability of the livestock sector. Overall, the findings suggest that reducing production costs, ensuring access to quality feed, strengthening veterinary services, improving financial support mechanisms, and developing market infrastructure should be prioritized to enhance the growth and sustainability of livestock-based agribusiness in Bangladesh.

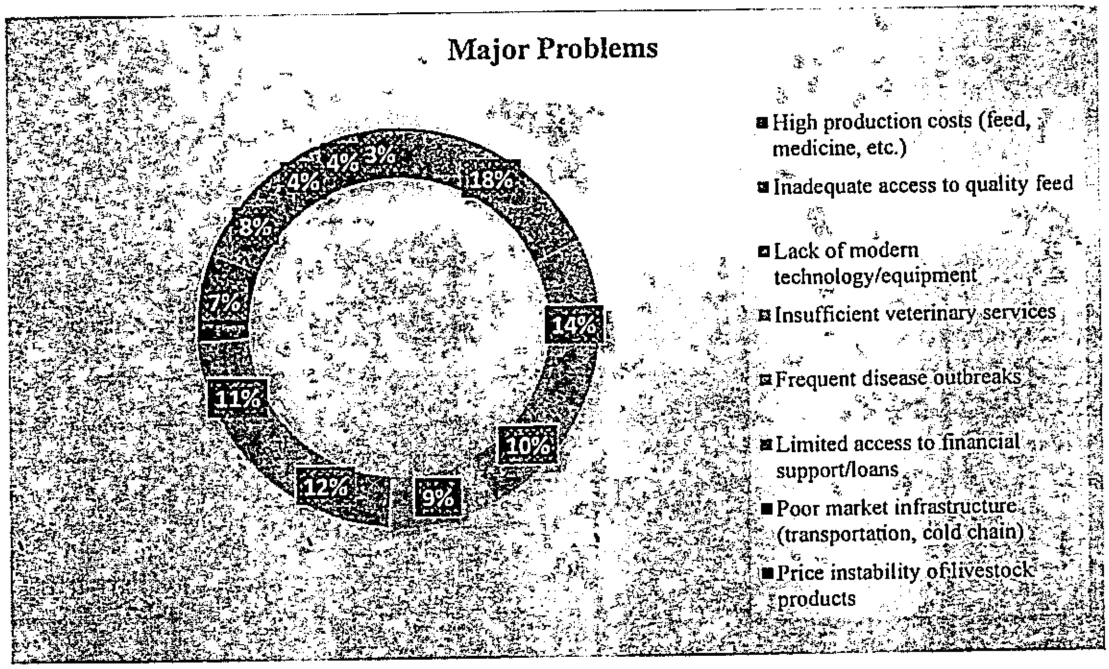


Figure-1: Major Problems Faced in Livestock Agribusiness in Bangladesh

4.2.2 Impact of Problems on Business Profitability and Sustainability

Table-2: Impact of problems

Level of Impact	Percentage (%)
Very significantly	38%
Significantly	32%
Moderately	20%

Slightly	7%
Not at all	3%
Total	**100%**

Source: Questionnaire Survey, 2026

Summary and Interpretation

The findings reveal that the identified challenges have a substantial impact on the profitability and sustainability of livestock-based agribusinesses in Bangladesh. A majority of the respondents (38%) reported that these problems affect their businesses very significantly, indicating that issues such as high production costs, disease outbreaks, inadequate access to quality feed, and limited financial support directly threaten business operations and long-term viability. Additionally, 32% of the respondents stated that these challenges affect their businesses significantly. This suggests that a large proportion of livestock entrepreneurs experience reduced productivity, increased operational risks, and unstable income due to existing sectoral constraints. Together, 70% of the respondents believe that the challenges have either a very significant or significant impact on their businesses. Furthermore, 20% of respondents perceived the impact as moderate, indicating that while these problems create difficulties, they are able to manage them through experience, alternative resources, or effective farm management practices. A relatively small proportion of respondents (7%) reported that the problems affect their businesses only slightly, while only 3% stated that the challenges do not affect their profitability and sustainability at all. These respondents are likely to have better access to resources, modern technologies, financial support, and market opportunities. Overall, the results demonstrate that the majority of livestock agribusiness operators in Bangladesh face considerable challenges that negatively influence business profitability and long-term sustainability. The findings highlight the urgent need for policy interventions aimed at reducing production costs, improving access to quality inputs and veterinary services, strengthening financial support mechanisms, and enhancing market infrastructure. Addressing these constraints will be crucial for ensuring the sustainable growth and competitiveness of the livestock agribusiness sector in Bangladesh.

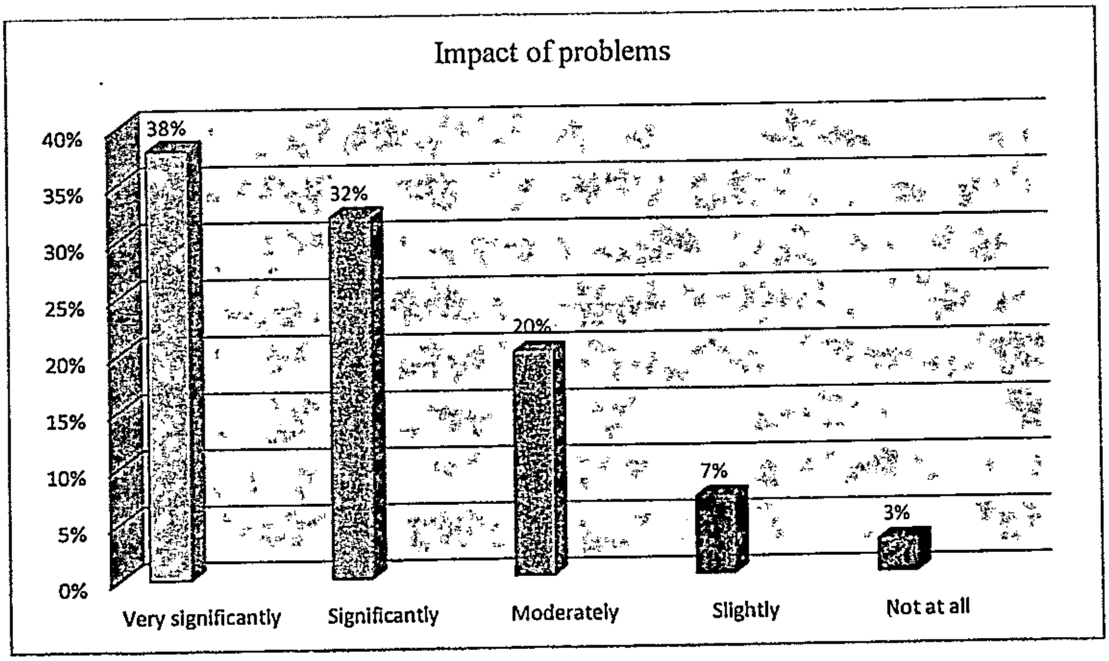


Figure-2: Impact of Problems on Business Profitability and Sustainability

4.2.3 Receiving training or extension services

Table-3: Receiving training

Response	Percentage (%)
Yes	82%
No	18%
Total	**100%**

Source: Questionnaire Survey, 2026

__Summary and Interpretation__

The survey results show that **82%** of the respondents have received training or extension services related to modern livestock farming or agribusiness management, while **18%** have not received any such support. This indicates that a majority of livestock entrepreneurs have access to training opportunities, which can help improve farming practices, productivity, and business management skills. However, a considerable proportion of respondents still lack access to training and extension services, suggesting the need for broader outreach and capacity-building programs in the livestock sector.

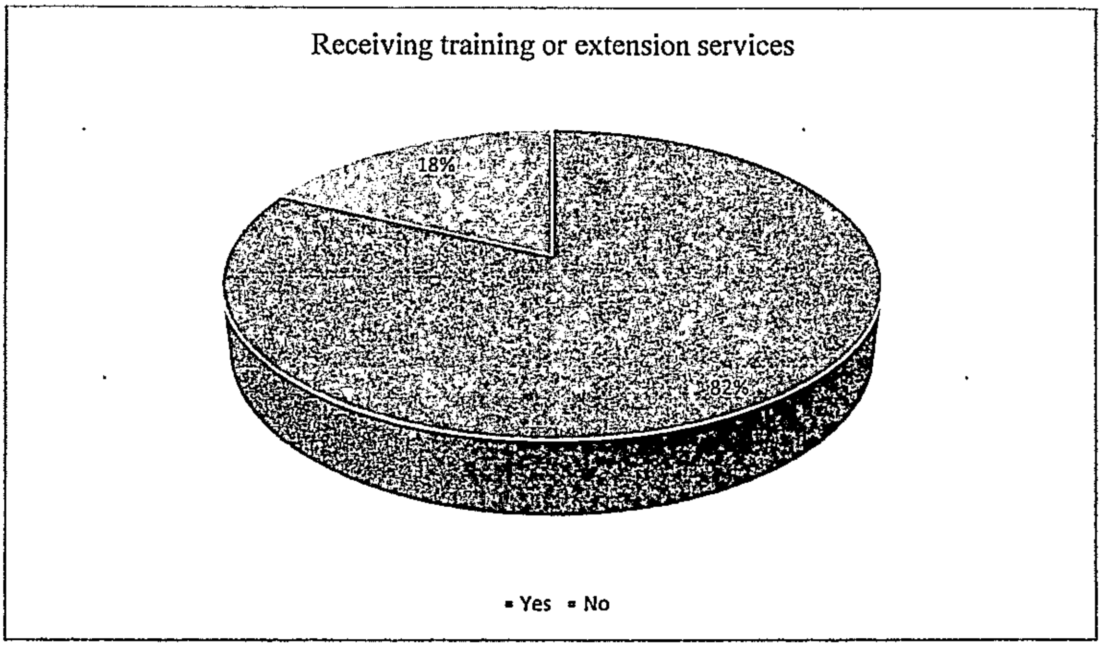


Figure-3: Receiving training or extension services

4.2.4 Summary of Training and Extension Services Received by Respondents

The question was about the organization and the nature of the training. Among the 40 respondents who reported receiving training or extension services related to modern livestock farming and agribusiness management, the majority received support from government and non-government organizations. Approximately 45% of the respondents participated in training programs conducted by the Department of Livestock Services (DLS), focusing on livestock health management, vaccination practices, disease prevention, and improved feeding techniques. Around 20% received training from various NGOs and development projects, which emphasized small-scale livestock entrepreneurship, income generation, and sustainable farming practices. In addition, 15% of the respondents attended training organized by agricultural universities and research institutions, where they learned about modern livestock production technologies, breed improvement, artificial insemination, and farm record-keeping. About 10% received training from private feed and pharmaceutical companies, mainly on feed management, animal nutrition, and the proper use of veterinary medicines. The remaining 10% participated in workshops and extension programs offered by local livestock offices and farmer associations. The nature of the training varied according to the needs of the participants. Most respondents reported receiving practical knowledge on dairy and poultry farm management, disease control measures, feed formulation, housing systems, and livestock marketing. Several respondents also received guidance on business planning, financial management, value chain development, and the adoption of modern technologies to increase productivity and profitability. Overall, the respondents considered these training and extension services beneficial for improving their technical knowledge, farm management skills, and business performance. However, many participants expressed the need for more frequent, hands-on, and advanced training programs, particularly in areas such as agribusiness management, digital marketing, climate-resilient livestock production, and value-added processing. The findings suggest that expanding training opportunities can play a significant role in addressing existing challenges and enhancing the prospects of livestock-based agribusiness in Bangladesh.

Prospects and Opportunities

4.2.5 Opportunities for Growth and Development of Livestock-Based Agribusiness in Bangladesh

Table-4: Growth and development opportunities

Opportunities	Percentage (%)
Increasing consumer demand for livestock products	20%
Potential for export	12%
Value addition through processing	15%
Government support/subsidies	14%
Availability of new technologies	13%
Employment generation	10%
Rural economic development	16%
Total	**100%**

Source: Questionnaire Survey, 2026

Summary and Interpretation

The survey results indicate strong optimism regarding the future growth of livestock-based agribusiness in Bangladesh. The most significant opportunity identified by respondents is the **increasing consumer demand for livestock products (20%)**, driven by population growth, urbanization, and changing dietary patterns that favor higher consumption of milk, meat, and eggs. **Rural economic development (16%)** and **value addition through processing (15%)** are also considered major opportunities. Respondents believe that expanding processing facilities for dairy and meat products can significantly increase profitability and reduce post-harvest losses, while simultaneously strengthening rural economies through improved income generation and local value chain development. **Government support and subsidies (14%)**

and the **availability of new technologies (13%)** are also viewed as important drivers of sectoral growth. Many respondents highlighted that policy support, veterinary services, and access to modern farming technologies can enhance productivity and encourage investment in livestock agribusiness. In addition, **export potential (12%)** is recognized as a promising opportunity, especially for processed livestock products that can meet international quality standards. **Employment generation (10%)** is another key benefit, as the sector has the capacity to create jobs for rural youth, women, and small entrepreneurs across the value chain. Overall, the findings suggest that livestock-based agribusiness in Bangladesh has strong growth prospects supported by rising demand, technological advancement, policy support, and opportunities for value addition.

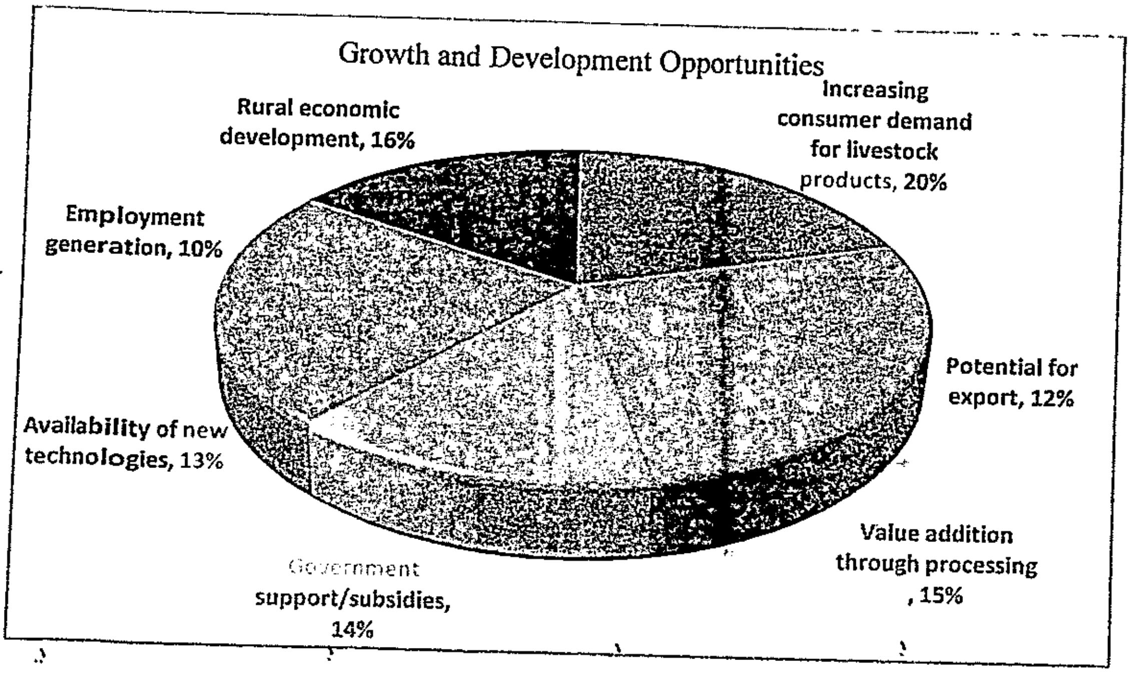


Figure-4: Opportunities for Growth and Development of Livestock-Based Agribusiness in Bangladesh

4.2.6 Measures to Enhance the Prospects of Livestock-Based Agribusiness

Based on responses from 40 livestock agribusiness entrepreneurs, several important measures were identified to enhance the growth and sustainability of the sector in Bangladesh. The most frequently mentioned requirement is access to low-cost and quality feed and inputs, as respondents reported that high input prices significantly reduce profitability and limit farm expansion. Many also emphasized the need for improved veterinary and animal health services, including timely treatment, vaccination, and regular disease monitoring to reduce livestock losses. Another key measure is access to affordable credit and financial support, as lack of capital is a major barrier for small and medium farmers to invest in improved livestock farming practices. Respondents also highlighted the importance of training on modern livestock farming and agribusiness management, which can improve technical knowledge, farm productivity, and business decision-making. Improvement of market infrastructure such as transportation and cold storage facilities was also considered essential to ensure fair prices and reduce product losses. In addition, adoption of modern technology and mechanization was identified as a way to increase efficiency and production capacity. Finally, respondents suggested price stabilization policies for livestock products and strengthening extension services to provide continuous technical support and market guidance. Overall, the findings indicate that a combination of improved input access, financial facilities, technical training, healthcare services, and infrastructure development is necessary to enhance the prospects of livestock-based agribusiness in Bangladesh.

Policy and Support

4.2.7 Expected Support from Government or Non-Government Organizations

Table-5: Expected help

Types of Support	**Percentage**
Easier access to credit/loans	25%
Subsidies on feed/medicine	22.5%
Improved veterinary and extension services	20%
Training on modern farming techniques	12.5%
Better market access and infrastructure	10%
Research and development in livestock breeds	5%
Support for waste management	5%
Total	**100%**

Source: Questionnaire Survey, 2026

Summary and Interpretation

Based on the responses of 40 livestock agribusiness entrepreneurs, the highest expected support from government and non-government organizations is **easier access to credit and loans (25%)**. Respondents emphasized that insufficient capital is a major barrier to expanding and modernizing livestock farming activities. The second most demanded support is **subsidies on feed and medicine (22.5%)**, as rising input costs significantly reduce profitability and sustainability of livestock businesses. **Improved veterinary and extension services (20%)** ranked third, indicating the importance of better animal health care, disease prevention, and technical guidance at the field level. Additionally, **training on modern farming techniques (12.5%)** was highlighted as an important need for improving knowledge, productivity, and farm management skills. **Better market access and infrastructure (10%)** was also identified as necessary to ensure fair pricing and reduce transportation and storage losses. A smaller proportion of respondents mentioned **research and development in livestock breeds (5%)** and **support for waste management (5%)**, reflecting longer-term sustainability concerns. Overall, the findings suggest that financial support, input subsidies, veterinary services, and capacity building are the most critical areas of institutional support required to enhance livestock-based agribusiness in Bangladesh.

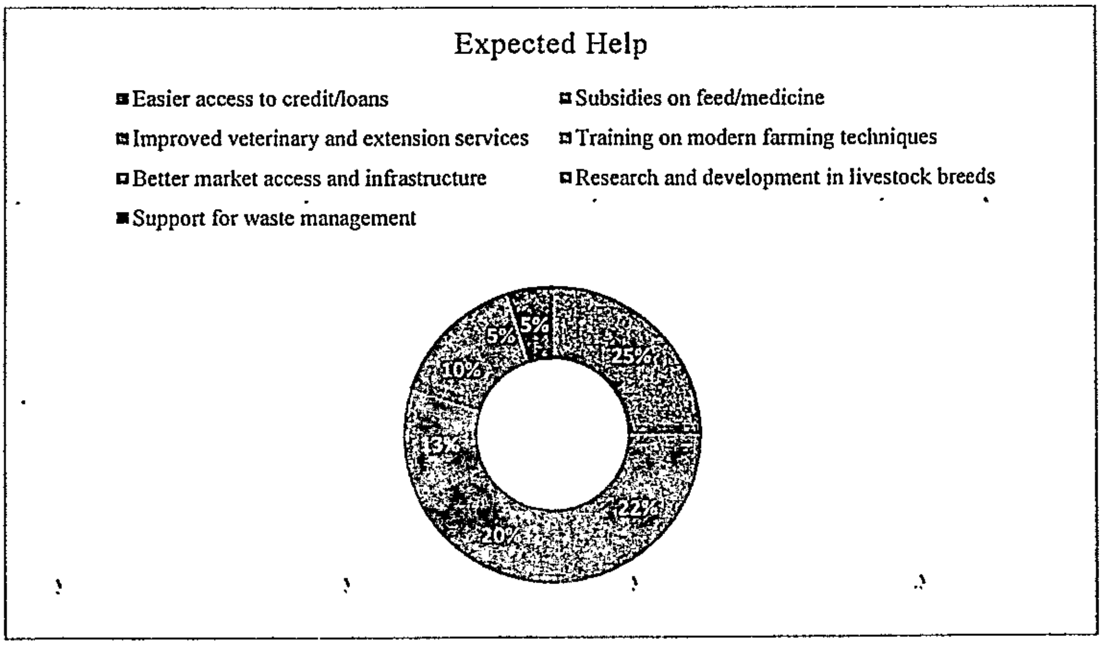


Figure-5: Expected Support from Government or Non-Government Organizations

Additional Comments

Table-6: Additional Comments and Suggestions Regarding Livestock-Based Agribusiness in Bangladesh

Sl. No.	Comments/Suggestions	Expected Outcome
1	Improve access to affordable credit facilities for livestock farmers.	Increased investment and business expansion.
2	Strengthen veterinary and animal health services at the grassroots level.	Reduced disease outbreaks and mortality rates.

3	Ensure the availability of quality feed and feed ingredients at reasonable prices.	Higher productivity and profitability.
4	Promote modern farming technologies and digital extension services.	Improved farm management and efficiency.
5	Develop cold chain and storage facilities for livestock products.	Reduced post-harvest losses and better market access.
6	Enhance training programs on livestock entrepreneurship and business management.	Improved skills and sustainable agribusiness practices.
7	Strengthen market linkages between producers, processors, and consumers.	Fair pricing and increased income for farmers.
8	Encourage private sector investment in livestock value chains.	Greater employment opportunities and sector growth.
9	Improve research and innovation on breed development and disease control.	Enhanced productivity and resilience.
10	Formulate supportive policies and strengthen regulatory frameworks.	Sustainable development of the livestock sector.
11	Promote climate-smart livestock farming practices.	Better adaptation to climate change impacts.
12	Encourage youth and women participation in livestock-based agribusiness.	Inclusive economic growth and rural employment.

Source: Questionnaire Survey, 2026

Overall Suggestion:

A coordinated approach involving government agencies, private sector organizations, research institutions, and farmers is essential to strengthen livestock-based agribusiness in Bangladesh and ensure its long-term sustainability, productivity, and contribution to rural economic development.

5.0 Challenges of the study

Sl. No.	Challenges	Description
1	Limited Availability of Reliable Data	Accurate and updated data on livestock production, marketing, and profitability may be difficult to obtain.
2	Geographic Dispersion of Respondents	Livestock farmers and agribusiness actors are scattered across different regions, making data collection time-consuming and costly.
3	Respondent Reluctance	Some farmers and entrepreneurs may be unwilling to share financial or business-related information.

4	Seasonal Variations	Livestock production and market conditions vary by season, which may affect the consistency of findings.
5	Resource Constraints	Limited time, budget, and manpower may restrict the scope of the study.
6	Diverse Nature of the Sector	The livestock sector includes dairy, poultry, beef, goat, and feed industries, making comprehensive analysis challenging.
7	Market Price Fluctuations	Frequent changes in input and output prices can affect the assessment of profitability and prospects.
8	Policy and Regulatory Changes	Government policies and regulations may change during the study period, influencing the results.
9	Lack of Record Keeping	Many small-scale farmers do not maintain proper records, making it difficult to obtain accurate information.
10	Accessibility Issues	Remote rural areas may be difficult to access due to poor transportation and infrastructure.

The study may face challenges related to data availability, respondent participation, resource limitations, and the diverse nature of the livestock sector. Despite these constraints, careful research design and appropriate data collection methods can help generate valuable insights into the problems and prospects of livestock-based agribusiness in Bangladesh.

6.0 Conclusion and Recommendations:

6.1 Conclusion:

The study concludes that livestock-based agribusiness in Bangladesh plays a crucial role in rural development by contributing to income generation, employment creation, nutrition improvement, and poverty reduction. Despite its strong potential, the sector is constrained by several challenges, including inadequate access to finance, high cost of feed, disease outbreaks, limited veterinary services, poor market linkage, and lack of modern technology. These problems reduce productivity and restrict the overall growth of livestock enterprises, particularly among small and marginal farmers. On the other hand, the study identifies significant prospects for development in this sector. These include increasing demand for livestock products, opportunities for value addition, export potential, and expansion of rural agribusiness activities. With proper policy support, improved infrastructure, access to credit facilities, and modern technological adoption, the livestock sector can become more productive and sustainable.

Overall, the study concludes that strengthening livestock-based agribusiness can play a vital role in accelerating rural economic growth and achieving long-term poverty alleviation in Bangladesh.

6.2 Recommendations:

- Improve access to low-interest agricultural credit.
- Strengthen veterinary and animal health services.
- Ensure timely supply of quality feed at affordable prices.
- Provide regular training for farmers and entrepreneurs.
- Promote modern livestock farming technologies.
- Expand government livestock extension services.
- Develop better market linkage for livestock products.
- Encourage private sector investment in agribusiness.
- Implement disease control and vaccination programs effectively.
- Establish cold storage and processing facilities.
- Improve transport and logistics systems for livestock products.
- Support women participation in livestock farming.
- Introduce insurance schemes for livestock farmers.
- Strengthen research and development in livestock sector.
- Promote value-added livestock products for export.
- Ensure policy support and monitoring for sustainable growth.

7.0 Declaration: I declare that this paper contains neither any plagiarized material nor any AI-generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

References

Ahmed, S., Rahman, M. and Islam, T. (2018) *Women participation in poultry farming and socioeconomic development in Bangladesh.* Dhaka: Agricultural Research Publications.

Aggarwal, R. and Malhotra, R. (2018) 'Entrepreneurship and economic growth: A global perspective', *International Journal of Business Studies*, 12(2), pp. 45–58.

Akoijam, S.L. (2017) 'Role of women in poultry farming and livelihood development', *Journal of Rural Development*, 36(4), pp. 89–98.

Begum, R., Khan, M. and Islam, S. (2019) 'Women's participation in poultry farming and its impact on household income in Bangladesh', *Bangladesh Journal of Agricultural Economics*, 42(1), pp. 55–67.

Bhuiyan, A.K.F.H., Khan, M.A.S. and Deb, G.K. (2017) *Livestock in Bangladesh: Prospects and challenges*. Dhaka: Department of Livestock Services.

Bangladesh Bureau of Statistics (BBS) (2012) *Statistical Yearbook of Bangladesh*. Dhaka: Ministry of Planning, Government of Bangladesh.

Das, N.G., Uddin, M.T. and Islam, M.S. (2008) 'Entrepreneurship development in livestock farming in Bangladesh', *Bangladesh Journal of Agricultural Research*, 33(2), pp. 215–223.

Department of Livestock Services (DLS) (2016) *Livestock Economy at a Glance*. Dhaka: Ministry of Fisheries and Livestock, Government of Bangladesh.

Dutta, S. (2018) *Entrepreneurship and economic transformation*. New Delhi: Oxford University Press.

Hashmi, A. (2024) 'Entrepreneurship and employment generation: Emerging global perspectives', *International Journal of Economic Studies*, 15(1), pp. 25–39.

Huque, K.S. (2014) *Smallholder dairy farming and rural livelihood in Bangladesh*. Dhaka: Bangladesh Livestock Research Institute.

Huque, K.S. and Huda, N. (2016) 'Livestock production systems in Bangladesh: Prospects and constraints', *Bangladesh Livestock Journal*, 3(1), pp. 1–12.

Karimi, S. (2018) *Entrepreneurial innovation and sustainable development*. London: Routledge.

Khan, M.J., Peters, K.J. and Uddin, M.M. (2009) 'Feeding strategy and livestock ownership patterns among rural households in Bangladesh', *Livestock Research for Rural Development*, 21(5), pp. 1–9.

Mujeri, M.K., Rahman, M. and Alam, S. (2021) 'Technological transformation in livestock agribusiness in Bangladesh', *Journal of Agricultural Development Studies*, 8(2), pp. 102–117.

Palanivelu, V.R. and Manikandan, K. (2018) 'Entrepreneurial qualities and business success among women entrepreneurs', *International Journal of Entrepreneurship*, 6(2), pp. 33–47.

Patel, R. (2024) *Women entrepreneurship and livestock sector development*. New Delhi: Springer.

Rahman, M., Islam, S. and Hasan, M. (2020) 'Contribution of livestock sector to rural livelihood and economic growth in Bangladesh', *Journal of Agricultural Economics and Rural Development*, 7(3), pp. 88–99.

Rahman, M., Sarker, M. and Islam, N. (2023) 'Challenges and opportunities in livestock agribusiness in Bangladesh', *Asian Journal of Agricultural Research*, 17(2), pp. 75–91.

Rashid, M., Alam, M. and Hossain, S. (2023) 'Livestock-based agribusiness and rural economic development in Bangladesh', *Journal of Agribusiness and Rural Studies*, 11(2), pp. 54–71.

Sagar, P., Kumar, A. and Singh, R. (2023) 'Entrepreneurship and employment generation in developing economies', *International Journal of Economics and Management Studies*, 14(3), pp. 101–118.

Sarker, M., Rahman, M. and Uddin, S. (2021) 'Structural constraints in livestock agribusiness in Bangladesh', *Bangladesh Journal of Agricultural Sciences*, 48(1), pp. 70–84.

Thornton, P.K. (2010) 'Livestock production: Recent trends, future prospects', *Philosophical Transactions of the Royal Society B*, 365(1554), pp. 2853–2867.

Usha, T. and Devakumar, C. (2018) 'Smallholder farmers and agribusiness challenges in developing countries', *International Journal of Agricultural Extension*, 6(1), pp. 15–26.

Seminar Paper

on

Influence of NILG Research on Policymaking in Bangladesh's Local Government Division: Extent and Mechanisms of Knowledge Translation

Submitted By

Mohammed Abu Naser Beg

Roll No-122

15.06.2026

157th Advanced Course on Administration and Development

Bangladesh Public Administration Training Centre, Savar, Dhaka-1343

Table of Contents

List of Abbreviations

Abbreviation	Full Form
CPD	Centre for Policy Dialogue
DDLG	Deputy Director of Local Government
EBPM	Evidence-Based Policy Making
KII	Key Informant Interview
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KTA	Knowledge-to-Action Framework
LGD	Local Government Division
NILG	National Institute of Local Government
ODI	Overseas Development Institute
SPSS	Statistical Package for Social Sciences
UP	Union Parishad

Note: Abbreviations are listed in alphabetical order. Each abbreviation is also elaborated upon its first use in the text

Abstract

Since its inception in 1972, the National Institute of Local Government (NILG), the only research and training institute for the Local Government Division (LGD), has undertaken 297 research studies, published 108 books and produced a journal now in its 49th volume. Yet, to date there is limited empirical understanding of how much NILG research is used to inform LGD policy-making. The study will ask two questions about NILG's role in the policy making processes of LGDs: (1) what percentage of research is used, and (2) how effective are channels for disseminating research.

A total of 16 key informants (8 NILG researchers and 8 NILG & LGD policymakers) were purposefully sampled and interviewed using a mixed methods approach to accomplish these objectives. The results are a sad reflection. Survey results show that 87.5% (14/16) of the respondents felt that the NILG research is very important or important for policy formulation, but none in either of these groups felt that the NILG research recommendations were mostly or fully implemented, while 75% (12/16) felt that the implementation was only partial. Also worrying, only 3 of 8 policymakers (37.5%) could name a specific policy that was shaped by NILG research, compared to 7 of 8 researchers, suggesting a definite problem with communication and visibility. There is still some interactions between the two groups, but this occurs in sporadic fashion, with workshops, seminars and research reports being the most common and effective mediums for dissemination.

The main challenges are political mismatch, bureaucratic conservatism, limited policy advocacy capacity of NILG and lack of a formal accountability system. The study concludes that the NILG's role in good governance at the local level is useful, but not being fully leveraged. It suggests creating a Policy Liaison Unit, a digital repository of knowledge, a formal process for translating research recommendations into policies and involving policymakers in the research design process, to effectively bridge the research–policy gap.

1. Introduction

1.1 Back ground

The National Institute of Local Government (NILG) is the only research, training, and policy support institute under the Local Government Division, which has a pivotal role in strengthening local governance in Bangladesh. Since 1972 it has carried out 297 research projects (15 of which are ongoing this year), published a journal (now at Volume 49.1 (Issue 97)), and produced 108 books on action oriented and problem-oriented aspects of local government, rural development and allied areas. These deliverables address the real challenges of local government institutions and aim to offer the Local Government Division (LGD) practical recommendations to improve policy development, which is one of the missions of NILG's vision.

Although there is a close relationship between research and policy, it does not always make sense. The effects of research results on policymaking are not linear and are shaped and reshaped as a result of interpretation, discussion and sometimes reframing within institutional and administrative contexts **(Weiss, 1979; Nutley et al., 2007).** The knowledge translation process plays an important role in determining how research translates into policy in practice.

The fruits of this process are much more than those of institutions—they are for the everyday lives of ordinary people. Citizens have access to their most basic services like birth registration, village court justice, safety net distribution, local infrastructure and sanitation through local government institutions like Union Parishads, Upazila Parishads, Pourashavas and City Corporations. Failure of research to influence policy means the cost falls at the door of the citizen in the shape of delayed services, lack of work on grievances and the poor quality of services offered in some localities as compared to others. This means that the uptake of research into policy and the effectiveness of various research-to-policy pathways are of importance not only for governance on paper, but also for the citizens' services that are provided **(Lavis et al., 2003; Nutley et al., 2007).**

1.2 Problem Statement

Work of NILG and policy making in LGD are going on side by side as routine work throughout the year. However, little empirical knowledge exists on the extent that the research output of NILG has any impact on LGD policies. While it is generally assumed that research drives policy, evidence on how this happens is lacking. In general, results of research are delivered via official publications, consultations, dissemination workshops and informal communication, but little is known about which channels are effective in disseminating NILG findings to decision makers.

The situation is worsened by political influence and bureaucracy. Recommendations that do not align with political commitments or popular sentiment often are shelved, and the multiple layers of administrative processes and a hierarchical culture further impede or dilute whatever evidence comes to the policy table. There is no formal system to monitor whether recommendations are followed or not, there is no one to be held to account when evidence is not followed, and institutional accountability quietly disappears. That means there is a constant disconnect between research and policy, and the promise of better service delivery on the ground, based on research, continues to go unfulfilled. It highlights the need to be aware of how far NILG research goes, and how it can most effectively reach the policy makers.

1.3 Objectives

1.3.a General Objectives

To analyze how NILG Research contributes to policy-making in LGD, focusing on knowledge translation processes.

1.3.b Specific Objectives

I. To measure the extent to which NILG research informs policy formulation
II. To identify the effectiveness of the channels through which NILG research insights are conveyed to policymakers

1.4 Rationale

The main mandate of NILG is to support local governance through providing training & partnerships that build the capacity of local government institutions and doing research related with local government & recommend to set policies for the strengthen of local government systems. According to mandate, training is provided round the year & the impact of training is being analyzed through research studies every certain interval. Along with the providing training, research studies are conducted round the year also. But it is hard to find out any impact analysis of this research studies by which it can be understood how research recommendations work to set policies for the strengthen of local government systems.

It is therefore justified to study how and to what extent NILG research findings translate into policy action, how this knowledge transfer takes place, and what the challenges are to the use of research evidence in policy making.

2. Literature Review

Over the last years the term 'evidence-based policymaking' has been very much part of the public administration and governance agenda. It is expected that research institute is not only a source of knowledge but is also involved in policy formulation, implementation and institutional reform. However, the difficulty to transfer the research results to public policy, especially to local governance institutions is a major challenge in the developing country such as Bangladesh.

Knowledge translation is the process of synthesizing study results, communicating & integrating them into policy and administration. It attempts to bridge the gap between knowledge generation and policy making by translating research evidence into practical policy-relevant information. This is considered as a very important tool of evidence-based governance.

This concept of research uptake is closely related to the extent to which policies and administrative institutions reach, perceive and leverage research findings in decision making processes. Research can influence policy directly, via recommendations, or indirectly, via policy debates and institutional and administrative orientations over time. Policy influence indicates the extent of influence of the research findings.

The framework of Evidence-Based Policy Making **(EBPM)** is closely associated with the discussion which focuses on the use of empirical evidence in governance and public decision-making. The knowledge-to-Action **(KTA)** Framework and Research Utilization Theory also elaborate on how research makes its way from knowledge generation to policy adoption via various pathways **(Lavis et al., 2003; Nutley et al., 2007).**

In the context of developing countries, such as Bangladesh, factors such as political context, bureaucratic structure, institutional capacity and communication networks play a key role in the effectiveness of knowledge translation into the policymaking processes **(Rahman, 2010).**

The literature reviewed internationally identifies the role of research institutions to provide evidence-based recommendations and policy analysis that can shape policy. This, however, depends on political considerations, acceptance by the institutions, and effective communication between the policy makers and the researchers.

Weiss (1979) insisted that research influences policy at a slow and steady pace via conceptual understanding, not application. **Nutley et al. (2007),** on the other hand, pointed out the need to have ongoing dialogue between research and policy for uptake to be effective.

Studies shows that the interest area of researchers are mainly fiscal autonomy, regulatory functions, governance capacity & service delivery on local governance. **Rounaq Jahan (1997)** found that poor administrative coordination and implementation gaps are the main challenges in local governance. Similarly, **Sultan Hafeez Rahman (2010)** noted that the centralized pattern of administration, lack of capacity and donor-driven reforms remain to have an effect on the policies and field administration for local governments.

Nevertheless, there has been very sparse attention on the research role of National Institute of Local Government **(NILG, 2025)** – being the only training and research institute within the Local Government Division, in shaping local government policies and promoting evidence-based reforms in governance through regular research studies, half yearly journal publication and book publication on local government. Moreover, how NILG's research suggestions become policy and how this policy then influences governance decision making is relatively under researched in the existing literature **(NILG, 2025).**

Research also shows that findings are shared with policy makers through a range of formal and informal means including through policy discussions, workshops, training, advisory support and government consultations. These processes involve key stakeholders such as researchers, policy makers and actors in administration. Regular interaction between researchers and policy makers enhances the incorporation of evidence into policy processes **(John N. Lavis et al., 2003).** Likewise, **Nathan Caplan (1979)** pointed out that political and organizational contexts may influence the uptake and use of research in policy.

Though there are numerous works regarding local governments, it is difficult to find in the literature any work that works on the impact of research in policy making, direct or indirect. This is what needs to be researched.

Thus, this study aims to find out the extent to which the findings of the National Institute of Local Government (NILG) influence the policymaking process under the Local Government Division and the channel through which the findings could reach the policy makers effectively.

3. Methodology

3.1 Sample Design

The study mainly used the qualitative method with supplementary quantitative data to examine the relationship between research findings and policy formulation. In pursuit of the objectives, data were gathered from selected researchers from NILG (1 Joint Director, 4 Deputy Directors, 1 Assistant Director, 2 Research Officers= 8 person) and from officials of NILG (2 Directors, Joint Secretaries) and the Local Government Division, Ministry of Local Government, Rural Development and Co-operatives (4 Joint Secretaries, 2 Deputy Secretaries=6 person); total=8 person who related with policy making. The data were collected purposively, taking into consideration the representativeness of the actors both researchers and policymakers, and it was expected that the views of both sides would be captured.

There are three reasons why 16 responses are adequate to represent researcher-policymaker interaction. The population, itself small and specialized, is that of the officials who do NILG research and NILG & LGD officials who deal with local government policy; and the respondents selected covered practically almost all ranks undertaking this work ranging from Research Officer to Joint Secretary. Second, the equal number of researchers and policymakers (8 each) provides the opportunity to see the same questions from both ends of the research to policy chain, with each encounter described by both the sender and the recipient of research evidence. Third, the number of key informants in qualitative key informant studies is not as important as the depth and position of the informants; **Guest, Bunce and Johnson (2006)** demonstrated that data saturation typically occurs within the first 12 key informant interviews, as subsequent responses tend to replicate themes already identified in earlier interviews.

3.2 Data Collection Method

To ensure comprehensive analysis, both primary and secondary data (mixed-methods approach) was used in this study. Sample size was determined based on available resources and research scope within the allocated short 3 (three) days time for data collection. Primary data were collected through Key Informant Interviews **(KIIs)** guided by a semi-structured questionnaire to ensure consistency while allowing for open-ended responses. Secondary data were collected from research papers, peer- reviewed journals, relevant books, newspaper articles, official records, relevant documents, different laws, Acts, regulations, rules published predominantly within the last five years.

3.3 Data Analysis

Collected data were accumulated, categorized and analyzed through the use of Statistical Package for Social Science (SPSS), MS Excel. In addition, Qualitative data were presented in narrative or tabular form and Quantitative data were presented in numerical form with statistical analysis (by means of diagrams, charts, tables); Citation analysis was used to examine how specific research contributes to the actual policy papers; Policy tracing was applied to demonstrate how these rules evolve when there is new data; Network mapping was done to visually connect the researchers with the lawmakers. The analysis was conducted based on the goals of the study, and mainly based on the qualitative data obtained, supplemented with quantitative data as necessary.

4. Findings

Results are reported on the two specific objectives:
(i) the extent of NILG research use in policy formulation; and (ii) the effectiveness of the modes of NILG research result transfer to the policy-maker. The results come from the KII responses of the researcher (Group A, n=8) and policymakers (Group B, n=8).

4.1 Awareness and Perception of NILG Research

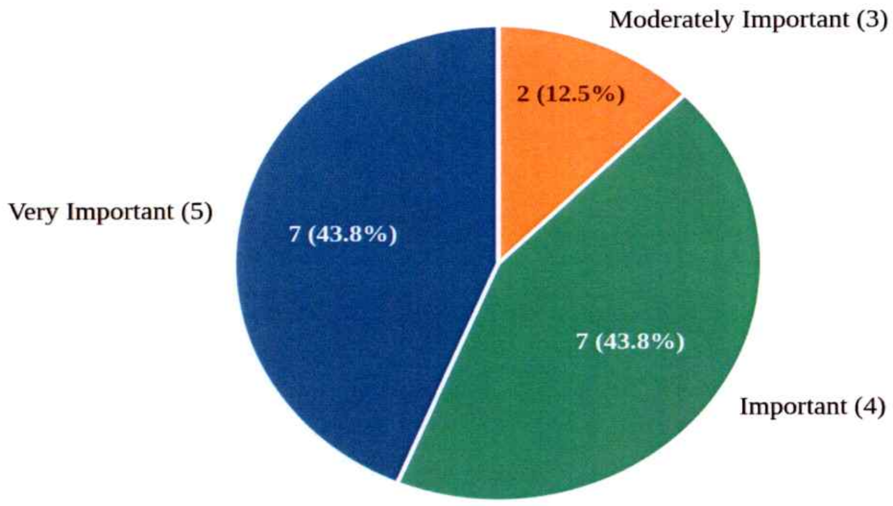
100% of the 16 respondents in both groups reported that they knew NILG carried out research and that research is understood to be a central part of the institutional work and that it is done every year. Significance of this was however not the same for every group.

Table 1 shows the perceived importance of NILG research for policy formulation.

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
3	Moderately Important	0	2	2
4	Important	3	4	7
5	Very Important	5	2	7

In Group A, five respondents (62.5%) rated NILG's research as 'Very Important' and three as 'Important', indicating high internal confidence in the research relevance of the institution. Group B's responses were more spread out: 4 rated it 'Important', 2 rated it 'Moderately Important' and 2 rated it 'Very Important', indicating that while generally positive, policymakers have more varied views about its importance. Notably, none of the respondents in either group viewed NILG's research as unimportant, indicating that NILG's knowledge products are basically institutionally legitimate.

Figure 1: Combined Rating – Importance of NILG Research (n=16)



Note: Ratings are based on a 5-point scale (1 = Not important at all, 5 = Very important). No respondent selected ratings 1 or 2.

4.2 Extent of research utilization

Respondents were asked how much they use NILG research findings and recommendations in their professional work. There are some marked differences between the two groups in their responses.

Table 2: Extent of NILG Research Utilization in Professional Work

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
1	Never used	0	1	1
2	Very little / Rarely	1	1	2
3	Occasionally	3	4	7
4	Regularly	3	2	5
5	Extensively	1	0	1

Generally, Group A respondents indicated more utilization, with one respondent indicating that they used the findings extensively and three indicating regular use. The main areas of use in NILG are training curriculum development, training module design, manuals, strategic planning, post training evaluations and impact assessments. For Group B, the rate of utilization was comparatively lower, with four using findings occasionally, one never, and one rarely. For those who said they used it regularly, it was used mainly for policy formulation, supervision of the implementation of policy, and field administration. One Group B respondent reported that the Reform Commission made a point of consulting with NILG in the process of preparing its recommendations during the interim government's time in office, an indication of the value of research during a key governance transition.

4.3 Influence of NILG Research on Policy and Decision-Making

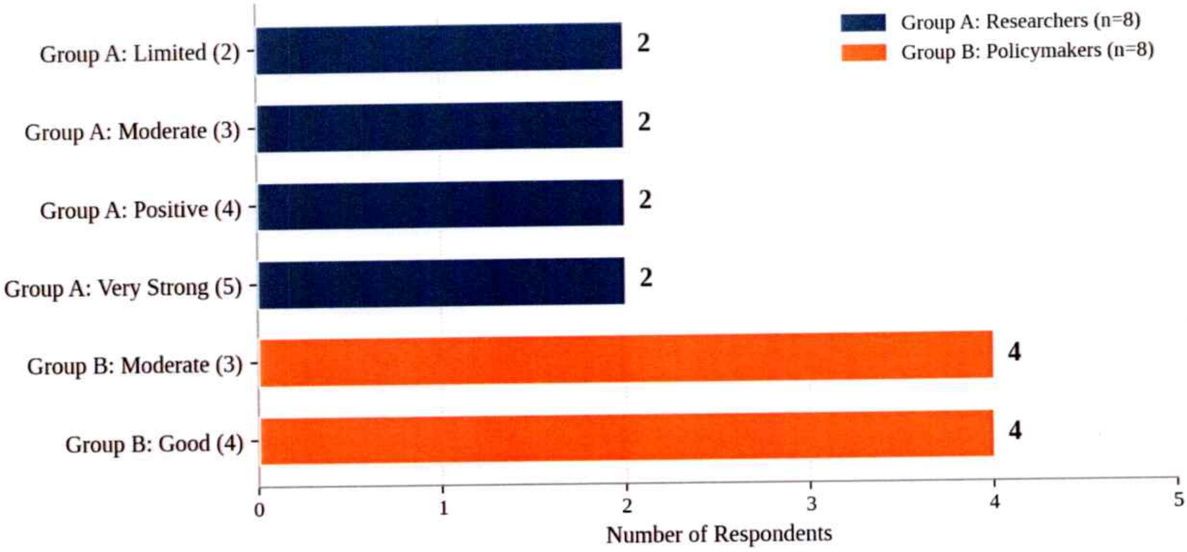
The respondents were asked to rate the effect of NILG research on government policy and decision making. The results show a notable disconnect between researchers' internal evaluation and policymakers' external evaluation.

Table 3: Perceived Policy Influence of NILG Research

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
2	Limited / Low influence	2	0	2
3	Moderate influence	2	4	6
4	Positive / Good influence	2	4	6
5	Very strong influence	2	0	2

Responses in Group A varied significantly from 2 (limited influence) to 5 (very strong influence) regarding the institute's own policy influence, suggesting some confusion about their personal policy influence among the group. The scores for influence were more converged in Group B, with 100% rating it as moderate (4) or good (4) but no one rating it very strong. This finding points to an impact of NILG research, albeit a small one, on those who are making decisions very close to the policy table. The respondents who feel stronger influence refer to specific cases of legislations like the Zila Parishad Act 2022, Union Parishad service rules, changes in the Village Court Act and the setting up of model rules. Some experienced a minimal effect due to a lack of dissemination and extension of results beyond the LGD.

Figure 2: Perceived Policy Influence — Group A vs Group B Comparison (n=16)



Note: Ratings are based on a 5-point scale (1 = No influence, 5 = Very strong influence). No respondent selected rating 1.

4.4 Implementation of Research Recommendation

Among the most significant results from the study was that the application of research recommendations was invariably seen as partial, in both groups.

Table 4: Perceived Implementation of NILG Research Recommendations

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
1	Not implemented at all	0	1	1
2	Very limited / Rarely	2	1	3
3	Partially implemented	6	6	12
4	Mostly implemented	0	0	0
5	Almost fully implemented	0	0	0

Interestingly, none of the respondents from either group (researcher or policy maker) felt that NILG research recommendations were mostly or fully implemented. 75% (12/16) reported some implementation. This is a converging finding that is a sign of a systemic research-policy gap. Group A attributed the lapses of the poor performance to poor policy advocacy, lack of formal presentation of findings to the concerned ministries and lack of meaningful stakeholder engagement. Group B highlighted that there is not much institutional priority to research, the presence of competing interests and the impact of political and social factors on which recommendations to act.

4.5 Concrete Examples of Research-Informed Policies

Respondents were asked to cite any particular policy decisions and/or administrative changes that were a result of NILG research. 7/8 (Group A) and 3/8 (Group B) were able to provide specific examples.

Table 5: Awareness of Research-Informed Policies or Decisions

Response	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Total (n=16)
Yes	7	3	10
No / Do not know	1	5	6

Respondents from both groups cited examples such as: the District Council (Zila Parishad) Act 2022 (mentioned by several respondents from both groups); the Union Parishad Employees Service Rules; amendments to the Village Court Act; government supply of bicycles to Gram Police personnel; revision of the Village Court and Union Parishad Manuals; increased financial powers of the Village Courts; upgrading of Deputy Directors of Local Government (DDLGs) to Deputy Secretary rank; and human resource expansion of the Union Parishads. The lower awareness among Group B respondents (only 3 out of 8 were able to cite examples) indicates a huge communication and visibility gap – Policy makers often lack an understanding of the full range of NILG's research contributions.

4.6 Dissemination Channels and Their Effectiveness

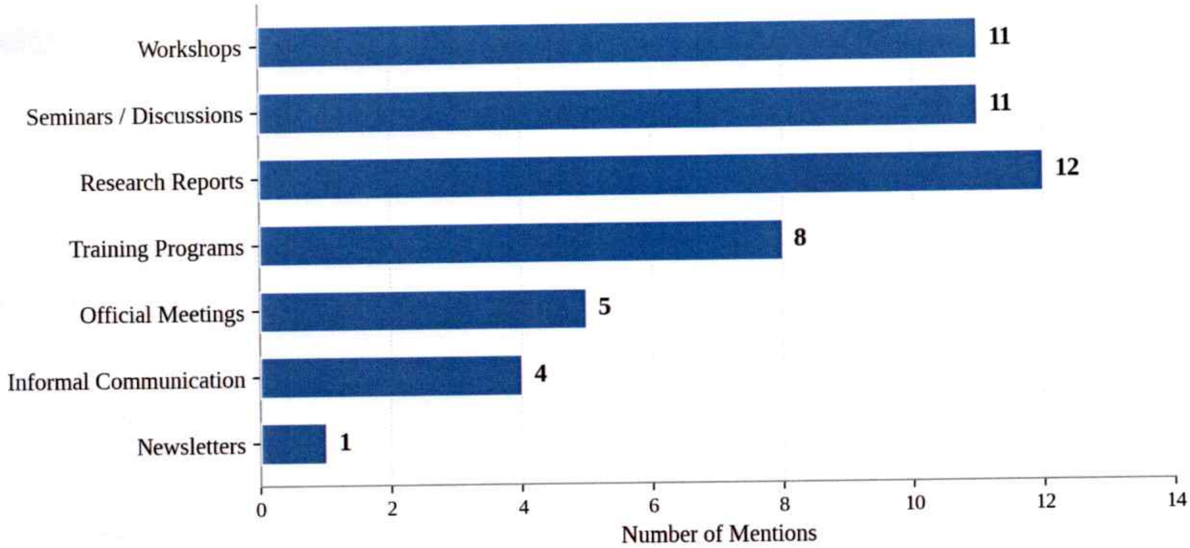
There were a number of ways identified for communicating NILG research results to policy makers. The following table shows an outline of the channels identified and their rated effectiveness.

Table 6: Dissemination Channels and Perceived Effectiveness

Channels	Mentioned by Group A	Mentioned by Group B	Rated Most Effective By
Workshops	7	4	Group A: 4 respondents
Seminars / Discussion meetings	6	5	Group A: 2; Group B: 3
Research Reports	7	5	Group A: 1; Group B: 3
Training Programs	5	3	Group A: 1; Group B: 1
Official Meetings	2	3	Group B: 1
Personal / Informal Communication	3	1	Group A: 1

Workshops and seminars proved to be the most widely used and the most successful means of communication, since they establish a direct connection between researchers and policy makers. Formal products of knowledge were found to be the most successful research reports, Group B users preferring it because of the structure and the recommendations made. Creating training programs is a double-edged sword: it builds capacity and is also an opportunity to introduce policy makers to the findings of research. Some reported that informal communication and newsletters were not as frequently employed but were more effective to get the word out more broadly and quickly. Interestingly, one of the Group B respondents specifically suggested to establish a policy unit or a dedicated wing in the ministry and to create a digital platform to disseminate information faster.

Figure 3: Frequency of Dissemination Channels Mentioned (Both Groups Combined, n=16)



Note: Respondents could mention multiple channels, so totals exceed 16.

4.7 Frequency and Effectiveness of Researcher–Policymaker Communication

Table 7: Frequency of Researcher–Policymaker Communication

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
1	Not at all / Does not occur	1	1	2
2	Very rarely	2	2	4
3	Occasionally	3	2	5
4	Regularly	2	3	5
5	Very frequently	0	0	0

The relationship between researchers and policy makers is usually not institutionalized but rather occurs in an ad hoc manner **(Nutley et al., 2007).** Ten of the sixteen respondents (63%) indicated that communication happens at least occasionally, while five indicated that it happens regularly and two indicated that it does not happen at all. Where communication occurs, questions were raised on the quality of the communication, its follow-up and institutional continuity. A lack of formal arrangements to ensure direct and persistent communication between researchers and policy makers was mentioned by Group B respondents. Communication is mainly undertaken through training programs, workshops, seminars and meetings, which are formal events rather than regular institutional communication.

4.8 Effectiveness of Research–Policy Coordination

Table 8: Perceived Effectiveness of Research–Policy Coordination

Rating	Interpretation	Group A: Researchers (n=8)	Group B: Policymakers (n=8)	Combined (n=16)
1	Not effective at all	3	0	3
2	Less effective	1	1	2
3	Moderately effective	2	4	6
4	Effective	2	3	5
5	Very highly effective	0	0	0

Analytically significant are the differences between the groups on this question. No one from the Group B respondents agreed that coordination was not effective at all, compared to three Group A respondents with direct research experience. Four Group B respondents rated it moderately effective and three rated it effective. The tougher self-evaluation from researchers could be a reflection of their more direct experience of institutional obstacles to feeding research into policy. Some Group A respondents mentioned that research results that are not in the best interest of the policy makers are often not received with the same level of acceptance and welcome, making it even more difficult to ensure meaningful coordination.

4.9 Policymaker Participation in Research

Table 9: Policymaker Participation in Research Topic Selection and Review (Group B, n=8)

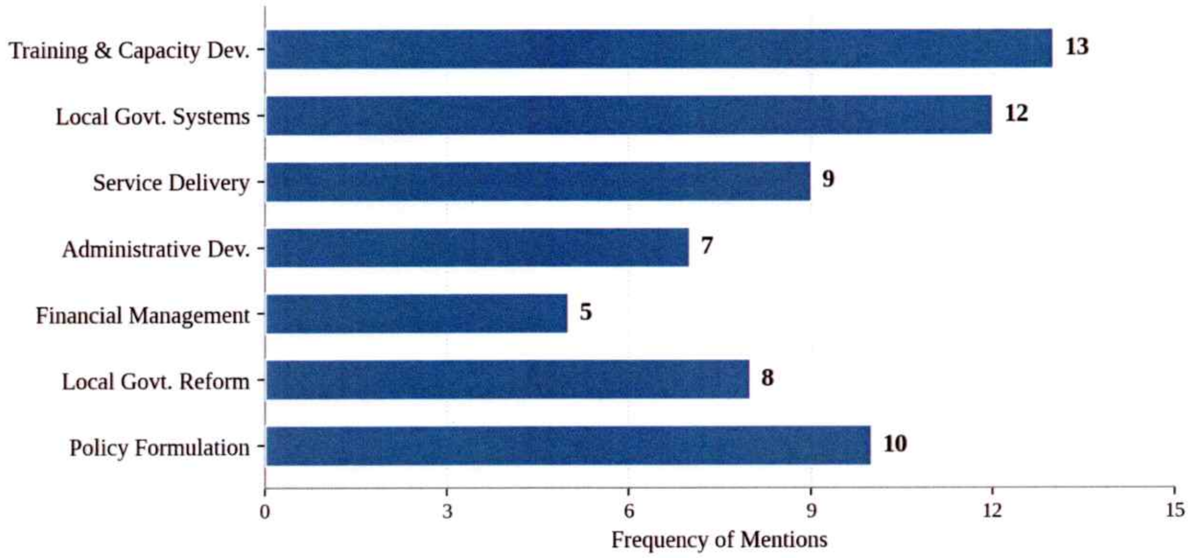
Response	Number of Respondents	Percentage
Yes (consistently)	0	0%
Sometimes	6	75%
No	2	25%

There was no consistency reported by Group B respondents regarding their participation in research topic selection and the review of findings. Six reported occasional involvement, while two reported none. Some of the respondents highlighted the importance of more systematic involvement of policy makers in the design of the research process, which could enhance the relevance, uptake and eventual use of research in governance.

4.10 Key Research Areas Utilized

Both groups came to the same conclusion that the most relevant research areas for policy formulation were training and capacity development, local government systems and service delivery. In addition, administrative development and financial management were highlighted by Group A. Group B also focused on training planning as the research area most frequently used, suggesting that research is present with the policy makers, but the extent to which it is used is greater in capacity development activities.

Figure 4: Research Areas Most Commonly Utilized (Both Groups, Frequency Mentions)



Note: Respondents could mention multiple research areas, so totals exceed 16.

5. Conclusion

5.1 Discussion

This study contributes to and reinforces the existing and growing literature on research–policy nexus in the context of developing countries. Five main themes are identified in the analysis.

5.1.a Partial but Genuine Policy Influence

NILG research has some impact on policy, although not necessarily uniform in nature and extent. There are however, some legislative modification that suggest that at some point, recommendations from research have been made law (Zilla Parishad Act, Village Court Act, Union Parishad service rules, etc.). This is in line with conceptual use model of **Weiss (1979)** that focus on the indirect and time-lagged effects of research on policy. The low awareness of these successes among the Group B respondents is also a finding that implies that even when research is influencing policy, this may not be communicated, recognized or recorded in a way that facilitates the uptake of research into policy at the future.

5.1.b The Dissemination Channel Paradox

Although most respondents found researcher–policymaker communication to be rare, workshops and seminars are regarded as effective means to communicate knowledge. This paradox illustrates a structural contradiction – best channels are least consistently available channels. When needed, workshops do occur, but there is no formalized mechanism in place to ensure their regularity. Research reports are also continually produced, but are not routinely consulted or implemented, in part because they are not produced in policy-friendly formats. The finding aligns with that of **Nutley et al. (2007)** who argued that it was the "constant communication, not one-off dissemination activities" that underpinned effective research uptake.

5.1.c The Implementation Gap

The most surprising finding of this study is that 100% of the respondents from Group A and Group B declared that NILG research recommendations are not mostly or fully being put into practice. Researchers and policy-makers have determined that the verdict of 'partial implementation' may indicate a recognized gap that is not addressed in a systematic manner. Some of these are: absence of formal accountability mechanism for research and policy action; NILG not promoting policies; bureaucratic inertia; policy outweighing evidence-based decision making. It is not too much to say that **Caplan's (1979)** assertion about the role of organizational and political factors in the utilization of research is relevant here.

5.1.d Institutional and Political Barriers

The majority of the Group B respondents include the influence of the political and administrative environment in their list as either significant or very high. Sometimes elected representatives ignore evidence-based recommendations that are in conflict with political commitments or public opinion. The institutionalization of research-informed decision making is further limited by an entrenched hierarchical culture, and administrative complexity. These results are in line with the work of **Rahman (2010)** on the implications of having a centralized administrative system on policy reform in local government in Bangladesh.

5.1.e Bangladesh in Comparative Perspective

These patterns are not exclusive to Bangladesh, but may be more or less strongly present in other developing countries. Reviewing fifty case studies of research–policy relationships in the developing world, **Court and Young (2003)** determined that evidence influences policy primarily in the presence of formal institutional linkages and regular communication. This is confirmed by similar institutes like the National Institute of Rural Development and Panchayati Raj in India has close formal ties with its ministry; the Philippine Institute for Development Studies, Kenya's KIPPRA, are structurally linked to the national planning agency, and KIPPRA was created by statute with a specific mandate to provide evidence-based input to government decision making. These cases do not differ from NILG in terms of quality of research, but because they have institutionalized mechanisms and responsibility for evidence utilization. Like other developing countries, Bangladesh is constrained by policy inertia and political interference, and does not appear to have stronger linkages between research and policy than its peers, further highlighting the need for the institutional changes identified in this research.

5.2 Concluding Remarks

However, this study aimed to address two related questions: How much is NILG research used in policy? How well do the channels for disseminating NILG research to policy makers work? The complexity and sobering picture come from data gathered during 16 Key Informant Interviews with the researcher and policy maker community.

NILG's work is recognized as valuable and has resulted in changes in policy in local government in Bangladesh. But its impact is only partial, uneven and for many decision makers, unseen. Translating research into policy is limited by structural, communicative and political challenges which fuel a knowledge–action gap. Existing channels are appreciated but not properly institutionalized to ensure a steady stream of evidence to feed into policy – workshops, seminars, training and reports.

In overall, NILG has a critical role in the Research-Training-Local Government Triangle in Bangladesh. It needs to be deliberately changed, not just at NILG, but in the governance space, if it can be fully realized as a policy partner to the Local Government Division. The tips listed below will help make that happen.

There are a number of questions that remain to be answered. What will be the concrete benefits over time of NILG-induced reforms on the delivery of local governance? How do the knowledge-action gap issues faced by similar institutes in South and Southeast Asia address them? How much do political economy aspects (bureaucratic incentives, partisan interests and donor priorities) affect what research findings are acted upon? If answered along the lines of longitudinal, and comparative research, these questions could add to the evidence base to strengthen the argument for institutionalizing research for policymaking in the field of local governance in Bangladesh.

6. Recommendations

Recommendations for consideration by NILG, the Local Government Division under the Ministry of Local Government, Rural Development and Co-operatives, based on the findings and discussion, are as follows:

6.1 Establish a Policy Liaison Unit within NILG

A Policy Liaison Unit should be established to develop easy-to-understand, decision-ready policy briefs from research findings. This unit would continue to stay in touch with the LGD, NILG and relevant ministry officials during research studies and ensure that research outputs are regularly shared in ways that are likely to be policy conducive.

6.2 Develop a Digital Knowledge Platform

A digital knowledge management system or an e-platform should be created to store, share, and publish research results of NILG instantly. These can range from dashboards for policy makers, regular e-newsletters and an online library of all NILG research products, to be shared with government officials at every level.

6.3 Institutionalize Researcher–Policymaker Dialogue

Formal arrangements for the interface between researchers and the policymaker should be established, such as regular and standard research-policy dialogue forums which can be organized as a quarterly forum. These sessions should not be one-off workshops, but should create a culture of evidence engagement within the institution.

6.4 Involve Policymakers in Research Design

The research program of NILG should be co-constructed with the Local Government Division, appropriate ministry officials and related concerned that should be demand-driven, relevant to practice and reflect current policy priorities. In addition, there should be a formal involvement of the policymakers in the process of selection of research topics and review of research findings.

6.5 Strengthen Policy Advocacy Capacity

NILG needs to strengthen its policy advocacy skills with training of researchers in policy communication and stakeholder engagement and evidence summaries to various government levels. Research results must be actively communicated to the relevant authorities and not just formally reported.

6.6 Establish an Accountability Mechanism

A formal process for keeping track and publicly reporting on the state of implementation of NILG's research recommendations should be created. This may involve an annual review that is done in partnership between NILG and the LGD to provide transparency and hold institutions accountable for evidence-based policy making.

6.7 Increase Budgetary Allocation for Dissemination

A specific budget should be allocated for research dissemination activities such as publication in peer-reviewed journals, policy workshops, seminars and research outreach to other ministries and government agencies beyond the LGD.

7. Declaration

I decare that this paper contains neither any plagiarized material nor any AI-generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

8. References

Knowledge Translation and Research Utilization

Caplan, N. (1979) 'The two-communities theory and knowledge utilization', *American Behavioral Scientist,* 22(3), pp. 459–470.

Innvaer, S., Vist, G., Trommald, M. and Oxman, A. (2002) 'Health policy-makers' perceptions of their use of evidence: a systematic review', *Journal of Health Services Research & Policy,* 7(4), pp. 239–244.

Lavis, J.N., Robertson, D., Woodside, J.M., McLeod, C.B. and Abelson, J. (2003) 'How can research organizations more effectively transfer research knowledge to decision makers?', *Milbank Quarterly,* 81(2), pp. 221–248.

Lomas, J. (2000) 'Using "linkage and exchange" to move research into policy at a Canadian foundation', *Health Affairs,* 19(3), pp. 236–240.

Mitton, C., Adair, C.E., McKenzie, E., Patten, S.B. and Perry, B.W. (2007) 'Knowledge transfer and exchange: review and synthesis of the literature', *Milbank Quarterly,* 85(4), pp. 729–768.

Nutley, S.M., Walter, I. and Davies, H.T.O. (2003) 'From knowing to doing: a framework for understanding the evidence-into-practice agenda', *Evaluation,* 9(2), pp. 125–148.

Nutley, S., Walter, I. and Davies, H.T.O. (2007) *Using Evidence: How Research Can Inform Public Services.* Bristol: Policy Press.

Weiss, C.H. (1979) 'The many meanings of research utilization', *Public Administration Review,* 39(5), pp. 426–431.

Evidence-Based Policymaking

Brownson, R.C., Chriqui, J.F. and Stamatakis, K.A. (2009) 'Understanding evidence-based public health policy', *American Journal of Public Health,* 99(9), pp. 1576–1583.

Court, J. and Young, J. (2003) *Bridging Research and Policy: Insights from 50 Case Studies.* London: Overseas Development Institute (ODI).

Overseas Development Institute (2004) *Research and Policy in Development: Does Evidence Matter?* ODI Briefing Paper. London: ODI.

Sanderson, I. (2002) 'Evaluation, policy learning and evidence-based policy making', *Public Administration,* 80(1), pp. 1–22. Available at: https://doi.org/10.1111/1467-9299.00292 (Accessed: 14 June 2026).

Bangladesh and South Asia: Local Governance and Policy

Chowdhury, S. and Panday, P.K. (2018) *Strengthening Local Governance in Bangladesh: Reforms, Participation and Accountability.* Cham: Springer. Available at: https://doi.org/10.1007/978-3-319-73284-8 (Accessed: 14 June 2026).

Haque, M.S. (2010) 'Decentralization of governance in Bangladesh: challenges for empowerment of local communities', *Asian Journal of Political Science,* 18(2), pp. 167–184.

Islam, M.S. (2013) 'Local government in Bangladesh: an overview of reforms and challenges', *International Journal of Public Administration,* 36(3), pp. 209–217.

Jahan, R. (1997) *The Dynamics of Policy Implementation in Bangladesh.* Dhaka: University Press Limited.

Panday, P.K. (2011) 'Local government in Bangladesh: towards an effective institution', *Asian Affairs: An American Review,* 38(4), pp. 168–187.

Rahman, S.H. (2010) *Local Governance in Bangladesh: Leading Issues and Major Challenges.* Dhaka: Centre for Policy Dialogue (CPD).

Institutional Capacity, Accountability and Governance

Andrews, M. (2013) *The Limits of Institutional Reform in Development: Changing Rules for Realistic Solutions.* Cambridge: Cambridge University Press.

Grindle, M.S. (2004) 'Good enough governance: poverty reduction and reform in developing countries', *Governance,* 17(4), pp. 525–548.

Research Methodology

Guest, G., Bunce, A. and Johnson, L. (2006) 'How many interviews are enough? An experiment with data saturation and variability', *Field Methods,* 18(1), pp. 59–82.

Institutional Sources

National Institute of Local Government (NILG) (2025) *Annual Report.* Dhaka: NILG.

Annexure

Annexure A: Profile of Key Informant Interview Respondents

Group	Designation	Category	n
A (Researchers)	Joint Director	NILG Researcher	1
A (Researchers)	Deputy Director	NILG Researcher	4
A (Researchers)	Assistant Director	NILG Researcher	1
A (Researchers)	Research Officer	NILG Researcher	2
B (Policymakers)	Director (Joint Secretary)	NILG non-researcher	2
B (Policymakers)	Joint Secretary	Ministry Official	4
B (Policymakers)	Deputy Secretary	Ministry Official	2

Annexure B: Summary of Key Barriers to Research Utilization

Barrier	Frequency mentioned (n=16)	Primary Group
Communication gap between researchers & policymakers	11	Both
Administrative complexity & bureaucratic inertia	9	Both
Political influence & misalignment with political priorities	7	Group B
Limited dissemination & poor presentation of findings	8	Both

Lack of interest in research among decision-makers	5	Group B
Insufficient policy advocacy by NILG	4	Group A
Absence of formal accountability mechanism	3	Both

Annexure C: Key Informant Interview Questionnaire (Summary)

The KII instrument covered the following thematic areas:

Section A: Perceptions of NILG Research (awareness, importance, helpful research types)

Section B: Impact on Policymaking (utilization, policy influence, implementation, concrete examples)

Section C: Communication Channels (dissemination mechanisms, researcher-policymaker interaction, coordination effectiveness, policymaker participation)

Section D: Problems and Limitations (barriers, challenges, political-administrative environment) Section E: Suggestions (recommendations for improving research utilization and dissemination).

Annexture D: Key Informant Interview Questionnaire

Key Informant Interview (KII) Questionnaire

Research Title

Influence of NILG Research on Policymaking in Bangladesh's Local Government Division: Extent and Mechanisms of Knowledge Translation

Respondent Profile

Name	
Designation	
Organization	
Years of Experience	
Date of Interview	

Section A: Awareness of NILG Research

Q1. Are you aware of the research activities conducted by NILG?

☐ Yes ☐ No

If yes, please briefly describe your understanding:

____

____

Q2. How important do you consider NILG research for local government policy and decision-making?

1	Not important at all	
2	Less important	
3	Moderately Important	
4	Important	

5	Very Important	

Reason:

____

____

Q3. Which type of NILG research do you find most useful for policymaking?

- ☐ Local government systems
- ☐ Service delivery
- ☐ Administrative development
- ☐ Training and capacity development
- ☐ Financial management
- ☐ Other: ____________________

Reason:

____

____

Q4. To what extent are NILG research findings or recommendations used in your work?

1	Never used	
2	Very little / Rarely	
3	Occasionally	
4	Regularly	
5	Extensively	

If used, please describe how:

____

____

Section B: Influence of Research on Policymaking

Q5. In your opinion, to what extent does NILG research influence government policy or decision-making?

1	No influence at all	
2	Limited / Low influence	
3	Moderate influence	
4	Positive / Good influence	
5	Very strong influence	

Please describe your experience:

____

____

Q6. How would you rate the level of implementation of NILG research recommendations?

1	Not implemented at all	
2	Very limited / Rarely	
3	Partially implemented	
4	Mostly implemented	
5	Almost fully implemented	

Comments:

____

____

Q7. Can you provide an example of a policy, decision, or programme that was influenced by NILG research?

☐ Yes ☐ No

If yes, please provide an example:

____

____

Q8. In which of the following areas are research findings most commonly applied?

- ☐ Policy formulation
- ☐ Decision-making
- ☐ Administrative development
- ☐ Training planning
- ☐ Local government reform
- ☐ Other: ____________________

Comments:

____

____

Section C: Channels for Disseminating Research to Policymakers

Q9. In your opinion, how are NILG research findings typically conveyed to policymakers?

- ☐ Workshops
- ☐ Seminars or discussion meetings
- ☐ Research reports
- ☐ Official meetings
- ☐ Training programs
- ☐ Personal or informal communication
- ☐ Other: ____________________

Which method is most effective, and why?:

____

____

Q10. How frequently do researchers and policymakers communicate or exchange views?

[redacted]		
1	Not at all / Does not occur	
2	Very rarely	
3	Occasionally	
4	Regularly	
5	Very frequently	

Comments:

Q11. How effective do you consider the current coordination between research and policymaking?

[redacted]		
1	Not effective at all	
2	Less effective	
3	Moderately effective	
4	Effective	
5	Very highly effective	

Comments:

Q12. Do policymakers participate in the selection of research topics or review of findings?

☐ Yes (consistently) ☐ Sometimes ☐ No

Comments:

Section D: Barriers and Limitations

Q13. In your view, what are the main challenges in applying research findings to policymaking?

☐ Political influence

☐ Bureaucratic complexity

☐ Communication gap between researchers and policymakers

☐ Shortage of staff or funding

☐ Lack of interest in research

☐ Other: ____________________

Please elaborate:

Q14. What do you consider the biggest obstacle to implementing research recommendations?

____

____

Q15. To what extent does the political or administrative environment affect the use of research?

[redacted]		
1	No influence	
2	Little influence	
3	Moderate influence	
4	Significant influence	
5	Very strong influence	

Please describe how it affects research use:

____

____

Section E: Recommendations and Opinions

Q16. What measures do you think are needed to increase the use of research in policymaking?

____

____

Q17. What arrangements could help convey research findings to policymakers more quickly and effectively?

____

____

Q18. Please share any additional opinions or suggestions you may have on this topic:

____

____

Informed Consent

I voluntarily agree to participate in this interview. The information I provide will be used solely for research purposes, and the confidentiality of my responses will be maintained.

Respondent's Signature: **Interviewer's Signature**

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO:05

DATE:15.06.2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO:05

DATE: 15.06.2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
    1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: **Md. Mostafizur Rahman**

Roll No. **123**

Title: Food Safety Governance in Bangladesh: Current Risks, Regulatory Bottlenecks, and Strategic Interventions.

Abstract

Food safety is a significant public health and economic concern in Bangladesh, as market expansion regularly surpasses infrastructure development and regulatory enforcement. This paper evaluates Bangladesh's current food safety problems and explores possible strategy frameworks by looking at the perspectives of administrative, scientific, and commercial players. A convergent parallel mixed-methods research design was used to triangulate data across three distinct cohorts: a quantitative survey of government employees (N=30; 21 Male, 9 Female) to assess institutional baselines; a technical Focus Group Discussion (FGD) with agricultural scientists from the Bangladesh Agricultural Research Institute (BARI, N=10); and in-depth targeted interviews (N=10) with retail value-chain actors (5 consumers, 3 small-scale traders, and 2 street food vendors) to gather operational realities at the ground. According to quantitative survey data, just 20% of government employees are especially aware with the Food Safety Act's enforcement methods, while 70% of them have serious worries about the safety of market commodities. Because there is no field-level oversight and the regulatory environment is spread across multiple ministries, farmers frequently triple pesticide residue limits. The expert FGD with BARI scientists attributed these safety gaps to structural faults. Ground-level interviews revealed a stark gap between policy and survival: small traders and street food vendors admit to using chemical enhancers and unsafe block ice, while consumers turn to unreliable domestic washing methods due to a lack of cold-chain infrastructure, a lack of technical training, and a widespread fear of punitive, sudden mobile court fines.

1. Introduction

Food safety is a growing public health concern in Bangladesh, where unsafe food consumption has become a serious threat to human wellbeing. Although food is essential for nutrition and survival, contamination, adulteration, and improper handling can turn food into a major cause of disease. Ensuring safe food requires proper control during production, processing, storage, transportation, and marketing. In Bangladesh, weak monitoring systems, poor hygiene practices, and limited consumer awareness increase the risk of foodborne illnesses. Recent studies show that a significant portion of food items available in markets are unsafe or nutritionally compromised. Therefore, strengthening food safety management is essential for protecting public health and ensuring sustainable development

In Bangladesh, food safety risks exist throughout the entire food supply chain, including farming, harvesting, processing, storage, transportation, wholesale markets, retail shops, and street food vending. Weak enforcement of regulations, poor sanitation, lack of monitoring capacity, and profit-driven adulteration have made unsafe food a common reality for consumers. Many food producers and traders use illegal chemicals, artificial colors, harmful preservatives, and low-quality ingredients to increase shelf life, enhance appearance, or reduce production costs. Such practices expose consumers to serious short-term and long-term health consequences.

Ensuring food safety is closely linked to achieving food security and improving public nutrition. While Bangladesh has made progress in increasing food production, ensuring that food is safe and nutritious remains a major gap. Unsafe food reduces the nutritional value of diets, increases vulnerability to disease, and undermines the health of children, pregnant women, and elderly populations. Therefore, strengthening food safety management is essential for protecting public health, ensuring consumer rights, promoting export potential, and building trust in domestic food markets.

1.0 Background of the Study

Food safety is a fundamental requirement for a healthy society and a stable food system. A nation's ability to provide safe food reflects its public health capacity, governance strength, and economic sustainability. In Bangladesh, food safety has gained attention due to increasing incidents of adulteration, chemical contamination, and outbreaks of foodborne disease. The food system has expanded rapidly over the past few decades due to population growth, urbanization, rising consumer demand, and the growth of food processing industries. While this expansion has improved food availability, it has also introduced new risks due to weak oversight and limited quality control.

Bangladesh has a complex food governance structure where multiple ministries and agencies share responsibilities for food safety. The Ministry of Health and Family Welfare plays an important role in public health and nutrition-related activities. At the same time, other ministries are involved in food production, agricultural practices, trade regulation, local government oversight, consumer rights, and environmental protection. This multi-agency structure creates both opportunities and challenges. Although food safety is a multidisciplinary issue requiring cooperation, the absence of effective coordination often leads to fragmented implementation and overlapping authority.

The National Food Safety Authority was established as a central body to coordinate food safety monitoring and enforcement. However, institutional challenges remain, including limited manpower, insufficient inspection capacity, weak laboratory infrastructure, and lack of consistent monitoring at local levels. As a result, many unsafe practices continue without accountability. Traditional markets, informal vendors, and small-scale producers often operate outside strict regulatory supervision.

Food safety concerns in Bangladesh are also connected to the economic structure of food markets. Many food businesses operate with low investment and minimal technological capacity. Food processing industries are growing, but quality control systems such as hazard analysis, proper labeling, standardized packaging, and cold chain management remain underdeveloped. Furthermore, the informal nature of many food supply chains makes it difficult to track contamination sources or enforce compliance. The National Taskforce on Food Adulteration (NTFS) made by the GoB find out that adulterated foodstuffs each year causes various foodborne illnesses, including diarrhoea, malnutrition and other diseases leading to death of many people in Bangladesh.1 Especially children are more vulnerable than adults as unsafe food is a major cause of child mortality.2

The food safety challenge is not only a health issue but also an economic and developmental concern. Unsafe food reduces productivity by increasing illness-related absenteeism, medical costs, and long-term health burdens. It also threatens export opportunities because international markets require strict quality and safety standards. Thus, improving food safety can contribute significantly to economic growth, public trust, and national development. "In Bangladesh, food safety issues are particularly severe, stemming from inadequate sanitation, poor hygiene practices, extensive food adulteration, and limited monitoring resources" (M. A. Khan et al.

2023; Samad et al. 2023).

1.1 Problem Statement

Food safety remains a severe and persistent challenge in Bangladesh due to widespread contamination, adulteration, and unhygienic practices across the food supply chain. Although Bangladesh has laws, policies, and regulatory institutions designed to protect food quality, unsafe food continues to enter local markets due to weak enforcement and limited monitoring mechanisms. The food system is characterized by poor sanitation, inadequate storage facilities, improper transportation, and insufficient inspection coverage.

One of the most alarming aspects of Bangladesh's food safety problem is deliberate adulteration. Many food traders and producers use harmful chemicals such as industrial dyes, artificial sweeteners, formalin-like preservatives, and low-quality substitutes to increase profit margins. These substances are often added to make food look fresh, appear attractive, or last longer in markets. Such practices expose consumers to toxic substances and create serious health risks.

Foodborne diseases remain common, particularly diarrhea, dysentery, typhoid, cholera, and hepatitis. These diseases disproportionately affect children and vulnerable groups. Additionally, long-term exposure to heavy metals, pesticides, and industrial contaminants may contribute to chronic illnesses such as kidney damage, hormonal disorders, reproductive health complications, and cancer. The burden of these diseases creates pressure on the healthcare system and reduces overall quality of life.

Therefore, Bangladesh urgently needs an integrated and effective food safety system that ensures safe food production, strong regulatory enforcement, improved inspection and laboratory facilities, coordinated governance, and enhanced consumer awareness. Without such improvements, food safety risks will continue to threaten public health and national stability.

1.2 Objectives of the Study

The overall objective of this study is to examine the current food safety situation in Bangladesh by identifying key challenges in food supply chain, analyzing the causes of unsafe food practices, assessing institutional coordination gaps, and evaluating socio-economic and behavioral factors affecting food safety governance and outcomes.

The specific objectives include:

- To examine the existing food safety conditions and identify major challenges across the food supply chain in Bangladesh.
- To analyze the underlying causes of food contamination, adulteration, and unsafe food handling practices.
- To assess the coordination gaps among ministries, regulatory bodies, and stakeholders involved in food safety management.
- To evaluate the influence of consumer awareness, market behavior, and socio-economic factors in shaping food safety outcomes.

1.3 Rationale and Significance of the Study

The significance of this study lies in its potential contribution to improving public health and national development. Food safety is directly linked to the nutritional status and wellbeing of the population. Without safe food, nutritional interventions and food security initiatives cannot achieve their intended outcomes. Bangladesh has made notable progress in food production and poverty reduction, but unsafe food continues to undermine these achievements.

This study highlights how food safety drives public health and national progress. In Bangladesh, unsafe food threatens economic growth and vulnerable populations. This research aims to fill critical knowledge gaps by analyzing health impacts, economic losses, and regulatory strategies to create a healthier, more productive nation.

Here is the breakdown of the study's significance:

Public Health & Vulnerability: Nutritional efforts are undermined by unsafe food. Everyone is harmed, but low-income groups, pregnant women, and children are most at danger.

Human Capital: Malnutrition and stunted childhood development are caused by foodborne infections. Long-term national production is drastically decreased as a result.

Economic Growth: Bangladesh's export reputation is enhanced, local enterprises are supported, and customer trust is strengthened by a safe food supply.

Healthcare Savings: Increased worker productivity and lower national medical expenses are two benefits of improved food safety.

Addressing Research Gaps: Previous studies focus only on specific contaminants. This study provides a complete analysis of health, policy, regulation, and consumer behavior to drive systemic change.

2.0 Literature Review

Drivers of Food Safety Vulnerability

Food safety has emerged as a critical global crisis driven by expanding international trade networks, rapid industrial manufacturing, and climate-induced environmental shifts (World Health Organization [WHO], 2024). In developing nations, these vulnerabilities are severely amplified by systemic socioeconomic factors. In Bangladesh, food safety risks are heavily intensified by widespread poverty, weak regulatory enforcement, inadequate infrastructure, and the dominance of unregulated, informal food markets (Ahmed et al., 2023).

Chemical Contamination and Agricultural Practices

A significant body of research focuses on the pervasive contamination of everyday food products across Bangladesh. Empirical studies indicate that key hazards—such as heavy metals, pesticide residues, and industrial pollutants—frequently infiltrate the agricultural supply chain (Islam & Rahman, 2021). This systemic contamination is driven by unsafe farming practices, unregulated industrial waste disposal, the chronic misuse of agrochemicals, and poor hygiene protocols during processing and distribution (Khan et al., 2022).

Urban Market Adulteration and Consumer Risks

The literature emphasizes that food adulteration is particularly rampant in urban commercial hubs. To artificially enhance visual appeal and maximize profit margins, traders routinely introduce toxic coloring agents into spices, sweets, and beverages (Hassan, 2020). Furthermore, supply chain actors frequently apply hazardous chemical preservatives to fruits and vegetables to unnaturally extend their shelf life and maintain freshness during long-distance transit to urban centers (Ali & Uddin, 2023).

Public Health Implications and Foodborne Illnesses

Studies consistently link inadequate water, sanitation, and hygiene (WASH) infrastructure to high rates of foodborne diseases across the country. The high prevalence of illnesses such as diarrhea, dysentery, and typhoid is directly attributed to unhygienic practices among street food vendors, contaminated drinking water, and poor personal hygiene of food handlers (Chowdhury & Saha, 2021). This microbial risk is further worsened by improper food storage temperatures, exposure to environmental dust, and the reuse of contaminated utensils (Begum et al., 2024).

Institutional, Regulatory, and Governance Deficiencies

A critical theme in the current literature is the failure of governance and institutional frameworks. While comprehensive food safety regulations exist on paper, their field enforcement remains highly ineffective. Researchers attribute this implementation gap to a severe lack of skilled inspection personnel, deficient laboratory testing capacities, and fragmented organizational coordination (Alam & Hossain, 2022). The presence of multiple regulatory authorities with overlapping jurisdictions creates systemic confusion, preventing consistent enforcement of national food standards (Sarker,

3.0 Methodology

3.1 Study Design and Study Area

This proposed study examines food safety issues and potential solutions in Bangladesh using a qualitative methodology. Because elements like customer views, market structures, and social behavior necessitate a detailed understanding, in-depth study is required. The study covers both rural (village markets, processing facilities) and urban (city markets, supermarkets, street food) settings.

Key Methodological Components

Study Approach: In order to capture the systemic and human elements influencing food safety, qualitative research is given precedence over solely numerical measurement.

Urban Focus: Street food vendors, restaurants, supermarkets, and major city markets.

Rural Focus: small-scale food processing facilities, local marketplaces, and agricultural production zones. The selection of participants is based on the existence of important food markets, food-related businesses, and pertinent stakeholders.

3.2 Data Collection Methods

Data collected from both primary and secondary sources.

Primary Data Collection: Semi-structured interviews, focus groups, and questionnaire surveys were used to gather primary data. Professional insights on regulatory difficulties, enforcement problems, and potential improvements were gathered through interviews. surveys designed to get organized viewpoints from a larger number of stakeholders.

Consumers, street food sellers, and small-scale dealers participated in focus groups to learn about their perceptions of food safety, awareness levels, and purchase habits.

Primary data collection was carried out using three distinct, field-tested instruments:

Semi-Structured Questionnaires: Used for the survey sample (\(N=30\)) to collect data on public safety concerns, levels of regulatory awareness, and support for proposed strategies.

FGD Guideline: Structured around thematic areas to encourage group interaction regarding transit spoilage, chemical use, and enforcement issues.

In-Depth Interview (IDI) Guides: Custom-tailored for each stakeholder group. These guides explored consumer anxieties, small trader sourcing vulnerabilities, and vendor access to clean infrastructure.

Secondary Data Collection:

Secondary data gathered from books, newspapers, NGO reports, institutional publications, government reports, journal articles, and policy documents. These resources had documented instances of contamination and adulteration, historical policy development, and contextual information on food safety regulations.

3.3 Data Analysis

Collected data analyzed using thematic analysis. The interviews and focus group discussions transcribed and categorized into themes such as adulteration practices, hygiene conditions, regulatory enforcement, institutional coordination, consumer awareness, and policy gaps.

The study compared stakeholder responses to identify patterns, common concerns, and conflicting viewpoints. Key findings had been organized to address the research objectives. The analysis emphasized how systemic weaknesses contribute to food safety failures and what strategies stakeholders believe are most effective.

Data Analysis Matrix

The collected data was organized, cleaned, and analyzed using a parallel integration approach:

Research Method	Core Analytical Focus	Data Processing Method
Survey ((N=30\))	Descriptors, baseline percentages, and gender-disaggregated trends.	Descriptive Statistical Analysis (Counts and Percentages)
FGD (10 Pax)	Shared community norms, system failures, and collective ideas.	Thematic Content Analysis (Typologies)
Interviews ((N=10\))	Individual survival choices, compliance barriers, and specific micro-behaviors.	Phenomenological Narrative Analysis (Direct Quotes)

3.4 Ethical Considerations

Ethical standards were strictly maintained throughout the study. Participation had been voluntary, and respondents had been informed about the purpose of the research. Consent had been obtained before interviews and focus group discussions. Personal identities of participants had remained confidential, and collected information had been used only for academic purposes. No sensitive personal data had been disclosed. All participants provided informed verbal consent prior to data collection. To protect local businesses and individuals from regulatory backlash or social stigma, strict anonymity was maintained throughout the study. All participant identifiers were replaced with functional labels.

3.5 Limitations of the Study

a) This study had a number of shortcomings. The absence of accurate and current data in some places, particularly with regard to unregistered food companies and informal markets, has been a significant drawback. Fearing legal repercussions or reputational harm, certain stakeholders had been reluctant to give truthful information. The geographic scope of the fieldwork may have been restricted by financial and time restrictions. The possibility that qualitative results did not statistically represent the full population was another drawback.

b) Small Sample Size and Limited Generalizability

This study's quantitative component used a small sample size of thirty government workers. The results cannot be statistically extrapolated to Bangladesh's full civil service or administrative apparatus due to the survey's 30 participant limit. Rather from being a definitive national index, the quantitative data primarily functions as an indicator of institutional patterns and baseline perspectives within a particular localized context.

c) Geographic and Spatial Constraints

The data collection process was confined to a particular urban/peri-urban hub. As a result, localized market pressures and particular micro-environments are reflected in the ground-level realities recorded during the interviews with the two street food vendors and three small-scale traders. The unique logistical, environmental, and infrastructural difficulties experienced by food value-chain participants operating in. Bangladesh's deep coastal regions or remote rural limits may not be adequately captured by our findings. Potential Social Desirability and Recall Bias

Given the sensitive nature of food adulteration and regulatory non-compliance, qualitative data collection was susceptible to social desirability bias.

>> Street Vendors and Traders: Despite strict anonymity protocols, retail actors may have underreported their use of unauthorized food dyes, chemical ripeners, or unsafe storage practices out of fear of legal exposure or social stigma.

>> Government Employees: Surveyed officials may have overstated their awareness of national food safety protocols to align with professional expectations.

>> BARI Scientists: Academic and institutional affiliations among the FGD participants may have led to guarded responses regarding governmental policy gaps or enforcement failures.

d) Sampling Strategy and Participant Profile

Participants were selected using purposive sampling to ensure that respondents possessed direct professional or practical experience with the study topic. The total sample comprised three distinct cohorts:

<u>Quantitative Survey Sample ((N=30) Government Employees:</u> A cross-sectional survey was administered to 30 government officials to establish institutional and administrative baselines regarding regulatory awareness and policy feasibility. The cohort consisted of 21 Male (70%) and 9 Female (30%) participants.

Focus Group Discussion (FGD) Sample ((N=10\) BARI Scientists: One specialized FGD session was conducted with 10 agricultural and food scientists from the Bangladesh Agricultural Research Institute (BARI). This panel provided expert technical analysis regarding post-harvest handling, chemical application thresholds, and infrastructure bottlenecks.

In-Depth Targeted Interviews ((N=10\) Value-Chain Actors): Ten targeted interviews were conducted to capture granular, ground-level realities across the retail food supply chain. This sample included:

>> **5 Consumers:** Selected to provide insights into household risks, purchasing anxieties, and domestic mitigation tactics.

>> **3 Small-Scale Traders:** Selected to highlight retail constraints, wholesale sourcing risks, and local market infrastructure challenges.

>> **2 Street Food Vendors:** Selected to capture high-vulnerability points, informal compliance costs, and daily operational hazards.

Survey Baseline ((N=30) Govt Employees: Quantitative data shows that institutional awareness does not fully eliminate food safety anxieties. Among the 30 government employees surveyed, 70% ((n=21) reported a profound lack of confidence in the safety of loose market commodities. This view was shared by 66% of the male officials ((n=14/21)) and 77% of the female officials ((n=7/9)), indicating that even administrative professionals harbor high distrust toward general market compliance.

FGD Insights (10 BARI Scientists): During the FGD, the 10 BARI scientists provided critical technical context for this distrust. They noted that field-level pesticide application rates among farmers frequently double safe thresholds due to a lack of knowledge regarding maximum residue limits (MRLs). One scientist explained, *"The problem is structural; farmers apply chemicals close to harvest times to prevent insect damage during transit, bypassing critical pre-harvest intervals entirely."*

Targeted Interview Insights ((N=10)): At the retail level, this macro-level dynamic causes a serious divergence. While the two street food sellers acknowledged using illegal colorings to maintain food visually appealing in outdoor settings, the five buyers who were interviewed indicated intense fear about feeding their family hazardous chemicals. Additionally, the three small-scale vendors disclosed that they lack a scientific method to confirm whether the raw material is pre-contaminated because they purchase straight from unofficial wholesale middlemen.

Understanding of the Food Safety Act

Survey Baseline ((N=30\) Govt Employees)**:** Interestingly, despite their professional background, specific legal literacy regarding food safety mandates remains concentrated. Out of the 30 government employees surveyed, **only (20%\) ((n=6\))** demonstrated basic familiarity with the specific enforcement clauses of the Food Safety Act or the operational boundaries of the Bangladesh Food Safety Authority (BFSA). This breakdown included **(19%\) of males (\(n=4/21\))** and **(22%\) of females (n=2/9)**

FGD Insights (10 BARI Scientists)**:** The ten BARI experts blamed Bangladesh's fragmented food laws for this inadequate institutional literacy. They underlined that the enforcement of food safety is dispersed among several ministries, resulting in a lack of coordination that perplexes the public and administrative officers alike.

Targeted Interview Insights (\(N=10\))**:** Compliance at the grassroots level is harmed by this institutional uncertainty. The two street food vendors and three small-scale dealers who were interviewed said they had never received official training from any government agency. Visiting regulatory inspectors are seen by them as financial threats that prioritize abrupt fines over teaching safe food handling practices.

4.0 Results/ Findings

It is anticipated that the investigation would reveal that structural and behavioral problems are at the core of Bangladesh's food safety difficulties. One significant discovery would be that food adulteration is an organized market practice motivated by commercial incentives, lax enforcement, and consumer demand for aesthetically pleasing goods rather than just an isolated crime.

The investigation might also show that contamination happens in stages. Toxic materials may be introduced into crops during the production stage by overuse of pesticides, contaminated irrigation water, and unsafe fertilizers. Food quality may be further diminished during the processing step by unhygienic facilities, subpar packaging, and the introduction of dangerous additives. Microbial contamination may rise during storage and transit due to insufficient cold chain systems and exposure to dust, insects, and rodents.

It is anticipated that institutional flaws would become a major obstacle. According to the survey, regulatory bodies struggle with a lack of contemporary laboratory support, inadequate staffing, inadequate training, and inadequate monitoring methods. The efficacy of enforcement may also be diminished by political pressure and corruption.

It is also anticipated that the study would show a high correlation between infrastructure and sanitation and food safety. Food contamination is largely caused by unsanitary market conditions, inadequate waste management, and a shortage of clean water. Lack of access to clean water, storage facilities, and appropriate training can make it difficult for street food sellers to maintain sanitation.

Quantitative survey data revealed that 70% of government employees harbor deep anxieties regarding market commodity safety, yet only 20% demonstrate specific familiarity with the enforcement mechanisms of the Food Safety Act. The expert FGD with BARI scientists traced these safety gaps to structural failures, noting that farmers frequently double pesticide residue limits due to absent field-level oversight and a fragmented regulatory landscape split across multiple ministries. Ground-level interviews exposed a sharp disconnect between policy and survival: while consumers resort to unverified domestic washing methods, small traders and street food vendors admit to using chemical enhancers and unsafe block ice due to absent cold-chain infrastructure, lack of technical training, and a pervasive fear of punitive, sudden mobile court fines.

Table 1: Consumer Anxiety and Market Confidence Metrics

This matrix tracks the level of confidence government officials have when purchasing loose, unpackaged commodities from traditional open-air kitchen markets.

Survey Metric Question	**Response**	**Total Sample (\(N=30\))**	**Male Cohort (\(n=21\))**	**Female Cohort (\(n=9\))**
Do you feel confident that loose food items (fish, fruits, vegetables) in traditional markets are safe from chemical contamination?	Yes	3 (10%)	2 (10%)	1 (11%)
	No (Anxious)	**21 (70%)**	**14 (66%)**	**7 (77%)**
	Neutral	6 (20%)	5 (24%)	1 (11%)
Have you regularly purchased perishable items (dairy/fish) that showed early signs of bacterial spoilage?	**Yes**	**24 (80%)**	**17 (81%)**	**7 (77%)**
	No	4 (13%)	3 (14%)	1 (11%)
	Unsure	2 (7%)	1 (5%)	1 (11%)

Table 2: Regulatory Literacy and Legal Awareness Gaps

This summary tracks participants' specific familiarity with the Bangladesh Food Safety Authority (BFSA) mandates and the Food Safety Act.

Survey Metric Question	Response	Total Sample (\(N=30\))	Male Cohort (\(n=21\))	Female Cohort (\(n=9\))
Can you correctly identify the primary regulatory body or specific clauses inside the Food Safety Act?	Yes (Aware)	6 (20%)	4 (19%)	2 (22%)
	No (Unaware)	20 (67%)	14 (67%)	6 (66%)
	Vaguely Aware	4 (13%)	3 (14%)	1 (12%)

Table 3: Public Support for Strategic Reforms

This matrix evaluates participant feedback regarding a shift from punitive mobile court drives to educational or decentralized verification models.

Strategic Option Evaluated	Response	Total Sample (\(N=30\))	Male Cohort (\(n=21\))	Female Cohort (\(n=9\))
Should enforcement switch from sudden cash fines to structured business hygiene training programs?	Agree	25 (83%)	17 (81%)	8 (89%)
	Disagree	3 (10%)	2 (10%)	1 (11%)
	Neutral	2 (7%)	2 (9%)	0 (0%)
Would you actively utilize rapid, low-cost testing booths if deployed directly at kitchen market entrances?	Agree	27 (90%)	18 (86%)	9 (100%)
	Disagree	1 (3%)	1 (5%)	0 (0%)
	Neutral	2 (7%)	2 (9%)	0 (0%)

Key Takeaways for Integrating These Tables:

The Gender Gap in Testing: Note that **100% of the female respondents** ((n=9/9\)) supported the deployment of market rapid-testing booths (Table 4). Use this specific detail in your discussion to explain how women, who predominantly handle household meal preparation in Bangladesh, carry a higher daily burden regarding food safety choices.

The Literacy Crisis: Highlight Table 3 in your results to prove your thesis statement: even among educated government workers, **only 20%** understand the state's own food safety laws.

The Alignment with Global Sustainable Development Goals (SDGs)

The food safety crisis in Bangladesh directly impedes the country's progress toward achieving United Nations Sustainable Development Goal 2 (Zero Hunger) and Goal 3 (Good Health and Well-being) by 2030. Integrating these frameworks reveals that food security cannot be divorced from food safety.

Caloric Volume ≠ Nutritional Quality

[SDG 2]	[SDG 3]
Zero Hunger	Good Health & Well-being
Target 2.1 & 2.2	Target 3.4 & 3.9
Safe, nutritious food	Reduce non-communicable diseases
End all forms of malnutrition	Eliminate chemical contamination

Implication for SDG 2: Zero Hunger

While Bangladesh has made monumental strides in reducing absolute hunger by volume, it falls short on **SDG Target 2.1** (ensuring access to safe, nutritious, and sufficient food) and **Target 2.2** (ending all forms of malnutrition).

The Safety-Nutrition Paradox: Food contaminated with microbial pathogens impairs human nutrient absorption. The 80% fecal contamination rate found in urban street foods triggers chronic environmental enteropathy in children.

Fueling Malnutrition: Even if a child consumes enough calories, persistent foodborne diarrheal illnesses prevent the body from absorbing micro-nutrients. This directly sustains the country's high baseline rates of childhood stunting and wasting, neutralizing agricultural development gains.

Implication for SDG 3: Good Health and Well-being

The findings present an acute bottleneck for **SDG Target 3.4** (reducing premature mortality from non-communicable diseases) and **Target 3.9** (substantially reducing deaths and illnesses from hazardous chemicals and contamination).

The Chemical Burden: The widespread, systemic use of heavy metals, textile dyes, and unauthorized pesticides shifts Bangladesh's epidemiological burden from infectious diseases to chronic, non-communicable diseases (NCDs).

Systemic Health Failures: Chronic ingestion of aflatoxins in staple grains and lead chromate in spices directly correlates with the national surge in liver carcinomas, chronic kidney disease (CKD), and cardiovascular failures.

Without a radical shift toward a preventive food safety model, the economic burden of treating these preventable NCDs will continue to overwhelm Bangladesh's public healthcare infrastructure, stalling progress toward universal health coverage.

5.0 Conclusion

In Bangladesh, food safety is a complicated and pressing issue that has an impact on nutrition, public health, and economic growth. The pervasiveness of adulteration, contamination, and unsanitary practices continues to endanger consumer well-being despite advancements in food production and market expansion. The situation is made worse by lax enforcement, inadequate agency collaboration, a lack of laboratory capacity, and low public awareness.

The purpose of this suggested study is to examine Bangladesh's current food safety situation and pinpoint the main obstacles to efficient food safety governance. The study will offer workable and long-lasting solutions to improve food safety systems by examining market trends, institutional flaws, and stakeholder viewpoints. In addition to being a health necessity, ensuring safe food is a national duty that promotes long-term growth, social welfare, and economic advancement

Future scholarly and policy-oriented research should concentrate on the following key areas in light of the methodological limitations and empirical gaps found in this study:

Large-Scale, Regionally Diverse Quantitative Assessments

To capture seasonal changes in food contamination, future research in Bangladesh must employ extensive national surveys in several locations and gather data during both the monsoon and dry seasons.

Empirical Integration of Socio-Behavioral and Laboratory Data

- Future study must combine real-time microbiological and chemical testing of market produce with socioeconomic trader interviews to pinpoint precise contamination hotspots.

Cost-Benefit Analysis of Informal Cold-Chain Alternatives

Future research should focus on:

- Solar-powered cold rooms: Consider the initial expenses and the decrease in spoilage at nearby marketplaces.
- Insulated transport: Examine the financial benefits of maintaining product coolness during long-distance shipping.
- Water purification: Analyze the financial and health advantages of decentralized hubs.
- **Longitudinal Impact Evaluations of Educational Enforcement Models**

As Bangladesh begins to pilot supportive regulatory frameworks, empirical tracking is necessary to measure their success against traditional punitive mobile courts. Future research should focus on

- Evaluate pilot programs that deploy visual hygiene grading systems (e.g., traffic-light stickers) or peer-to-peer vendor training.
- Tracking market hygiene scores, compliance levels, and vendor revenues over time will provide the data needed to design scalable, non-punitive food safety policies across South Asia.

6. Recommendations

The study comes to the conclusion that Bangladesh's predominantly informal food sector does not respond well to top-down, punitive enforcement. The strategy framework needs to shift toward an educational paradigm in order to ensure sustainable farm-to-plate security. Investing in localized micro-infrastructure (potable water and subsidized food-grade ice), centralizing regulatory oversight under a single dashboard headed by the Bangladesh Food Safety Authority (BFSA), deploying decentralized rapid-testing units at kitchen market entrances, and switching mobile courts from immediate financial penalties to ongoing hygiene training are some of the policy recommendations.

6.1 Policy Recommendations

To transform these findings into actionable systemic reforms, the following targeted policy actions are recommended for the Government of Bangladesh, municipal corporations, and development partners:

1. Transition to an Educational and Supportive Enforcement Framework

- Transition the primary mandate of market inspectors from instantaneous economic punishment to continuous compliance training.
- A transparent "Traffic-Light" visual hygiene grading scheme (green, yellow, and red stickers) that is publicly posted at food stands and small retail establishments should take the role of arbitrary spot fines. Instead of incurring immediate financial penalties, vendors who receive a yellow or red score should be given a mandated 30-day grace period to modernize their facilities and finish a free municipal food-handling course.

2. Decentralize Verification via Community Testing Hubs

- Shift chemical and biological verification out of centralized Dhaka testing laboratories and place it directly into regional marketplaces to empower buyers and sellers.
- _Set up rapid-testing stations at the gates of significant regional cooking markets and deploy mobile laboratory vans. By enabling customers to perform real-time checks on high-risk goods (including fish, dairy, and fruits), bad actors can be gradually eliminated through consumer choice.

3. Build Municipal Micro-Infrastructure for Public Markets

- Resolve the environment-driven hazards that force street vendors and small traders into unhygienic practices by providing basic public utilities.
- In public markets, municipal corporations are required to construct subsidized food-grade ice dispensing facilities and centralized clean water distribution hubs. The primary sources of biological pathogen contamination in street-vended foods and retail seafood are eliminated by providing inexpensive access to safe ice and drinkable water.

4. Establish a Unified Regulatory Coordination Dashboard

- Address the administrative confusion caused by overlapping inspector jurisdictions, including municipal corporations, the BSTI, and mobile courts.
- Give the Bangladesh Food Safety Authority (BFSA) the authority to serve as the central point of coordination for all food inspections. A common digital dashboard should be used to track all market drives, testing metrics, and citations.

7. Declaration: I declared that this paper contains neither any plagiarized material nor any AI generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability.

References

1. National Taskforce on Food Adulteration, "Bangladesh Country Paper" (paper presented at the FAO/WHO Regional Conference on Food Adulteration for Asia and Pacific, Seremban, Malaysia, 24–27 May 2004), 2
2. "The State of the World's Children 2008: Child Survival," United Nations International Children'
3. Ali, M. Q, (1984). Some Aspects of Consumer Protection in Bangladesh, The Dhaka University Studies, Part C, 111
4. Ali A. N. (2013), Application of responsive regulation in the food safety regulations of Bangladesh. Journal of South Asian Studies, 1(9), 2-10.
5. Agency for Toxic Substances and Disease Registry. (1992). Toxicological profile for bromomethane. Atlanta: U.S. Public Health Service, U.S. Department of Health and Human Services.
6. Bhatttacharya, P., Chatterjee, D. & Jacks, G. (1997) Occurrence of arsenic contaminated groundwater in alluvial aquifers from Delta Plains, Eastern India: Option for safe drinking water supply. International Journal of Water Resources Development, 13, 79-92.
7. Baffes, J., & Gautam, M. (2001): Assessing the sustainability of rice production growth in Bangladesh. Food Policy, Journal of Food Survey, 26 (1) 515–542.
8. Begum, M. E. A.; Haese, L.D. (2010): Demand and supply situations for major crops and food items in Bangladesh. Journal of Bangladesh Agricultural University, 8(1): 91-102
9. Bangladesh Economic Review (2013), Ministry of Finance, Retrieved November 4, 2013 from www.mof.gov.bd./bangladesh economic review/2013.
10. Bangladesh Economic Review (2011), Ministry of Finance, Retrieved November 4, 2013 from www.mof.gov.bd./bangladesh economic review/2011.
11. Baride , I., and Talukder (2006) Food adulteration Management, pp.44-45.
12. Bhuiyan et al, (2008) "Screening of Organochlorine Insecticides (DDT and Heptachlor) in Dry Fish Available in Bangladesh," Bangladesh Journal of Pharmacology 3: 46-47.
13. Bhuiyan Md Nurul Huda et al. (2009), "Organochlorine Insecticides (DDT and Heptachlor) in Dry Fish: Traditional Washing and Cooking Effect on Dietary Intake," Bangladesh Journal of Pharmacology 4: 46-47.
14. World Health Organization (1993), Bulletin of the World Health Organization, "Contaminated Weaning Food: A Major Risk Factor for Diarrhoea and Associated

Malnutrition,"

15. Clifton, & J.C. (2007) Mercury exposure and public health. Pediatric Clinics of North America 54 (2): 237–269.

Annexure

Statistical Summary of Survey Results (\(N=30\))

The tables below provide the complete statistical breakdown of the quantitative data collected from the cross-sectional survey of **30 government employees** in Bangladesh (21 Male, 9 Female). These statistics serve as the baseline data referenced throughout the findings and discussion chapters.

Table 1: Demographic Profile of the Survey Sample

Characteristic	Category	Sample Count (\(n\))	Percentage (%)
Total Sample Size (\(N\))	All Respondents	30	100%
Gender	Male	21	70%
	Female	9	30%
Employment Sector	Administrative / Civil Service	18	60%
	Technical / Institutional Support	12	40%

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO:05

DATE:15.06.2026

Marks Obtained

Code No. ....

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: Research for Governance

MODULE NO:05
DATE: 15.06.2026

Instruction to be followed

(Please read carefully)

1. Please write your Name, Roll No etc. at the specified space.
2. Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.
1. Put tick (✓) marks on Evaluation method and Institute's Name.

Name: **Feroj Al Mamoon**

Roll No. **124**

Institutional Capacity Assessment of Women's Chambers of Commerce and Industries in Bangladesh: Implications for Women's Entrepreneurship Development

Abstract

Bangladesh has 23 government-approved Women's Chambers of Commerce and Industry (WCCIs) that promote women's entrepreneurship through training, market linkages, policy advocacy, and access to finance. Despite their existence since 2001, perhaps no systematic study has assessed their institutional capacity to effectively fulfill these functions. This study addresses that gap. The research assessed the institutional capacity of WCCIs across three dimensions: human resource capacity, financial sustainability, and institutional challenges & opportunities. A deductive qualitative approach was used. Ten Key Informant Interviews were conducted with the Presidents or Chairpersons of women's chambers across six administrative divisions of Bangladesh, covering metropolitan, district, hill, and haor settings. The findings show that most chambers operate with two or fewer paid staff, depend on a fragile combination of nominal member fees and intermittent government project support, and concentrate their services on training mostly rather than market linkage or policy advocacy. Member fees vary across chambers, yet fee collection is weak everywhere. Only two of the ten chambers reported active policy advocacy. A continuous low-capacity cycle was mentioned: low fees produce low capacity, which produces low services, which reduces willingness to pay. The study recommends a comprehensive capacity-building framework for women's chambers, reform of access-to-finance regulations, infrastructure support, and stronger inter-chamber collaboration. Strengthening WCCIs is essential if Bangladesh is to translate its women's entrepreneurship policy into outcomes for women on the ground.

1.0 Introduction

1.1 Background

Bangladesh has achieved significant economic growth over recent decades. Women's economic participation and entrepreneurship are central to this socio-economic development. However, key indices reveal a notable gap. Women own and manage only about 7% of all economic establishments in the country (Afrin et al., 2024; Hoque and Islam, 2022). Less than 10% of all entrepreneurs in Bangladesh are women (SME Foundation, 2019, as cited in Hossain et al., 2026).

To promote women's participation in entrepreneurship and economic activities, Bangladesh has established specialized institutional mechanisms dedicated to supporting women entrepreneurs. The Bangladesh Women Chamber of Commerce and Industry (BWCCI) was the first such organization, and its establishment paved the way for the creation of similar institutions across the country. Currently, 23 government-approved Women's Chambers of Commerce and Industry (WCCIs) operate under the Ministry of Commerce (Ministry of Commerce, 2026). These chambers are mandated to facilitate women's entrepreneurial development through capacity-building initiatives, market linkages, policy advocacy, and improved access to financial services.The policy environment for women's entrepreneurship has also evolved in parallel.

Bangladesh Bank has issued repeated directives requiring scheduled banks to lend at concessional rates to women-owned SMEs, and the SME Foundation has expanded its training and grant operations to specifically include women entrepreneurs. The Ministry of Commerce's BRCP-1 project represents the most direct institutional support currently available to women's chambers. However, this policy infrastructure is only as effective as the chambers expected to operationalise it. If the chambers themselves are weak, the policy framework cannot translate into outcomes for women entrepreneurs on the ground. This study therefore examines the institutional capacity of women's chambers as a critical missing link between national policy intent and grassroots delivery.

1.2 Problem Statement

The existence of women's chambers does not necessarily guarantee their effectiveness in supporting women entrepreneurs. In Bangladesh, many women's chambers face significant institutional and organizational challenges, including limited financial resources, inadequate staffing, and a heavy reliance on donor- or project-based funding. Furthermore, member engagement remains a persistent concern, members often question the value of membership and are reluctant to pay regular fees. Many chambers have become training providers mainly to generate income, rather than strategic membership-driven bodies.

These constraints limit the capacity of women's chambers to effectively fulfill their mandates and contribute to the broader entrepreneurial ecosystem. Existing studies highlight the importance of institutional support for women entrepreneurs while also revealing persistent structural barriers. For example, Sobhan and Hassan (2024) show that both formal and informal institutional barriers continue to restrict female entrepreneurs in Bangladesh. Nahar et al. (2025) find that networks, including chambers of commerce, are often embedded in privileged urban structures and exclude women outside major cities. Hossain et al. (2026) demonstrate that business associations are key institutional shapers in the women's entrepreneurship ecosystem, but this role requires adequate organisational capacity. Despite the growing importance of women's chambers, no systematic study has assessed whether these organizations possess the capacity required to effectively perform their functions. This study seeks to address that important research gap.

1.2 Objectives

Overall Objective: To assess the institutional capacity of government-approved Women's Chambers of Commerce and Industries in Bangladesh.

Specific Objectives:

1. To examine the human resource capacity of Women's Chambers of Commerce and Industries in Bangladesh.
2. To analyse the financial sustainability of these chambers, including their sources of revenue and funding mechanisms.
3. To identify the major institutional challenges and opportunities affecting the operational capacity of these chambers.

1.3 Justification and Rationale

This study is important for three reasons. First, women's chambers are a dedicated institutional vehicle for women's economic inclusion and the promotion of women's entrepreneurship. Chambers need to be effective to support this goal. Second, there is proven potential for improvement: CIPE's (2023) investment in BWCCI produced visible results - it grew its dues-paying membership, improved member services, and became a model for other South Asian women's chambers. Scaling such reform requires knowing where Bangladesh's women's chambers stand today. Third, the existing literature has a direct gap. Jahed et al. (2011) map support services for women entrepreneurs; Hossain et al. (2026) explain collective institutional shaping. Neither study assesses chamber capacity directly. This study fills that gap with original empirical evidence drawn from across Bangladesh's geographic and institutional diversity.

2.0 Literature Review

2.1 International perspectives

The international literature establishes that the institutional environment is a primary determinant of women's entrepreneurial outcomes. Brush, de Bruin and Welter (2009), in a seminal contribution, developed a gender-aware framework arguing that women's enterprise activities are shaped by household structures, social networks, and institutional settings. Their framework explicitly positions business associations as critical intermediaries between individual women entrepreneurs and the broader policy and market environment. Minniti and Naudé (2010), in a cross-country analysis, demonstrated that women face systematic structural barriers to growth that policy and institutional support must address directly. The International Finance Corporation (2017) quantified a substantial finance gap for women-owned SMEs in emerging markets, attributing it to collateral requirements, gender bias in lending, and weak intermediary institutions to advocate for women-owned enterprises. The implication of these international studies is consistent: where women's business associations are organisationally strong, they amplify the impact of national policy; where they are weak, even progressive policy frameworks struggle to translate into outcomes for women on the ground.

2.2 Regional perspectives: South Asia

South Asian evidence demonstrates that women's chambers can be transformative when adequately resourced. Agrawal, Pandey and Bhardwaj (2023), drawing on interviews with 31 women entrepreneurs across India, Nepal, Sri Lanka, Bangladesh, and Pakistan, used interpretive structural modelling to map a hierarchy of barriers. They identified weak social capital, limited professional networks, and entrenched gender stereotypes as foundational constraints operating consistently across the region.

In Pakistan, Habiba et al. (2025) examined women SME entrepreneurs and identified ten major barrier categories, with weak macroeconomic environments, limited social networking, and lack of entrepreneurial skills ranking among the most significant. Sohail (2022) documented the role of the SAARC Chamber of Women Entrepreneurs in convening cross-border workshops, though national-level outreach has remained uneven across member states.

In Sri Lanka, the Women's Chamber of Industry and Commerce (WCIC) has emerged as a regional reference point. Through its sustained partnership with the Center for International Private Enterprise, WCIC progressed from foundational governance support to active policy advocacy, successfully advancing a gender-sensitive SME policy in 2015 (CIPE Africa, 2023). Withanage and Damayanthi (2024) demonstrated that chamber membership and entrepreneurial networks materially improve the reputation and business performance of women-owned enterprises in Sri Lanka.

In India, government schemes such as Stand-Up India, Mudra Yojana, and the Women Entrepreneurship Platform have created a substantial policy infrastructure, but implementation gaps remain significant. Research indicates that women entrepreneurs in Tier II and Tier III cities continue to be excluded from formal support networks, paralleling concerns raised about urban-centric chambers in Bangladesh (Nahar et al., 2025).

A consistent regional pattern emerges from this body of work. South Asian women's chambers, where they exist, operate under similar structural conditions such limited budgets, urban-centric memberships, dependence on a small number of active leaders, and uneven engagement with national policy. The cases of Sri Lanka's WCIC and Pakistan's SAARC chamber show that targeted external investment in capacity, paired with policy advocacy, can produce measurable institutional improvement. The absence of comparable evidence for Bangladesh's regional women's chambers is precisely the gap this study seeks to address.

2.3 National perspectives, Bangladesh

In Bangladesh, the literature on women's entrepreneurship is substantial, but specific literature on women's chambers is limited. Jahed, Kulsum and Akther (2011) provided a comprehensive inventory of support services across government, NGO, and financial institutions but concluded that the impact was modest and that programs were excessively donor-driven, reaching less than 5% of the target population. Sobhan and Hassan (2024) demonstrated that both formal institutions such as laws, regulations, credit policies and informal institutions like gender norms, social expectations continue to constrain female entrepreneurs.

Hossain, Farache and Lopez (2026) introduced the concept of Collective Institutional Shaping (CIS) to describe how dispersed actors in Bangladesh's women's entrepreneurship ecosystem collaborate to transform constraining institutions. Their analysis of 34 development programs identified business associations as central institutional shapers, but emphasised that their effectiveness depends on their internal capacity, social position, and resource base. Nahar, Karim and Sena (2025) added that professional networks in Bangladesh, including chambers of commerce, are often elite and urban-centric, systematically excluding rural and marginalised women. Afrin, Hoque and Akter (2024) and Hoque and Islam (2022) both used BWCCI as a sampling frame to study women's leadership and entrepreneurship, indirectly demonstrating BWCCI's reach as the most established chamber. None of these studies, however, examined the internal organisational capacity of women's chambers themselves.

2.4 Conceptual Framework

Institutional capacity is an organisation's ability to fulfil its mandate effectively. For women's chambers, this means representing members, advocating for policy change, delivering practical services, and sustaining operations financially. CIPE's (2023) engagement with BWCCI illustrates two core capacity problems: weak financial sustainability arising from over-dependence on grants, and weak member focus where services serve revenue generation rather than member needs. This study uses these two concepts as a conceptual starting point and extends them to chambers across Bangladesh.

3.0 Methodology

3.1 Study Area

The study covered the government-approved Women's Chambers of Commerce and Industries in Bangladesh. These operate at divisional, district, and sub-district levels and are registered under the Ministry of Commerce. According to the Ministry of Commerce (2026), 23 such chambers were officially approved at the time of the study (Annex A).

3.2 Research Approach

The study used a deductive qualitative research design. The three specific objectives, drawn from the conceptual framework on institutional capacity and Collective Institutional Shaping, served as the deductive coding frame against which data were analysed.

3.3 Data Collection

Ten Key Informant Interviews (KIIs) were conducted with the Presidents or Chairpersons of selected women's chambers. Interviews followed a semi-structured guide covering five sections: chamber background and governance; human resource capacity; financial sustainability; member services and institutional functions; and institutional challenges and opportunities (Annex B). Each interview lasted approximately 30 minutes and was conducted via Zoom on 24 May 2026. With informed consent, interviews were recorded, transcribed, and translated from mixed Bangla-English into English.

3.4 Sampling

Purposive sampling was used to select 10 of the 24 chambers. The sample was constructed to ensure diversity across geographic location (covering six of eight administrative divisions), chamber age (from the earliest, established 2010, to the most recent, established 2022), and contextual setting (metropolitan, divisional, district, hill, and haor). The full list of sampled chambers is presented in Annex C.

3.5 Data Analysis

The cleaned transcripts were coded thematically against the three pre-specified objectives. Codes were grouped into sub-themes and synthesised into the findings reported below. Quantitative attributes (staff numbers, membership counts, fee structures, year of establishment) were extracted into a comparison matrix to support cross-chamber analysis and the figures presented in Section 4.

3.6 Ethical Considerations

Informed consent was obtained from every participant before data collection. Participation was voluntary, and respondents were free to skip questions or stop the interview at any time. All responses were anonymised in reporting and presented in aggregate or attributed only by chamber location. Findings will be shared with participating chambers.

3.7 Limitations

Three limitations applied. First, the sample size of ten, though substantial relative to the universe of 24, limited statistical generalisation; findings are descriptive and exploratory. Second, all data were self-reported by chamber leadership and may reflect social desirability bias, particularly on sensitive questions of finance. Third, some chambers lacked systematic records, limiting verification. Triangulation across multiple chambers partially mitigated these limitations.

4.0 Findings

The findings are organised into six themes: chamber profile and governance; human resource capacity; financial sustainability; member services and institutional functions; institutional challenges; and opportunities.

4.1 Chamber Profile and Governance

The ten chambers were established between 2010 (Dhaka) and 2022 (Khulna), with most receiving their Trade Organisation license from the Ministry of Commerce several years after their initial establishment (Figure 1). Barishal, for instance, was established in 2015 but formally registered only in 2023. This pattern indicates a sustained pre-registration period during which chambers operate informally before securing full government recognition.

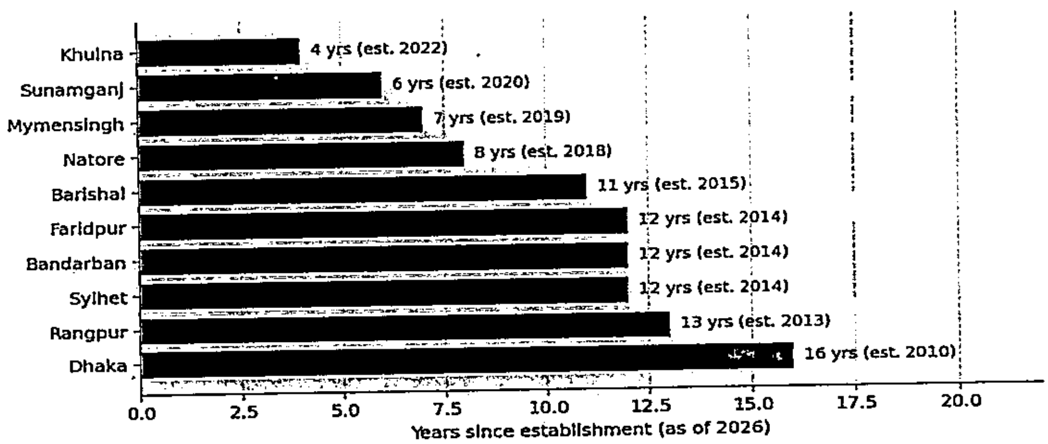


Figure 1. Years since chamber establishment

Membership ranged from 22 in Faridpur to 500 in Natore (Figure 2). Active membership consistently lagged total membership: Bandarban reported 30 active members of 62; Barishal reported 75 actives of 165. All chambers reported governance through an executive committee or board of directors, ranging from 6 directors in Faridpur to 22 in Khulna, with decisions taken collectively in meetings.

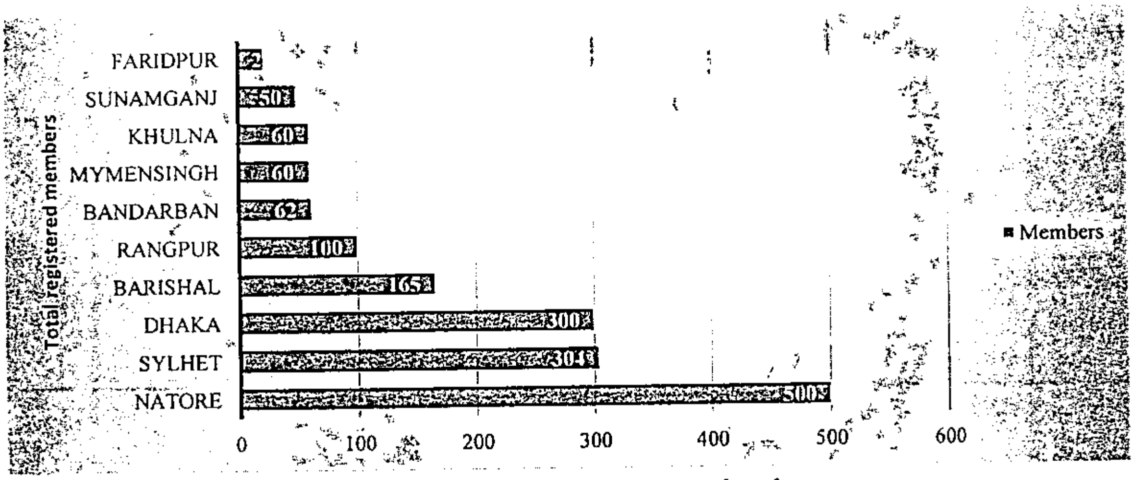


Figure 2. Total membership per chamber

Table 1. Chamber profile summary

Chamber	Established	Members	Directors	Paid Staff
Dhaka	2010	300	19	5
Rangpur	2013	100	17	2
Bandarban	2014 / 2016	62	19	1
Faridpur	2014 (MoC 2015)	22	6	1
Sylhet	2014	304	11	2
Barishal	2015 (MoC 2023)	165	13	2
Natore	2018 (MoC 2022)	500	21	5
Mymensingh	2019 (MoC 2022)	60	9	3
Sunamganj	2020	50	13	2
Khulna	2022 (MoC 2024)	60	22	3

4.2 Status of Human Resource Capacity

Across the ten chambers, paid staff numbers ranged from 1 (Bandarban, Faridpur) to 5 (Dhaka, Natore), with a mean of 2.6 and a median of 2 (Figure 1). Six of the ten chambers operated with two or fewer paid staff.

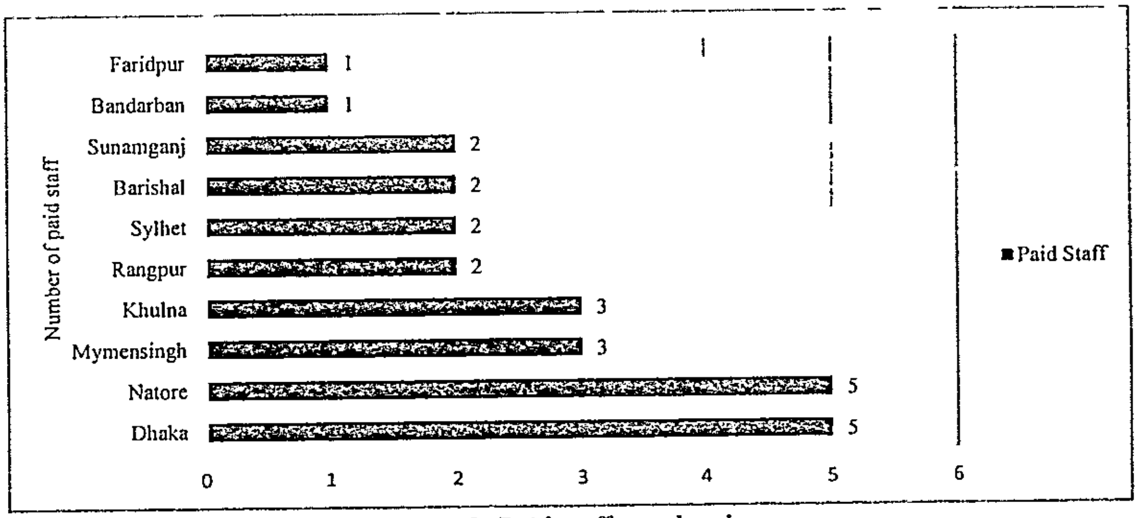


Figure 3. Paid staff per chamber

The President of Bandarban stated explicitly that the chamber cannot pay regular staff salaries and relies on the directors' personal effort. The President of Sunamganj reported that even supporting two staff adequately is extremely difficult. The Chairman of Rangpur described staffing as inadequate, particularly given that the chamber was effectively rebuilding following the political transition of mid-2024. The Chairman of Sylhet reported that for donor-funded projects, the chamber must recruit additional skilled personnel on a project basis. Where training is provided to chamber staff, it is sporadic and largely dependent on external sources such as the SME Foundation. Eight of the ten chambers identified finance, not training as the principal barrier to building human resource capacity.

4.3 Financial Sustainability is Severely Weak linked with Objective 2

Financial fragility was universal across the sample. Annual membership fees ranged from BDT 100 (Bandarban) to BDT 20,000 in joining fees at Sylhet a 200-fold variation. The Sylhet Chamber explicitly acknowledged that its high fee structure is itself a barrier: due to high fees, women are losing their interest in joining the chamber. Most chambers reported that members are reluctant or unwilling to pay even modest fees. The Bandarban chamber reported that many members do not pay even the BDT 100 fee because they perceive no return. The President of Sunamganj reported personally paying the chamber's FBCCI membership fee from her own pocket.

Apart from the Ministry of Commerce's BRCP-1 project which was mentioned by nearly every chamber, external donor support is minimal. Only Bandarban referred to a one-time UNDP training in 2014. The Sylhet Chamber reported a particularly distressing situation: it had lost a portion of its funds in Global Islami Bank during the recent banking sector turmoil. The Dhaka chamber identified the South Asia Association Forum as a potential funding source, but no funding had yet materialised. Rangpur stood out as the only chamber reporting regular fee payment by all members, a finding that requires verification in extended analysis.

The pattern across the sample is unmistakable: chambers survive on a fragile combination of nominal member fees, intermittent government project support, and personal contributions from leadership. The institutional model is structurally under-funded.

The 200-fold variation in fees also reveals two distinct chamber models within the sample. The first is a low-fee, broad-access model represented by Bandarban (BDT 100), Natore (BDT 500), Khulna (BDT 1,000), and Mymensingh (BDT 1,000). These chambers prioritise inclusion but generate very limited revenue per member. The second is a high-fee, exclusive-access model represented most clearly by Sylhet (BDT 20,000 joining). These chambers may generate more revenue per active member, but they admit to deterring participation. Neither model produces sustainable revenue at the chamber level, suggesting that the underlying issue is not the fee level itself but the absence of demonstrable value-for-money for members. Until chambers can credibly demonstrate value, neither low fees nor high fees will produce a stable revenue base.

4.4 Services are Training-Heavy with Weak Market Linkage

Services across all ten chambers clustered around four functions: training (universal), fair participation (most chambers), bank loan facilitation (most), and administrative support such as trade license and income tax certificate processing (most). The Rangpur Chamber additionally reported training in earthquake preparedness and health, reflecting a local response to climate vulnerability.

The most consistent service gap is marketing and market linkage. The President of Bandarban explicitly noted that even where production capacity exists, members cannot effectively market their products. The President of Khulna echoed this: production is possible, but marketing is difficult. E-commerce engagement is largely individual and informal rather than institutional. The Sylhet Chamber reported attempting to initiate a trade fair as part of its self-sufficiency strategy. International or export-facing engagement is essentially absent across the entire sample. The Mymensingh President noted that while collateral-free bank loans exist on paper for women entrepreneurs, in practice access is severely limited, a structural barrier that chambers alone cannot resolve.

4.5 Policy Advocacy is Uneven and Limited

Only two chambers, Dhaka and Barishal, reported active policy advocacy. Dhaka engages in SME development and policy formulation discussions; Barishal advocates for 5% concessional lending rates for women entrepreneurs. The Rangpur and Sylhet Chambers explicitly reported that policy advocacy had not yet started. The remaining chambers reported advocacy only in the form of individual loan facilitation. This finding directly underscores Hossain et al.'s (2026) argument that institutional shaping requires capacity and chambers without resources cannot perform the advocacy function attributed to them in the literature.

4.6 Universal Financial Constraint with Geographic and Structural Specificity

Financial constraint was the universal challenge, cited by every chamber. Beyond this, two thematic patterns emerged. The first is geographic exclusion: Sunamganj's haor (wetland) location restricts women's physical attendance at chamber events; Bandarban's hill terrain restricts market access. The second is regulatory and social friction: Faridpur cited social restrictions on women; Khulna highlighted onerous bank guarantor requirements and punitive CIB classification of women borrowers as defaulters after a single missed installment; Mymensingh noted the gap between legal entitlement to collateral-free loans and actual access; Sylhet emphasised the systemic banking sector crisis; Rangpur called for self-interest and political considerations to be eliminated from chamber governance. Several chambers (Bandarban, Sunamganj) operate from rented premises or the President's home, and the absence of permanent office space was a repeated unmet need.

4.7 Opportunities in Agro-Processing, Building Sales Centres, and Digital Literacy

Despite their constraints, respondents identified concrete opportunities. Bandarban highlighted agro-processing in coffee, ginger, and cashew nuts. Natore called for a dedicated sales centre on government-allocated land. Dhaka and Mymensingh prioritised digital and AI-related training. Several chambers emphasised the need for stronger inter-chamber collaboration. Khulna has signed a Memorandum of Understanding with the Mahila Federation. Sylhet has partnered with Prime Bank's Women's Wing, the first reference in the sample to a private bank women's banking unit. Both partnerships indicate that institutional innovation is feasible where leadership is proactive.

5.0 Discussion

This study finds that women's chambers in Bangladesh face structural and severe capacity constraints across all three dimensions of institutional capacity assessed. Human resource capacity is critically thin: most chambers operate with two or fewer paid staff. Financial sustainability is weak: revenues depend on a fragile combination of nominal member fees, intermittent government project support, and personal contributions from leadership. Institutional functions concentrate on training, with weak market linkage and limited policy advocacy.

These findings confirm and extend the broader regional and theoretical literature in three ways. First, they validate CIPE's (2023) identification of weak financial sustainability and limited member focus as the two core capacity gaps in women's chambers, both gaps are observed across the Bangladesh sample. Second, the findings support Hossain et al.'s (2026) Collective Institutional Shaping framework: business associations can shape institutions only when they themselves are institutionally capable. The pervasive resource fragility documented here limits chambers' capacity to act as institutional shapers, which in turn limits the broader transformation of women's entrepreneurial environment. Third, the findings echo Nahar et al.'s (2025) observation that even capable chambers tend toward urban-centric, elite engagement: the Sylhet chamber's BDT 20,000 joining fee is, by its own admission, exclusionary.

Chambers are designed as membership organisations, but members refuse to pay because they perceive no value. Chambers cannot deliver more value because they lack resources, and the principal source of resources should be members. This self-reinforcing low-capacity equilibrium, low fees produce low capacity, low capacity produces low services, low services produce lower willingness to pay, is the central institutional challenge facing the sector.

The findings also reveal that macro-financial conditions directly affect chamber viability. The Sylhet Chamber's loss of funds in Global Islami Bank illustrates how systemic banking shocks affect chambers, not just their members. Rangpur's reported restart following the political transition of mid-2024 shows that institutional capacity is also subject to political conditions. These observations indicate that chamber capacity must be understood as both a structural and a contextual phenomenon.

Two further interpretive observations emerge. First, the diversity of contexts in the sample, metropolitan Dhaka, divisional Sylhet and Khulna, district-level Natore and Faridpur, hill-tract Bandarban, and haor Sunamganj produces a clear gradient of capacity. The Dhaka chamber, with the longest history and largest member base, operates with five staff and engages in policy discussions; chambers in remote or geographically constrained regions operate with one or two staff and minimal advocacy reach. This gradient is not merely a function of resources; it reflects how social, geographic, and political contexts compound or relieve institutional fragility. National-level reform programs that treat all 23 chambers uniformly are therefore unlikely to succeed. A differentiated approach is required; one that recognises that Sunamganj's haor context and Bandarban's hill context demand different forms of intervention than Dhaka's metropolitan one.

Second, the findings illuminate a deeper question about the purpose of women's chambers themselves. In their current form, most sampled chambers function primarily as training delivery channels rather than as collective bargaining or advocacy bodies for their members. This is at odds with both the international literature (Brush et al., 2009) and the Sri Lankan case (CIPE Africa, 2023), where the most effective women's chambers have evolved beyond training to become recognised policy actors. Bangladesh's chambers will need similar evolution if they are to fulfil the role attributed to them in the Collective Institutional Shaping framework that of institutional shapers rather than service delivery agents.

5.1 Conclusion

This study examined the institutional capacity of Women's Chambers of Commerce and Industry (WCCIs) in Bangladesh across three dimensions which are human resource capacity, financial sustainability, and institutional functions. Based in the data collected through the Key Informant Interviews with ten chambers in multiple administrative divisions, the findings indicate that the women chambers are structurally fragile and vulnerable in all three dimensions.

With limited human resources, unpredictable and stable revenues which depend on a mix of nominal member fees, intermittent government project funding, and personal contributions from leadership, the chambers suffer in delivering the stipulated services. As a result, services concentrate heavily on training, often being sponsored by donors, with weak market linkage and limited policy advocacy. A self-reinforcing low-capacity cycle is also noticed where low fees produce low capacity, which produces low services, which lowers willingness to pay for the members.

The resource scarcity noted in the study directly limits the women chambers ability to be institutional shapers which can potentially transformation of Bangladesh's women's entrepreneurship environment significantly. Thus, strengthening the chambers should not be viewed as an optional reform but as a prerequisite for building sustainable women entrepreneurship support system in Bangladesh.

6.0 Recommendations

Based on the findings, the following six recommendations are offered for policymakers, donors, and chamber leadership.

6.1 **Establish a comprehensive capacity-building framework for women's chambers:** A standardised, government-led program coordinated through the Ministry of Commerce, and the SME Foundation should provide chambers with structured support across governance, financial management, member engagement, and advocacy.

6.2 **Strengthen member value:** Chambers should be supported to design tangible, measurable member services particularly in market linkage, where the service gap is greatest. A breakthrough in member value is the prerequisite for a breakthrough in member fee mobilisation.

6.3 **Assist in permanent chamber infrastructure:** Several chambers explicitly called for permanent office and sales centre space. Government allocation of suitable land or rent subsidies in district towns would address a critical infrastructure gap.

6.4 **Reform access-to-finance regulations for women entrepreneurs:** Existing collateral-free loan policies should be made functional, not just nominal.

6.5 **Strengthen inter-chamber collaboration and policy advocacy:** A formal national body of women's chambers should be established to coordinate advocacy, share resources, and channel donor support equitably. This would also enable participation in regional networks such as the South Asia Women's Network and the SAARC Chamber of Women Entrepreneurs.

6.6 **Conduct further research:** A follow-up survey of the remaining 13 chambers, combined with structured financial audit data, would generate a complete national picture. Comparative studies with WCIC Sri Lanka and Indian state-level women's chambers would yield actionable lessons.

7.0 Declaration: I declare that this paper contains neither plagiarized material nor any AI generated content. The analysis is the author's contribution. Any deviation from this declaration is author's liability

8.0 References

Afrin, S., Hoque, M.S. and Akter, B. (2024) 'Women's leadership development through entrepreneurship in Bangladesh', *Management and Labour Studies*. Available at: https://doi.org/10.1177/0258042X231208591 (Accessed: 3 June 2026).

Agrawal, R., Pandey, A. and Bhardwaj, R. (2023) 'Challenges faced by women entrepreneurs in South Asian countries using interpretive structural modeling', *Cogent Business & Management*, 10(1), 2244755. Available at: https://www.researchgate.net/publication/373066239 (Accessed: 3 June 2026).

Brush, C.G., de Bruin, A. and Welter, F. (2009) 'A gender-aware framework for women's entrepreneurship', *International Journal of Gender and Entrepreneurship*, 1(1), pp. 8–24. Available at: https://doi.org/10.1108/17566260910942318 (Accessed: 3 June 2026).

BWCCI (2024) *Bangladesh Women Chamber of Commerce and Industry*. Available at: https://bwcci-bd.org/ (Accessed: 7 May 2026).

CIPE (2023) *Empowering Women Entrepreneurs in Bangladesh*. Washington DC: Center for International Private Enterprise. Available at: https://www.cipe.org/resources/empowering-women-entrepreneurs-bangladesh/ (Accessed: 12 May 2026).

CIPE Africa (2023) *Blazing a Trail: The Women's Chamber of Industry and Commerce Sri Lanka*. Available at: https://www.cipeafrica.org/resources/blazing-trail-womens-chamber-industry-commerce-sri-lanka/ (Accessed: 3 June 2026).

Habiba, U., et al. (2025) 'Uncovering the barriers faced by women entrepreneurs in small and medium enterprises', *Journal of Enterprising Communities*. Available at: https://doi.org/10.1108/JEC-01-2025-0003 (Accessed: 3 June 2026).

Hoque, M.S. and Islam, N. (2022) 'Leadership behaviors of women entrepreneurs in SME sector of Bangladesh', *Businesses*, 2(2), pp. 228–245. Available at: https://doi.org/10.3390/businesses2020016 (Accessed: 8 May 2026).

Hossain, M., Farache, F. and Lopez, C. (2026) 'Women's entrepreneurship through collective institutional shaping', *World Development*, 203, 107374. Available at: https://doi.org/10.1016/j.worlddev.2026.107374 (Accessed: 12 May 2026).

International Finance Corporation (2017) *MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets*. Washington DC: World Bank Group. Available at: https://www.ifc.org/en/insights-reports/2017/msme-finance-gap (Accessed: 3 June 2026).

Jahed, M.A., Kulsum, U. and Akther, S. (2011) 'Women entrepreneurship in Bangladesh: a study on support services available for its development and growth', *Global Management Review*, 5(3). Available at: https://www.researchgate.net/publication/236175637 (Accessed: 12 May 2026).

Ministry of Commerce, Bangladesh (2026) *Chamber and Joint Chamber*. Available at: https://mincom.gov.bd/pages/static-pages/694032ee35ce18e1c056466a (Accessed: 2 May 2026).

Minniti, M. and Naudé, W. (2010) 'What do we know about the patterns and determinants of female entrepreneurship across countries?', *European Journal of Development Research*, 22(3), pp. 277–293. Available at: https://doi.org/10.1057/ejdr.2010.17 (Accessed: 3 June 2026).

Nahar, S., Karim, M.S. and Sena, V. (2025) 'How do unexpected networks help female entrepreneurs in the Global South survive in adverse contexts? A case study of Bangladesh', *Gender, Work & Organization* [Online first, 15 August 2025]. Available at: https://doi.org/10.1111/gwao.70030 (Accessed: 8 May 2026).

Sobhan, N. and Hassan, A. (2024) 'The effect of institutional environment on entrepreneurship in emerging economies: female entrepreneurs in Bangladesh', *Journal of Entrepreneurship in Emerging Economies*, 16(1), pp. 12–32. Available at: https://doi.org/10.1108/JEEE-01-2023-0028 (Accessed: 12 May 2026).

Sohail, M. (2022) 'Challenges Faced by Businesswomen in Pakistan', *Pakistan Journal of International Affairs*, 5(3). Available at: https://www.researchgate.net/publication/366014244 (Accessed: 3 June 2026).

Withanage, K.D. and Damayanthi, B.W.R. (2024) 'Reputation of Entrepreneur Mediates the Business Performance: A Study of Women-owned Small Enterprise in Sri Lanka'. Available at: https://www.researchgate.net/publication/378765734 (Accessed: 3 June 2026).

9.0 Annexures

Annex A: List of 23 Approved Women Chambers in Bangladesh (as of May 2026)

Sl no	Name of Chamber	Address	Contact
1	Bangladesh Women Chamber of Commerce and Industry (BWCCI)	Plot 2 (3rd floor), Road 23/C (next to Gulshan-1 Post Office), Gulshan-1, Dhaka-1212	Phone: 02-9861526 Email: womenchamber.office@gmail.com
2	Bandarban Women Chamber of Commerce and Industry	Madrasa Shopping Complex (2nd floor), Bandarban Bazar, Bandarban Hill District, Bandarban	—
3	Barishal Women Chamber of Commerce and Industry	Anchal Villa, Gora Chand Das Road, Rahman Bagh Lane, Botola, Barishal	Mobile: 01718-521092, 01674-879006 Email: ahmedlily69@yahoo.com
4	Chattogram Women Chamber of Commerce and Industry	Jahan Building-5 (3rd floor), 74, Agrabad C/A, Chattogram	Email: info@cwcci.org
5	Dhaka Women Chamber of Commerce and Industry	National Scout Bhaban (10th floor), 70/1, Purana Paltan Line, Kakrail, Dhaka-1000	Mobile: 01819-217618
6	Faridpur Women Chamber of Commerce and Industry	Chamber House, Niltuli, Faridpur	Mobile: 01757-672442
7	Rajshahi Women Chamber of Commerce and Industry	House 649/1, Ram Chandrapur (Kharbona), adjacent to Natore Road, Boalia, Rajshahi	Mobile: 01716-884501 Email: rwcci2016@gmail.com
8	Rangpur Women Chamber of Commerce and Industry	House 47/1, Road 01, South Road, Senpara, Rangpur	Mobile: 01741-078031 Email: rangpurwomenchamber@yahoo.com
9	Sylhet Women Chamber of Commerce and Industry	23/3, Shaptodipa, Jamtala, Sylhet	Mobile: 01965-514477 Email: swcci.bd.org@gmail.com
10	Kishoreganj Women Chamber of Commerce and Industry	Muktijoddha Sangsad Bhaban, Kharampatti, Kishoreganj (new address) Previous: "Panthashala" 1287/3, Kharampatti, Kishoreganj	Mobile: 01740-909010

Sl no	Name of Chamber	Address	Contact
11	Mymensingh Women Chamber of Commerce and Industry	7 No. Koborkhana Road, Mymensingh	Mobile: 01731-152562
12	Sherpur Women Chamber of Commerce and Industry	78/00, Sojbarghila, Sherpur Town, Sherpur	Mobile: 01711-815736
13	Narsingdi Women Chamber of Commerce and Industry	Satirpara, Shapla Chattar, Narsingdi	Mobile: 01855-915524
14	Cumilla Women Chamber of Commerce and Industry	Ramghala Road, Chamber Bhaban (2nd floor), Cumilla	Mobile: 01711-862874
15	Sirajganj Women Chamber of Commerce and Industry	Malabi, Station Road, Sirajganj	Mobile: 01738-881357
16	Patuakhali Women Chamber of Commerce and Industry	Malek Timber Works, Swanirvar Road, Patuakhali	Mobile: 01725-208885
17	Sunamganj Women Chamber of Commerce and Industry	Nilay, 123/1, Notunpara, Sunamganj	
18	Dinajpur Women Chamber of Commerce and Industry	Chhatripara (Chowdhury Cottage Villa, 3rd floor), Dinajpur Sadar, Dinajpur-5200	Mobile: 01767-178981 Email: dwcci2001@gmail.com
19	Natore Women Chamber of Commerce and Industry	Convener: Most. Sultana (Panna) Chandit Barogacha, Natore Sadar, Natore	Mobile: 01711-489877, 01719-864486 Email: natorewomencci@gmail.com
20	Khulna Women Chamber of Commerce and Industry	16, Haji Mohsin Road, Khulna, Bangladesh	Tel: 02477728075-6 Email: womencklnbd@gmail.com
21	Cox's Bazar Women Chamber of Commerce and Industry	New Circuit House Road, Cox's Bazar	
22	Chandpur Women Chamber of Commerce and Industry	269, Bishnudi Road, adjacent to Bank Colony, Chandpur	-

Sl no	Name of Chamber	Address	Contact
23	Gazipur District Women Chamber of Commerce and Industry	Engineers Bhaban, 10th floor, Ward No. 28, Gazipur City Corporation, Gazipur	
24	Chandpur Women Chamber of Commerce and Industry	(Address details not specified in source list)	-

Note: This list is an English translation of the official Bengali list.

Annex B: Semi-Structured Interview Guide

Institutional Capacity Assessment of Women's Chambers of Commerce and Industries in Bangladesh

Purpose and Instructions

Purpose: This interview is part of a research study to assess the institutional capacity of government-approved Women's Chambers of Commerce and Industries in Bangladesh. The study focuses on three areas: (1) human resource capacity, (2) financial sustainability, and (3) institutional challenges and opportunities.

Duration: Approximately 30 minutes.

Confidentiality: Your responses will be kept strictly confidential. No individual chamber will be identified in any report. Findings will only be presented in aggregate or anonymised form.

Consent: Participation is voluntary. You may skip any question or stop at any time. With your permission, the interview will be audio-recorded for accuracy. The recording will be deleted after transcription.

Respondent Profile

Name of Chamber	
Name of Respondent	
Designation	
Date of Interview	
Location / Mode	
Interview Code	

SECTION A: Chamber Background and Governance

Objective: To understand the chamber's history, governance structure, and current mandate.

Q1. Can you briefly describe your chamber? When was it established and what is its main purpose?

Q2. How is your chamber governed? Who makes key decisions?

Q3. What is the formal relationship between your chamber and the Ministry of Commerce?

SECTION B: Human Resource Capacity [Objective-1]

Objective: To examine staffing levels, qualifications, and operational human resource capacity of the chamber.

Q4. How many paid staff does your chamber currently have?

Q5. Do you think your current staffing level is adequate to deliver all the services the chamber aims to provide?

Q6. How does the chamber build the skills and capacity of its own staff and leadership?

Q7. In your view, what human resource investments would most improve the chamber's effectiveness?

SECTION C: Financial Sustainability [Objective 2]

Objective: To analyse the chamber's sources of revenue, financial stability, and degree of donor dependency.

Q8. What are the main sources of income for your chamber?
Q9. How would you describe the financial health of your chamber?
Q10. Many chambers depend heavily on donor-funded projects. Is this true for your chamber? What are the consequences?
Q11. Many members are reluctant to pay regular membership fees. Have you experienced this? What do you think is the reason?
Q12. What steps, if any, is the chamber taking to become more financially self-sufficient?

SECTION D: Member Services and Institutional Functions [Objective 3]

Objective: To assess what services chambers offer, how effectively they serve members, and how inclusive they are.

Q13. What services and programs does your chamber currently offer to members?
Q14. Does the chamber engage in policy advocacy on behalf of women entrepreneurs? Can you give examples?
Q15. Does the chamber help members access markets, buyers, or business networks? How?
Q16. Who are your members? Do they represent the full diversity of women entrepreneurs in your area?
Q17. How does the chamber monitor the quality and impact of its services?

SECTION E: Institutional Challenges and Opportunities [Objective 3]

Objective: To identify the key barriers the chamber faces in operating effectively and opportunities for growth.

Q18. What are the biggest challenges your chamber faces in carrying out its work?
Q19. Does your chamber collaborate with other organisations? Who are your key partners?
Q20. What opportunities do you see for your chamber in the next three to five years?
Q21. If you could change one thing about how women's chambers operate in Bangladesh, what would it be?

Closing

Q22. Is there anything else about your chamber's capacity, challenges, or work that you would like to add?

Annex C: List of Women's Chambers Sampled

The following 10 chambers were sampled through purposive sampling out of 24 government-approved Women's Chambers of Commerce and Industries currently operating under the Ministry of Commerce, Bangladesh (Ministry of Commerce, 2026).

#	Chamber	Division	Year Est.
1	Dhaka	Dhaka	2010
2	Rangpur	Rangpur	2013
3	Bandarban	Chattogram	2014 / 2016
4	Faridpur	Dhaka	2014
5	Sylhet	Sylhet	2014
6	Barishal	Barishal	2015
7	Natore	Rajshahi	2018
8	Mymensingh	Mymensingh	2019
9	Sunamganj	Sylhet	2020
10	Khulna	Khulna	2022

Bangladesh Public Administration Training Centre

Savar, Dhaka

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE : **Research for Governance**

MODULE NO: 05

Marks Obtained

DATE: 15.06.2026

Code No..............

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance**

MODULE NO: 05

DATE: 15.06.2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
3. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name	Roll
ASM Lukman (8103)	125

Beyond Deficits and Debt: Rethinking Public Financial Management in Bangladesh through a Balance Sheet Approach

Abstract

Public Financial Management (PFM) in Bangladesh has traditionally focused on budget deficits, revenue collection and public debt management. While these indicators are important, they only provide a partial picture of the state's financial position, as government assets, contingent liabilities and a large portion of overall public wealth remain outside the analysis.This study evaluates the existing public financial management framework of Bangladesh from the perspective of sovereign balance sheet analysis and public wealth management. Through qualitative and comparative analysis based on government reports, PEFA assessments, international standards and relevant literature reviews, the current framework captures the state's assets and liabilities, what limitations exist in adopting a balance sheet-based approach, and how it can contribute to financial stability and transparency.The research findings reveal significant weaknesses in public asset management, encompassing the absence of a consolidated national asset registry, fragmented asset information systems, limited accrual-based accounting, inadequate fiscal risk reporting, and insufficient oversight of state-owned enterprises. Furthermore, material inconsistencies are observed in the reporting of financial assets across official government documents, indicating that the government's true asset position is not fully reflected in current financial statements. A substantial volume of public assets thus remains outside the ambit of formal financial reporting and policy formulation processes. The study concludes that the main challenge in Bangladesh is not just a lack of resources; but rather limitations in the proper identification, visibility, measurement, and effective management of existing government resources. In this context, the introduction of a sovereign balance sheet-based public financial management framework through integrated asset registration, improved financial reporting, strong state-owned enterprise governance systems and gradual adoption of international accounting standards can significantly strengthen the country's financial transparency, public asset management, and long-term financial stability.

Keywords: Public Financial Management, Sovereign Balance Sheet, Public Wealth Management, Fiscal Transparency, Public Assets.

1.0 Introduction

1.1 Background Contextual Premises

For a long time, many developing countries, including Bangladesh, have assessed the state of public finances mainly on the basis of conventional indicators such as annual budget deficit, government debt and general government deficit. These indicators are undoubtedly important for macroeconomic management; however, reliance on such indicators alone obscures a larger reality of state capacity and economic resilience—the quantity, quality and productivity of stateowned assets. As a result, the discussion regarding financial stability of a country has been dominated by a liability and debt-centric perspective; while the importance of public asset management as a tool for national development, intergenerational justice and long-term financial stability has remained relatively neglected.

In modern public financial management (PFM) literature, the concept of "public wealth" is not limited to annual revenue and expenditure calculations; rather, it assesses the overall balance sheet position of the state. Simply put, the net value of the state's total assets minus its total liabilities is the state's public wealth:

$$\text{Public Wealth} = \text{Total Public Assets} - \text{Total Public Liabilities}$$

The balance sheet—an overall picture of assets and liabilities at a given point in time—has been a fundamental basis for decision-making since the dawn of human civilization. The concept of the balance sheet became important in human society when people began to determine 'what they own' and 'what they own' through the making of laws.

Within this conceptual framework, the state is not merely a tax collector and borrower, but also the ultimate custodian of all public assets (IMF, 2018; Ball et al., 2024). Despite this, no integrated sovereign balance sheet or public asset registry has yet been developed in Bangladesh and there exists no systematic valuation as well as depreciation of publicly owned assets (PEFA, 2018; IMF, 2021). This is not just a matter of accounting limitations; rather, it reflects a deep structural weakness in the state's institutional capacity and asset management framework as a custodian of public resources.

1.2 The Problem Statement

The true value of net worth of Bangaldesh is still unclear, highlighting long-standing institutional weaknesses in state asset management. The government lacks a comprehensive account of state assets due to the lack of a comprehensive national asset registry. As a result, disputes over ownership of government land, inefficient use of assets and economic losses continue.

Second, although government accounting system of Bangladesh is partially compliant with GFSM 2014, a full balance sheet-based reporting system has not yet been adopted. More importantly, the limited application of accrual-based accounting standards and rigorous asset valuation methods still hinders the effective recognition, measurement and management of government assets and liabilities. Life-cycle valuation, depreciation analysis, or performance evaluation of large infrastructure assets such as roads, bridges, ports, railways, power plants, and government buildings is almost absent. Similarly, other non-financial assets such as government buildings, vehicles, machinery, and IT infrastructure are not properly measured and reported according to international standards—such as IPSAS. As a result, a large portion of national wealth remains outside the formal financial framework and remains economically "invisible." Without proper asset valuation and balance sheet-based financial management, the government cannot ensure the best use of its assets, convert latent human capital into economic assets, properly assess financial risks, or be effective in formulating longterm investment strategies.

Many state-owned enterprises[1] are operating within outdated governance and accountability structures, hampering their effectiveness, commercial viability and the achievement of the expected returns on government investment (Uddin et. el, 2016). If all potential financial liabilities of Bagladesh Governemnt were fully accounted for, the actual amount of public debt would appear significantly higher than it is being reported currently (World Bank, 2022).

---

[1] The government has to bear about Tk 500 billion in subsidies to keep state-owned enterprises operating, which puts significant pressure on the national budget.

1.2.1 Scale and Gravity of the problem

Table 1 presents key fiscal indicators over FY 2018-19 to FY 2022-23:

Indicator	FY 2018- 19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Revenue-to-GDP (%)	9.9	9.5	9.7	9.8	10.0
Tax-to-GDP (%)	8.3	7.9	8.1	8.3	8.5
Budget Deficit (% GDP)	5.0	5.1	6.2	5.8	5.6
Public Debt (% GDP)	34.2	36.6	38.6	39.4	39.1
Foreign Loan ($b)	53.9	63.7	76.5	92.2	96.5
ADP Utilisation Rate (%)	84.2	79.8	82.5	86.1	83.7
SOE Fiscal Cost (% GDP)*	0.9	1.2	1.4	1.7	1.5

Source: Bangladesh Economic Review, Finance Division
*SOE fiscal cost includes direct subsidies and equity injections.

Revenue-to-GDP ratio of Bangladesh was only 10 percent in fiscal year 2022-23. This is significantly lower than the average for comparable lower-middle-income countries and South Asia (IMF, 2023). While this revenue deficit is seen as a major fiscal constraint to the country's development, the state's asset base is often overlooked in fiscal discussions.

The data indicate that the trend of debt financing in Bangladesh has increased faster than revenue growth. At the same time, despite the huge government assets and long-term investments in state-owned enterprises, the desired financial and economic results have not been achieved from them. As a result, a large part of the government assets are not able to generate their potential value. In fact, in many cases, the cost of maintaining and operating these assets is creating additional financial pressure on the government.

1.3 Objectives and Research Questions

General Objective- The main objective of this study is to review the current public financial management framework of Bangladesh from a sovereign balance sheet perspective. Specifically, the main goal of this study is to explore how to strengthen financial stability, make public asset management more effective and improve the strategic policymaking capacity of the state by analyzing an integrated picture of the state's assets, liabilities, and financial risks.

Specific Objectives:

- To assess the extent to which the state's assets, liabilities, contingent liabilities and financial position of state-owned enterprises are reflected in the existing PFM framework.
- To identify the institutional, legal, technical and accounting constraints of implementing a balance sheet-based approach.
- To analyze how a balance sheet-based PFM framework can help improve financial stability, transparency and efficiency of government asset and liability management.

The study seeks to answer the following research questions:

1. To what extent does Bangladesh's existing public financial management (PFM) framework adequately reflect the overall financial position of the state—particularly both assets and liabilities?
2. What are the institutional, technical, and policy constraints to incorporating a balance sheet approach into Bangladesh's fiscal and financial management?
3. How can a balance sheet-based public financial management system strengthen Bangladesh's financial sustainability, transparency and efficient and strategic management of public resources?

1.4 Rataionale

While Bangladesh's public financial management (PFM) has long focused on budget deficits, revenue collection, and public debt, these indicators do not provide a complete picture of the state's true financial capacity and public resources. In particular, despite the vast public land, infrastructure, and state-owned assets, liability- and deficit-based analysis obscures the economic potential of state resources.

In the current global context, public financial management is gradually moving from a budgetbased approach to a balance sheet-based framework. International institutions such as the IMF, World Bank, and IPSASB are emphasizing accrual-based accounting, public wealth management, and sovereign balance sheet frameworks.

However, Bangladesh's current PFM framework is largely based on cash-based accounting, which fails to provide a complete picture of the true value, efficiency, and long-term financial risks of government assets.

The lack of a comprehensive government asset registry, fragmented information systems, weak governance of state-owned enterprises and the absence of life-cycle assessments of infrastructure assets have weakened public asset management in Bangladesh. As a result, a large amount of government assets are being underutilized and contingent liabilities, PPP commitments, and long-term financial obligations are not being properly reflected in financial reports. In this context, a balance sheet and public asset-based PFM framework can be helpful in assessing financial risk, ensuring efficient use of resources, financial transparency, and long-term financial stability. Therefore, this study will make an important contribution to policymaking and financial reform by analyzing the limitations of the existing PFM system, the relevance of international standards and an integrated balance sheet-based financial governance framework.

1.5 Significance of the Study

Bangladesh is currently at a critical juncture in its development. The transition from LDC to a low-income country by 2026[2] and the structural transformation of the economy require changes in the country's fiscal governance that go beyond the conventional budget deficit management. According to the IMF (2018), if governments can manage their public assets to the highest efficiency, it is possible to generate an annual revenue equivalent to about 3 percent of GDP. As shown in Table-1, Bangladesh has one of the lowest revenue collection rates in the world compared to GDP. In this context, strategic and efficient management of public resources is an important but still underexplored opportunity to increase revenue, strengthen fiscal capacity and finance long-term development.

[2] https://www.un.org/ldcportal/content/bangladesh-graduation-status

2.0 Literature Review

2.1 From Fiscal Flows to Sovereign Balance Sheets: An Evolving Paradigm

Contemporary public finance management (PFM) research is increasingly recognizing that analysis based solely on revenue, expenditure and budget deficits does not provide a complete picture of the true state of the economy. Therefore, researchers are emphasizing balance sheet-based fiscal governance, focusing on state assets, liabilities, net worth of government assets, and long-term fiscal stability (Allen et al., 2013). According to Ball et al. (2024), effective financial management requires institutional integration of accounting information with government institutions and administrative culture.

The importance of sovereign balance sheet management increased significantly after the global financial crisis of 2007–2009, as the crisis exposed the limitations of deficit-based analysis. Fiscal Monitor of IMF (2018) highlights that governments around the world own nearly $101 trillion in assets but the government paid less attention to assests than to liabilities. IMF estimates that increase in the average income from government assets by just 1 % can raise the revenue equal to total corporate income tax revenues of developed countries. This data indicates that while government resources hold enormous economic potential, a large portion of them are still underutilized. Detter and Fölster (2015) argue that poor management of public resources is not just a matter of administrative inefficiency; it is an important but often overlooked constraint to economic growth. For developing countries in particular, efficient use of public resources can strengthen fiscal capacity and growth in the long term by reducing over-reliance on debt. Thus, the sovereign balance sheet-based governance is being treated as a more comprehensive, reliable and realistic way to assess the financial results of a country.

2.2 Transition from Cash to Accrual Accounting

Chan (2010), Pattnaik and Cooper (2011) and OECD (2017) are in the view that accrual-based accounting increases financial transparency by including long-term pension liabilities, deferred infrastructure maintenance costs, PPP guarantees, asset depreciation and the real value of assets in government financial reports. Based on the experience of the OECD countries, Blundal (2003) shows that despite the transition to this system is challenging, it tremendously improves the quality and reliability of financial decision-making.

IPSAS 17 and IPSAS 19 provide important guidance to ensure proper accounting of government assets and transparent disclosure of potential liabilities and financial risks. PEFA assessment (2018) highlights that these standards have not yet been fully implemented in Bangladesh. Hughes (2018) thinks that the challenge of such reforms is not primarily technical; rather, it is political and institutional, as financial opacity often weakens accountability and creates opportunities for misuse of resources.

2.3 PEFA Assessment: Bangladesh

The PEFA (2018) assessment of Bangladesh identified several key weaknesses in public financial management, particularly in the management and disclosure of information on government assets, liabilities and financial risks. These limitations are considered a major challenge to the establishment of a sovereign balance sheet-based fiscal governance system. **Table 2** presents the results of selected PEFA indicators for Bangladesh compared to the South Asian regional average.

Bangladesh in Regional Perspective: A Comparison of Selected PEFA Indicators

PEFA Indicator	Bangladehsh (2018)	Regional Average	Assessment
PI-1: Aggregate expenditure outturn	B	C+	Moderate
PI-6: Central govt operations outside budget	C	C	Weak
PI-10: Fiscal risk reporting	D+	C	Critical Gap
PI-11: Public investment management	C	C+	Weak
PI-12: Public asset management	D	C	Critical Gap
PI-17: Budget preparation process	C+	B	Moderate
PI-25: Internal audit	D+	C+	Critical Gap
PI-29: Annual financial reporting	D+	C	Critical Gap
PI-30: External audit	C	C+	Weak

Sources: PEFA Secretariat (2018); World Bank (2022)

The PEFA (2018) assessment found Bangladesh to have a score of D or D+ in four areas critical to sovereign balance sheet governance, indicating serious deficiencies in the management and reporting of information on government assets, liabilities and financial risksConsequently, it is difficult to obtain a complete picture of the financial position and it is currently not possible to reliably estimate the true sovereign net worth of the state.

3.0 Analytical Framework

The analytical framework of this study is based on the Sovereign Balance Sheet approach and the concept of Public Wealth Management. Its main objective is to assess the extent to which the existing Public Financial Management (PFM) framework of Bangladesh reflects the actual financial position of the state, identify its limitations and review how a balance sheet-based approach can ensure financial stability and efficient management of public assets. This analysis has been completed in three sequential steps.

Stage 1: Assessment of the Existing PFM Framework

The first phase of the review included a critica\l review of the existing public financial management (PFM) framework in Bangladesh, covering the government budget system, accounting systems, financial reporting, public asset management, state-owned enterprises (SOEs), contingent liabilities and fiscal risk disclosure with a view to evaluating-

- The extent to which the existing PFM system captures assets and liabilities;
- The adequacy of asset registries, valuation mechanisms, and reporting practices;
- The degree to which SOE obligations, PPP liabilities, and fiscal risks are reflected in
- financial statements.

This stage is designed to address the first research question.

Stage 2: Analysis of Institutional and Technical Constraints

In the second phase, the existing obstacles and limitations in implementing Balance Sheet-Oriented Fiscal Governance have been analyzed to assess-

- The limitations inherent in cash-based accounting;
- The absence of robust asset valuation and depreciation frameworks;
- The lack of an integrated asset database;
- Prevailing legal and institutional deficiencies;
- Weaknesses in SOE governance and fiscal risk oversight;
- Challenges associated with adopting IPSAS and allied international standards.

This stage is designed to address the study's second research question.

Stage 3: Assessing the Potential Impact of a Balance Sheet-Based Framework

In light of international experience and a literature review on Public Wealth Management, this stage assesses the potential policy and economic benefits of introducing a balance sheet-based public financial management (PFM) framework for Bangladesh, focusing on—

- Enhancing fiscal transparency;
- Improving public asset utilization efficiency;
- Strengthening sovereign asset-liability management;
- Advancing fiscal risk assessment capabilities;
- Fostering evidence-based policymaking and long-term fiscal sustainability.

This stage is designed to address the third research question.

4.0 Methodology

This study mainly follows a qualitative and analytical approach. It reviews the public financial management (PFM) framework of Bangladesh from the perspective of sovereign balance sheet analysis. In addition, an attempt is made to assess the kind of improvements and changes that can be brought about in the overall public financial management of the country by introducing a balance sheet-based revenue governance system.

Research Design- The study will follow a doctrinal, descriptive and policy analysis-based research design. In addition to analyzing Bangladesh's existing PFM framework, public asset management, accounting system and fiscal reporting framework, a comparative assessment will be made with international standards and best practices of IMF, World Bank, OECD and IPSAS.

Source of Data- The study relies predominantly on secondary data, drawn from the following principal sources:

- Budget documents of the Government of Bangladesh, Finance Division reports and Comptroller and Auditor General (CAG) publications;
- PEFA assessment reports, IMF Fiscal Monitor, and publications of the World Bank and OECD;
- IPSAS standards, policy papers, peer-reviewed research articles, and scholarly texts;
- Prevailing government legislation, regulatory instruments, and public financial policy frameworks.

Methods of Data Analysis-The study adopts a thematic and comparative analytical approach, first examining the extent to which Bangladesh's prevailing PFM framework remains deficitcentric and cash-based, followed by a systematic analysis of reporting deficiencies pertaining to government assets, liabilities, contingent liabilities, and fiscal risks.

In the next stage, this study investigates how a balance sheet-centric fiscal governance framework can contribute to enhancing fiscal transparency in Bangladesh, ensuring more effective management of public assets and strengthening the foundations of long-term fiscal stability by conducting a comparative analysis against established international best practices.

Limitations- In terms of limitations, this study is largely limited to the scope of the central government financial management framework. Due to the absence of a comprehensive national government asset database in Bangladesh, the analysis has been conducted mainly based on existing government reports, policy documents and secondary sources, which may not fully capture some aspects of the true scope and value of government assets.

5.0 Data Analysis and Findings

5.1 Mismatch of Records

Table-3 shows the data on Financial Assets (both Loans and Equity) from the Finance Accounts as well as from Finance Division Database-

Table-3 : Inconsistencies in Financial Asset Reporting

Fiscal Year ended on	Loans to Autonomous Bodies			Equity		
	Data from Finance Accounts	Data from FD Database	Difference	Data from Finance Accounts	Data from FD Database	Difference
30-06-2020	210,011	308,494	98,483	52,604	Equity Data not Available	
30-06-2021	219,175	257,750	38,575	62,912		
30-06-2022	230,854	286,032	55,178	70,660		
30-06-2023	241,681	499,197	257,516	78,049		
30-06-2024	260,990	334,231	73,241	86,104		
30-06-2025	289,478	360,843	71,365	92,085		

Source- iBAs++ Reports and Data Base of Finance Division (FD)

Analysis of the data above reveals the following observations-

Net worth of Bangladesh Government is being understated than the actual situation- Since a portion of the financial assets are not reflected in the Finance Accounts or are being undervalued, the Net Worth of the Government is being understated in the Balance Sheet.

The discussion on government debt and deficit in Bangladesh is largely focused on liabilities; but due to the absence of a full picture of the assets, the actual financial position of the government cannot be accurately assessed.

When the government provides loans or makes equity investments to an organization or corporation, it is necessary to assess the performance, recoverability and risk of those assets. But without a complete record of assets, Fiscal Risk Management remains virtually incomplete. As a result, it is difficult to identify the weak financial position or potential loss risk of a state-owned enterprise in a timely manner.

If the actual amount of government investment in SOEs is not known, then it is not possible to accurately assess the Return on Investment (ROI) or the effectiveness of the investment. Many SOEs may be using government capital year after year, but a full assessment of the amount of financial or economic benefits the government is receiving in return for that investment is missing.

If the financial wealth created by the current generation is not properly accounted for, future generations will receive an incomplete picture of the true wealth of the state. As a result, accountability for the preservation of state wealth and long-term asset management is weakened.

Finance accounts, even though audited, cannot be assumed to reflect all the financial assets of the government. Audits generally verify the accuracy of existing accounting records; however, audits cannot automatically correct assets that were not initially recorded or were omitted due to misclassification.

If information on very old debt and equity investments is not centrally stored, over time some financial assets may effectively become "lost assets" or "orphan assets". That is, while the government's ownership or debt remains legally intact, it is no longer actively pursued administratively. This is a well-known problem in public asset management in developing countries.

One of the policy conclusions of the study could be that there is a need to move towards Public Sector Balance Sheet Management in Bangladesh. While debt management is currently relatively strong, asset management has not been institutionalized to the same extent. As a result, the scope for the government to manage its assets and liabilities in an integrated manner is limited.

If the government's actual financial assets are significantly higher than the current accounts, then the conventional understanding of Bangladesh's government fiscal position may be partial. That is, there may be some fiscal space on the government's balance sheet that is not being properly considered in current policymaking. However, a full-scale Financial Asset Census or Asset Verification Exercise is needed to verify this possibility.

5.2 Return on Financial Assets

Table 4 summarizes the value of government financial assets—comprising loans and equity investments—and the returns[3] realized from these assets over the period under review.

Government Financial Assets and Investment Returns **(Fig in Crores)**

Financial Year ended on	Loan to Autonomous Bodies	Equity	Total Financial Assets	Interest Income	Cash Dividend	Stock Dividend	Total Dividend	Return on Loans to Autonomous Bodies	Return on Equity
30-06-2020	308,494	Not Available	308,494	300	181	1,728	1,909	0.097%	Cannot be calculated as equity data not available
30-06-2021	257,750		257,750	930	3,703	1,316	5,019	0.361%	
30-06-2022	286,032		286,032	439	1,078	668	1,746	0.153%	
30-06-2023	499,197		499,197	901	2,313	124	2,437	0.180%	
30-06-2024	334,231		334,231	595	4,763	379	5,142	0.178%	
30-06-2025	360,843		360,843	889			-	0.246%	

Source: Finance Division database

The study finds that Bangladesh's public financial management system has traditionally emphasized expenditure control rather than asset management. Consequently, government assets are often treated as expenditures and not systematically monitored or valued, limiting their visibility in fiscal policy and decision-making despite their growing scale.

---

[3] Returns were calculated using data from the Finance Division database, as these data are deemed to more closely reflect the actual value and performance of government financial assets than alternative sources. Balance at the beginning of fiscal year has been used.

The results of the "Invisible Wealth of Government" study indicate that a significant portion of the financial assets of the Bangladesh government have effectively become "Invisible Public Wealth". That is, although state ownership exists, centrally reliable information about the amount, value, returns and risks of those assets is absent. As a result, a clear and single answer to the question of how much wealth the government actually owns does not currently exist.

Over the past few decades, the government has accumulated a huge amount of debt and equity investment, but an asset management framework has not been developed at the same time. That is, Asset Creation has taken place, but Asset Management has not been institutionalized. This can be identified as a fundamental feature of public financial management in Bangladesh.

Although the government owns many institutions, the effective link between ownership rights and accountability is weak. There are limited institutional mechanisms for regular performance evaluations after investment, setting return targets, or preserving the value of assets. As a result, ownership of assets is not properly reflected in the responsibilities of ownership.

In Bangladesh, there is relatively clear information about the amount of government debt, but information about the related financial assets is much less reliable. This can lead to an incomplete perception of the government's financial position in the public sphere. That is, liabilities are visible, but assets are partially invisible. This can lead to a fiscal illusion about the government's true net financial position.

If the return on many public financial assets is lower than the interest rate on public debt, then from an economic perspective a portion of the state's capital can be considered to be tied up in low-productivity sectors. That is, the government is raising money at a higher cost, while earning a lower return on that money. This raises questions about the efficiency of asset management in the long run.

A larger policy message of the research could be: Bangladesh's public financial management is still mainly focused on Cash Management and Budget Management, but in the next stage, a transformation to a Wealth Management and Balance Sheet Management-focused system is needed.

This is consistent with the recent Public Sector Balance Sheet thinking of the IMF, OECD and World Bank.

Key Findings- The research findings indicate that the main problem with Bangladesh's public financial resources is not a lack of resources; rather, incomplete identification of resources, weak accounting, limited visibility and poor quality resource management. As a result, a significant portion of the state's real financial capacity remains outside the framework of government financial reporting and policymaking.

5.3 SOE Governance

Although state-owned enterprises (SOEs) in Bangladesh were established for the purpose of economic development and public service delivery, many have long been operating at a loss and are dependent on government subsidies for survival. This is placing additional pressure on government finances and posing a significant challenge to budget management. Despite huge government investment, many institutions fail to deliver expected financial returns, making them in many cases liabilities to the government rather than assets.

The money used to cover the losses[4] of these institutions could have yielded greater public welfare benefits if invested in sectors such as education, health, infrastructure, or social protection. In addition, regular government support also weakens the incentives for institutional efficiency improvement and reform. In addition, government guarantees, debt support, and recapitalizations may create additional financial risks in the future.

Therefore, improving the governance, efficiency, and accountability of state-owned enterprises and undertaking necessary structural reforms are crucial to ensure long-term financial stability.

5.4 Comparative International Analysis

Table 5 compares the position of Bangladesh with other countries to provide a clear picture of the country's current state of sovereign balance sheet and public asset-liability management. The comparison is based on publicly available information on the accounting practices, balance sheet disclosure practices, and IPSAS adoption status of different countries.

[4] Currently it requires nearly Tk. 50,000 crore to subsidize the SOEs.

Table 5: Comparative International Landscape of Sovereign Balance Sheet Governance

Country	Income Group	Accounting Basis	Balance Sheet Published ?	IPSAS Status	Key Lessons for Bangladesh
New Zealand	High	Full Accrual	Yes – since 1992	Full	Net worth as fiscal anchor; transparency mandated
Sweden	High	Full Accrual	Yes – ESA 2010	Full	Fiscal surplus rule built on balance sheet concept
Australia	High	Full Accrual	Yes	Full	Consolidated SOE reporting lifts net worth visibility
Chile	Upper-Mid	Modified Accrual	Partial	Partial	Sovereign wealth fund anchored to balance sheet
Rwanda	Low-Mid	Modified Cash	In progress	Partial	Phased IPSAS roadmap with SOE consolidation
India	Lower-Mid	Modified Cash	No	Minimal	Fragmented registers; SOE opacity obscures net worth
Bangladesh	Lower-Mid	Cash (GFS-based)	No	None	Central focus of this study — critical reform imperative

Sources: OECD (2017); IMF (2023); World Bank (2022); respective national treasury publications. Income classifications per World Bank Atlas Method (2023).

All high-income countries follow a fully accrual-based accounting system and publish consolidated sovereign balance sheets every year. However, they have had to undertake a series of reform programs over 10 to 15 years to reach this point. The experiences of Chile and Rwanda show that it is possible to make incremental progress despite institutional constraints. On the other hand, India's experience shows that incomplete asset databases and opacity of financial information of state-owned enterprises can hinder the reform process if they persist for a long time.

The position of Bangladesh is still quite lagging behind in comparison, which on the one hand highlights the urgent need for reform and on the other hand further clarifies the importance of the reform program proposed in this study.

6.0 Answers to Research Questions

Research Question 1: *To what extent does Bangladesh's existing public financial management (PFM) framework adequately reflect the overall financial position of the state—particularly both assets and liabilities?*

The study finds that the current PFM framework in Bangladesh provides a partial picture of the state's financial position. While information on government debt, budget deficit, and cash flow is relatively clear, it does not adequately reflect government assets, contingent liabilities, financial risks, and the financial position of state-owned enterprises. As a result, it is not possible to reliably determine the true net worth of the state.

Research Question 2: *What are the institutional, technical and policy constraints to incorporating a balance sheet approach into Bangladesh's fiscal and financial management?*

Key constraints include reliance on cash-based accounting, lack of a comprehensive government asset registry, weak asset valuation systems, fragmented databases, limited financial risk reporting and weak governance of state-owned enterprises. These limitations hinder the development of a comprehensive sovereign balance sheet.

Research Question 3*: How can a balance sheet-based public financial management system strengthen Bangladesh's financial sustainability, transparency and efficient and strategic management of public resources?*

A balance sheet-based PFM system is capable of providing an integrated picture of the government's assets, liabilities, and financial risks. This will enhance financial transparency, efficient use of government resources, strengthen financial risk management, and facilitate information-based policy formulation. At the same time, it will play a supportive role in long-term financial stability and effective public resource management.

7.0 Expected Contributions

7.1 Contribution to Academic Literature

This study contributes in several important areas. It attempts to fill an important gap in the Bangladeshi context, as research using the sovereign balance sheet approach is very limited. Besides, it assessed public financial management not only from the perspective of revenue, expenditure and budget deficit, but also from the perspective of how government assets and liabilities are being managed. This has enabled a more comprehensive picture of the true financial position of the state.

Third, it extends the theoretical framework of public wealth management to the specific institutional, legal, and political economy context of a lower-middle-income country preparing for LDC graduation. Fourth, it contributes a methodological template — combining doctrinal legal analysis, thematic content analysis, and comparative institutional analysis — that may inform comparable studies in other developing economy contexts.

7.2 Contribution to Policy and Practice

At the policy level, the research will generate: a comprehensive diagnostic assessment of Bangladesh's PFM framework for the Finance Division and Ministry of Finance; a normative framework for IPSAS-compliant financial reporting for the Comptroller and Auditor General; specific SOE governance and financial reporting reform recommendations; and context-specific technical assistance design guidance for international development partners including the IMF, World Bank, and Asian Development Bank. The research will be disseminated through peerreviewed publication, policy briefs targeted at the Finance Division and CPD, and conference presentations at venues including the IMF-OECD Public Financial Management Network.

7.3 Reform Roadmap

Drawing upon the comparative institutional analysis and diagnostic findings, the study will develop a four-phase reform roadmap for integrating sovereign balance sheet governance into Bangladesh's PFM architecture, spanning a ten-year horizon consistent with Vision 2041. Table 6 presents the indicative structure of this roadmap.

Table 6-Roadmap for Transition to Balance Sheet-Based Fiscal Governance in Bangladesh

Phase	Horizon	Reform Actions	Lead Institutions	Expected Output
Phase I Foundations	Yrs 1–2	• Legal mandate for accrual accounting • National Asset Registry Act • Capacity audit of Finance Division & CAG • iBAS++ system gap analysis	Finance Division; Cabinet Division; World Bank/IMF TA	Legal framework; baseline asset inventory pilot
Phase II Piloting	Yrs 3–4	• Pilot accrual accounts in 5 major ministries • Consolidate SOE financial statements • Adopt IPSAS 17 for physical assets • PPP contingent liability register	Finance Division; CAG Bangladesh; ADB support	First partial sovereign balance sheet; IPSAS-compliant pilot reports
Phase III Scaling	Yrs 5–7	• Full IPSAS adoption across central government • Consolidated whole-of-government balance sheet • SOE net worth reporting integrated into budget • Annual fiscal risk statement published	Finance Division; Planning Commission; NBR	Annual sovereign balance sheet; net worth as supplementary fiscal target
Phase IV Embedding	Yrs 8–10	• Net worth rule in Fiscal Responsibility Act • Public Wealth Fund for strategic asset management • Full IPSAS compliance certified by CAG • Parliamentary oversight strengthened	Parliament; Ministry of Finance; CAG Bangladesh	Full balance sheet governance; intergenerational equity anchored in law

Source: Author's framework, drawing upon OECD (2017), IMF (2021), World Bank (2022), and comparative country experience.

The proposed roadmap adopts a phased and institutionally sequenced approach, recognising that effective PFM reform requires gradual capacity development, legal preparedness, and sustained political commitment. The first phase focuses on establishing the legal framework and a comprehensive national asset registry. The second phase introduces pilot accrual accounting and initiates SOE financial statement consolidation. The third phase expands these reforms across government and produces the first consolidated whole-of-government balance sheet. The final phase institutionalises balance sheet governance, including the incorporation of a sovereign net worth rule within the fiscal framework. Successful implementation will depend on sustained political support, international technical assistance, and the gradual strengthening of accrual accounting capacity within key public financial institutions.

8.0 Conclusion & Recommendation

This study concludes that public financial management system of Bangladesh remains predominantly deficit- and cash-focused, with limited attention to the management and reporting of public assets. As a result, a significant portion of public wealth remains insufficiently identified, valued, and incorporated into fiscal decision-making. The findings suggest that the country's key challenge is not merely resource scarcity, but rather the limited visibility and management of existing public resources.

The study further demonstrates that adopting a sovereign balance sheet approach could strengthen fiscal transparency, improve public asset management, enhance fiscal risk oversight and support more informed policy decisions. Therefore, gradual reforms toward comprehensive asset registration, improved financial reporting, stronger SOE governance and greater alignment with international accounting standards are essential for advancing long-term fiscal sustainability and effective public wealth management in Bangladesh.

The research findings indicate that Bangladesh needs to move gradually towards a sovereign balance sheet-based framework to make its public financial management more transparent, effective and sustainable. Establishing a national asset register, adopting accrual accounting, integrating financial data of state-owned enterprises and including the state's net asset value as part of fiscal policymaking are important prerequisites for this transformation.

References

Allen, R., Hemming, R. and Potter, B.H. (2013) *The International Handbook of Public Financial Management*. Basingstoke: Palgrave Macmillan.

Ball, I., Buiter, W., Crompton, J., Detter, D. and Soll, J. (2024) *Public Net Worth: Accounting, Government and Democracy*. Cham: Palgrave Macmillan.

Blondal, J.R. (2003) 'Accrual Accounting and Budgeting: Key Issues and Recent Developments', *OECD Journal on Budgeting*, 3(1), pp. 43–59.

Chan, J.L. (2010) 'Accrual Accounting and Public Sector Financial Management', *Public Money & Management*, 30(2), pp. 63–68.

Comptroller and Auditor General of Bangladesh (2022) *Annual Audit Report on Government Accounts*. Dhaka: CAG Bangladesh.

Detter, D. and Fölster, S. (2015) *The Public Wealth of Nations: How Management of Public Assets Can Boost or Bust Economic Growth*. Basingstoke: Palgrave Macmillan.

Finance Division (2023) *Bangladesh Economic Review 2022–23*. Dhaka: Ministry of Finance, Government of Bangladesh.

Hughes, O.E. (2018) *Public Management and Administration*. 5th edn. London: Palgrave Macmillan.

International Monetary Fund (2014) *Government Finance Statistics Manual 2014*. Washington, DC: International Monetary Fund.

International Monetary Fund (2018) *Fiscal Monitor: Managing Public Wealth*. Washington, DC: International Monetary Fund.

International Monetary Fund (2021) *Public Investment Management Assessment (PIMA): Bangladesh*. Washington, DC: International Monetary Fund.

International Monetary Fund (2023) *Bangladesh: 2023 Article IV Consultation—Staff Report*. Washington, DC: International Monetary Fund.

IPSASB (2014) *Handbook of International Public Sector Accounting Pronouncements*. New York: International Federation of Accountants.

IPSASB (2020) *IPSAS 17: Property, Plant and Equipment (Revised)*. New York: International Federation of Accountants.

OECD (2017) *Accrual Practices and Reform Experiences in OECD Countries*. Paris: OECD Publishing.

Pattanayak, S. and Cooper, J. (2011) *Charting the Future of Government Accounting and Financial Reporting*. IMF Technical Notes and Manuals 11/04. Washington, DC: International Monetary Fund.

PEFA Secretariat (2018) *Bangladesh: Public Expenditure and Financial Accountability Assessment 2018*. Washington, DC: PEFA Secretariat.

Uddin, R.M.S., Sudath, K.E. and Luo, F. (2016) 'Investigating the Failure of State-Owned Enterprises (SOEs) of an Emerging Economy: A Comparative Case Study', *Studies in Business and Economics*, 11(2), pp. 115–129. doi:10.1515/sbe-2016-0026.

World Bank (2022) *Bangladesh Public Finance Review: Towards Fiscal Transparency and Sustainability*. Washington, DC: World Bank Group.

Bangladesh Public Administration Training Centre

Savar, Dhaka

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE : Research for Governance

MODULE NO: 5

DATE: 15.06.2026

Marks Obtained

Code No..............

....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Seal

Evaluation Department

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: Research for Governance

MODULE NO: 5

DATE: 15.06.2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
3. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Anisur Rahman (15504)

Roll No: 126

Seminar Paper

From Manual Oversight to Digital Governance: Reforming Raw Jute Stock Monitoring in Bangladesh

Abstract

Raw jute remains one of Bangladesh's most economically significant agricultural commodities, yet the institutional mechanisms responsible for monitoring its stock and market behaviour have received comparatively little scholarly attention. This paper examines the operational and governance limitations of the existing raw jute stock monitoring system and investigates how digital governance tools might address those limitations in a meaningful and sustainable way.

To ground the analysis in field-level realities, the study employed a mixed-methods research design. A structured perception survey was administered to 61 stakeholders drawn from across the raw jute supply chain -including farmers, licensed dealers, Department of Jute officials, jute mill representatives, and traders - alongside semi-structured Key Informant Interviews conducted with 16 respondents possessing direct regulatory or market experience.

The findings paint a consistent picture of a monitoring system that is under-resourced, heavily dependent on manual processes, and ill-equipped to generate the reliable, real-time stock information that effective market governance requires. An overwhelming majority of respondents - 80% - expressed reservations about the reliability of current stock data, while 93% identified the transparency deficit as a direct contributor to price volatility in the raw jute market. At the same time, there is a remarkably strong appetite for reform: 89% of respondents believed digital monitoring systems could meaningfully improve transparency and accountability, and 95% endorsed a phased approach to mandatory digital reporting.

Drawing on this convergent evidence, the paper puts forward seven policy recommendations, including the development of a centralized digital stock monitoring platform, a mobile application for field-level reporting, a public market information portal for farmers, and the establishment of a multi-stakeholder reform governance committee. The paper argues that the transition from manual oversight to digital governance is both technically feasible and stakeholder-endorsed - but will require phased implementation, sustained capacity-building, and careful management of the political economy of reform

Table of Contents

1. Introduction

(a) Background

Jute has historically been one of the most important agricultural commodities in Bangladesh and remains closely connected with the country's rural economy, industrial production, and export trade. Bangladesh is one of the world's leading producers of raw jute due to its favourable climatic conditions, fertile alluvial soil, and long tradition of jute cultivation. Commonly known as the 'golden fibre,' jute contributes to the livelihoods of millions of farmers, traders, transport workers, and industrial labourers. In recent years, growing global demand for biodegradable and environmentally friendly products has once again increased international interest in natural fibres such as jute.

Despite this potential, the jute sector continues to face several governance and market-related challenges. Weak regulatory oversight, dependence on traditional trading systems, lack of integrated market information, and limited modernization continue to affect the efficiency and competitiveness of the sector. One important issue in this regard is the monitoring and regulation of raw jute stocks.

The raw jute market in Bangladesh operates through a multi-layered supply chain involving farmers, forias, warehouse-owning dealers, traders, exporters, and jute mills. According to Section 5 of the Jute Act 2017, all traders and press owners engaged in the jute and jute products business are required to obtain a license in the prescribed manner. Jute farmers are exempted from licensing requirements for selling their own produced jute, although a license is mandatory for direct export. A licensed jute dealer with a warehouse is permitted to stock up to 500 maunds of raw jute for a maximum period of one month.

Despite these regulatory provisions, monitoring and enforcement mechanisms continue to rely largely on manual inspections and paper-based record-keeping carried out by a limited number of inspectors in the field offices of the Department of Jute. Furthermore, the absence of standardised guidelines for maintaining stock records and displaying business licenses has resulted in fragmented and difficult-to-verify stock information, with limited real-time accessibility. Consequently, policymakers and regulators often face significant challenges in accurately assessing actual stock positions, market dynamics, and overall market conditions.

At the same time, allegations of excessive stockpiling, speculative trading, and artificial price manipulation frequently arise during periods of market volatility and supply uncertainty.

Conflicting claims are often observed among traders, exporters, and mill owners regarding the actual availability of raw jute in the market. Farmers remain in a comparatively weaker position due to limited access to reliable market information, which restricts their bargaining capacity and market participation.

In recent years, the Government of Bangladesh has made significant progress in digital governance through the expansion of online public service delivery, digital licensing systems, and administrative automation initiatives. The Department of Jute has likewise introduced an online licensing system through the MyGov Platform. Despite these advancements, stock monitoring and market oversight mechanisms in the raw jute sector continue to depend predominantly on manual processes. There is therefore an increasing need to explore how digital governance mechanisms can enhance stock monitoring, improve market transparency, and strengthen accountability within the raw jute market.

(b) Problem Statement

The existing raw jute stock monitoring system in Bangladesh suffers from several operational, institutional, and governance-related limitations. Although the Jute Act 2017 provides legal provisions regarding licensing and stock management, effective enforcement and monitoring remain challenging because the current system is still largely manual, fragmented, and dependent on physical verification processes.

At present, stock-related information is primarily collected through field inspections, manual reporting, and paper-based record-keeping. The absence of standardised guidelines for maintaining stock records and displaying licences further complicates the monitoring process. Consequently, verifying the accuracy of stock declarations and ensuring compliance with prescribed stock limits often becomes difficult for regulatory authorities. Policymakers and administrators regularly lack reliable, real-time information regarding stock positions, market supply, and trading activities across the raw jute supply chain.

These limitations adversely affect overall market governance and transparency. The lack of an integrated and transparent stock information system increases the risk of information asymmetry, market uncertainty, speculative trading, and artificial price manipulation. During periods of price volatility, allegations of excessive stockpiling and artificial shortages are frequently raised by traders, exporters, mill owners, and other stakeholders. However, due to weak and fragmented monitoring mechanisms, such claims are often difficult to verify objectively. Farmers also remain disadvantaged because of their limited access to reliable market information, which reduces their bargaining power.

From an administrative perspective, the existing manual monitoring process is both time-consuming and resource-intensive. Officials responsible for market supervision often face practical difficulties in collecting, consolidating, and updating information from multiple trading points. The limited number of field-level inspectors further constrains effective monitoring and enforcement activities. As a result, regulatory responses and policy interventions are sometimes reactive rather than evidence-based.

Although the Government of Bangladesh has made notable progress in digital governance, digital transformation in raw jute stock monitoring remains limited. The Department of Jute has introduced online licensing through the MyGov Platform; however, existing digital initiatives mainly focus on licensing services rather than integrated market monitoring, stock management, and regulatory oversight. There is therefore a strong need to examine how digital governance mechanisms can improve raw jute stock monitoring and contribute to greater transparency, accountability, efficiency, and regulatory oversight.

(c) Objectives and Research Questions

General Objective

The main objective of this study is to examine how digital governance mechanisms can improve raw jute stock monitoring and strengthen transparency, accountability, and regulatory oversight in Bangladesh's raw jute market.

Specific Objectives

- To assess the existing practices and institutional limitations of raw jute stock monitoring in Bangladesh.
- To analyze how weaknesses in the existing monitoring system affect market transparency, regulatory oversight, and market stability in the raw jute sector.
- To explore the potential of digital governance tools and systems for improving stock monitoring and strengthening market governance in the raw jute market.

Research Questions

- What are the major institutional and operational limitations of the existing raw jute stock monitoring system in Bangladesh?
- How do weaknesses in the existing monitoring system affect market transparency, regulatory oversight, and market stability in the raw jute market?
- How can digital governance tools and systems improve stock monitoring and strengthen market governance in Bangladesh's raw jute sector?

(d) Justification / Rationale

This study is important from both policy and governance perspectives. The raw jute market directly affects millions of farmers, traders, exporters, industrial enterprises, and workers in Bangladesh. Problems relating to stock monitoring and market transparency therefore have broader implications for market stability, industrial production, and rural livelihoods.

The study is also relevant because Bangladesh is increasingly emphasizing digital governance and evidence-based public administration. While significant progress has been made in areas such as land management, online licensing, and digital service delivery, stock monitoring systems in the raw jute market still depend heavily on traditional methods. Exploring opportunities for digital governance reform may therefore contribute to improving transparency, accountability, and institutional efficiency in the sector.

From an administrative perspective, the study has practical significance for the Department of Jute, which is responsible for regulating raw jute trading and implementing stock-related provisions under the Jute Act 2017. A better understanding of existing monitoring limitations and digital reform opportunities may support future policy development and institutional strengthening.

The study is also academically relevant because there is limited research specifically focusing on digital governance and stock monitoring in Bangladesh's raw jute market. Therefore, the research may contribute to both policy discussion and the broader literature on digital governance, market regulation, and agricultural commodity governance.

2. Literature Review

Existing literature on agricultural commodity markets suggests that effective market governance largely depends on transparency, regulatory capacity, and information flow. In many developing countries, weak monitoring systems and fragmented market structures often create opportunities for information asymmetry, speculative practices, and market inefficiencies (World Bank, 2017).

The concept of digital governance has increasingly gained importance in public administration and regulatory management. Heeks (2006) argues that digital governance systems can improve transparency, reduce discretionary practices, and strengthen administrative efficiency if integrated properly into institutional structures. Similarly, Janssen and Estevez (2013) emphasise that data-driven governance can improve coordination among institutions and support evidence-based policymaking.

Several studies have highlighted the role of digital information systems in agricultural markets. Aker and Mbiti (2010) found that digital communication technologies significantly improved access to market information and reduced transaction costs in developing countries. Donner (2008) also notes that mobile-based information systems can strengthen market participation among small producers — a finding that has direct relevance for Bangladesh's smallholder jute farmers.

Within the Bangladeshi context, most research on the jute sector has focused on industrial decline, export competitiveness, and product diversification. Rahman (2018) identifies technological backwardness and weak institutional coordination as major challenges in the jute sector. Ahmed and Islam (2020) argue that dependence on intermediaries and weak market transparency continue to affect raw jute marketing efficiency.

Political Economy Analysis (PEA) is particularly relevant for understanding governance reform in the raw jute market. According to DFID (2009), PEA examines how stakeholder interests, institutional incentives, and power relations influence policy implementation and reform outcomes. The raw jute market involves multiple actors - including farmers, warehouse-owning dealers, exporters, jute mills, and regulatory agencies - who often possess competing economic interests regarding raw jute prices, exports, and market regulation.

The present study therefore draws on three interrelated analytical perspectives:

- Governance framework - to analyse transparency and regulatory oversight;
- Digital governance framework - to assess technology-based monitoring systems;
- Political Economy Analysis - to examine stakeholder interests and implementation challenges.

Existing literature suggests that digital governance may improve transparency and accountability, but successful implementation depends on institutional capacity, stakeholder cooperation, and political commitment. The primary data findings of this study - detailed in Section 4 - both validate and deepen these theoretical insights, confirming that capacity constraints and stakeholder resistance are the principal barriers to digital reform in Bangladesh's raw jute sector. Research specifically focusing on digital stock monitoring in Bangladesh's raw jute market remains limited, and this study seeks to address that gap.

3. Methodology

This study adopted a mixed-methods research design, combining a structured quantitative perception survey with qualitative Key Informant Interviews (KIIs). The mixed-methods approach was chosen because the research problem requires both quantitative measurement of stakeholder perceptions and qualitative depth to understand governance practices, institutional challenges, and field-level realities associated with raw jute stock monitoring in Bangladesh.

Primary data were collected through two instruments: (i) a structured Google Form-based perception survey administered to 61 respondents across four major stakeholder groups, and (ii) an open-ended qualitative survey administered to 16 respondents through Key Informant Interviews. Secondary information was also collected from the Jute Act 2017, government circulars, Department of Jute documents, academic journal articles, policy papers, and reports published by development organizations.

Quantitative Survey

The quantitative perception survey consisted of 17 structured questions covering stakeholder background, perceptions of the existing monitoring system, attitudes toward digital reform, and support for specific policy interventions. The survey was administered through Google Forms and distributed purposively to officials of the Department of Jute, licensed warehouse-owning dealers, traders and exporters, jute mill representatives, and farmer representatives. A total of 61 valid responses were received and analysed using descriptive statistics and frequency distributions.

Qualitative Survey (KII)

Semi-structured Key Informant Interviews were conducted with 16 respondents who possessed direct knowledge and practical experience relating to raw jute trading, stock management, regulation, or policy implementation. Interviews focused on four broad themes: existing monitoring practices, governance challenges, digital readiness, and reform feasibility. Responses were analyzed using thematic analysis, with findings organised into five dominant themes.

Sampling

Purposive sampling was used to select respondents from both surveys. Since the study is governance-oriented, the objective was not statistical representation but collection of informed and experience-based perspectives from relevant stakeholders across the raw jute supply chain and regulatory ecosystem.

Ethical Considerations and Limitations

Participation in interviews was voluntary and confidentiality was maintained where requested. The study faced certain limitations, including sensitivity of business-related stock data, time constraints for field investigation, and potential response bias among traders and mill owners. The use of multiple data sources and diverse stakeholder groups is expected to improve the reliability and credibility of findings.

Survey Component	Method	Respondents
Quantitative Survey	Structured Google Form (17 questions)	61
Qualitative Survey (KII)	Semi-structured Key Informant Interviews	16
Total Sample	Mixed Methods	77

4. Results and Findings

4.1 Survey Overview

This section presents a systematic analysis of primary data collected to address the three research questions of this study. Quantitative findings from the perception survey (n=61) are presented through frequency distributions and cross-tabulations, supported by graphical representations. Qualitative findings from the KII responses (n=16) are presented thematically. Together, the two datasets provide a convergent and mutually reinforcing evidence base for the policy recommendations presented in Section 5.

4.2 Respondent Profile

The quantitative survey sample (n=61) was drawn purposively to represent the key actors within the raw jute supply chain and regulatory ecosystem. The composition ensures that findings reflect both regulatory and market perspectives.

4.2.1 Stakeholder Composition

Farmer representatives constituted the largest segment of respondents (28 out of 61, or 46%), followed by Department of Jute (DoJ) officials (17, or 28%), and licensed dealers with warehouses (9, or 15%). Jute mill representatives (3), traders/exporters (1), and respondents who identified with multiple categories (3) made up the remaining 11%. This composition broadly reflects the demographic structure of the jute sector, where farmers are the most numerous actors, DoJ officials are the primary regulators, and dealers occupy a critical intermediary position in the supply chain.

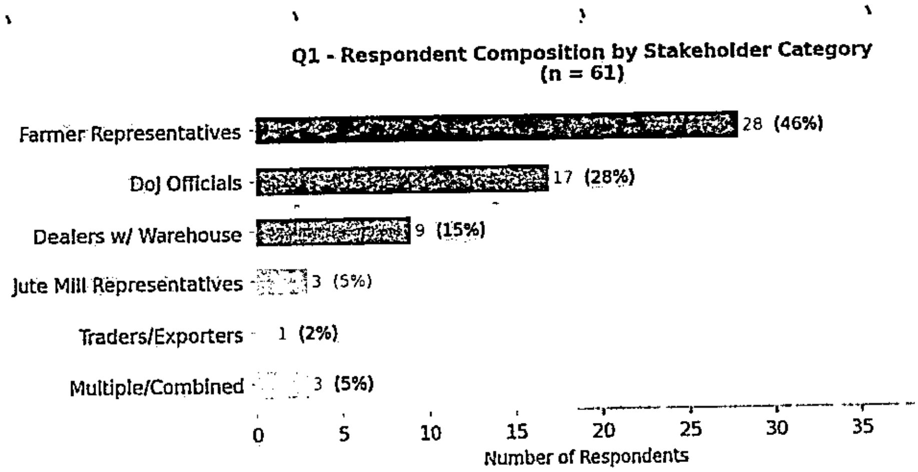


Figure 1: Respondent Composition by Stakeholder Category (Q1, n=61)

Stakeholder Category	Count	Percentage
Farmer Representatives	28	45.9%
DoJ Officials	17	27.9%
Dealers with Warehouse	9	14.8%
Jute Mill Representatives	3	4.9%
Traders/Exporters	1	1.6%
Multiple/Combined Categories	3	4.9%
Total	61	100%

4.2.2 Experience Level

A remarkable 61% of respondents (37 out of 61) reported more than 15 years of experience in the jute sector. An additional 28% (17 respondents) had 5 to 10 years of experience, while 8% (5 respondents) had 11 to 15 years, and only 3% (2 respondents) had fewer than 5 years. This high level of sectoral experience significantly strengthens the credibility of survey findings, as the majority of respondents offer perspectives grounded in long-term, direct observation of the monitoring system's evolution and limitations.

4.3 Assessment of the Existing Monitoring System

4.3.1 Overall Effectiveness Rating

Respondents were asked to rate the effectiveness of the existing raw jute stock monitoring system on a five-point scale (1 = Very Poor, 5 = Excellent). The distribution reveals a system widely regarded as underperforming. A combined 31% of respondents (19 out of 61) rated the system at 1 or 2, indicating poor or very poor performance. A further 38% (23 respondents) rated it at 3, reflecting only moderate effectiveness. Only 31% (19 respondents) rated the system at 4 or 5. The mean score approximates 2.9 out of 5.0, falling below the threshold of adequate governance performance.

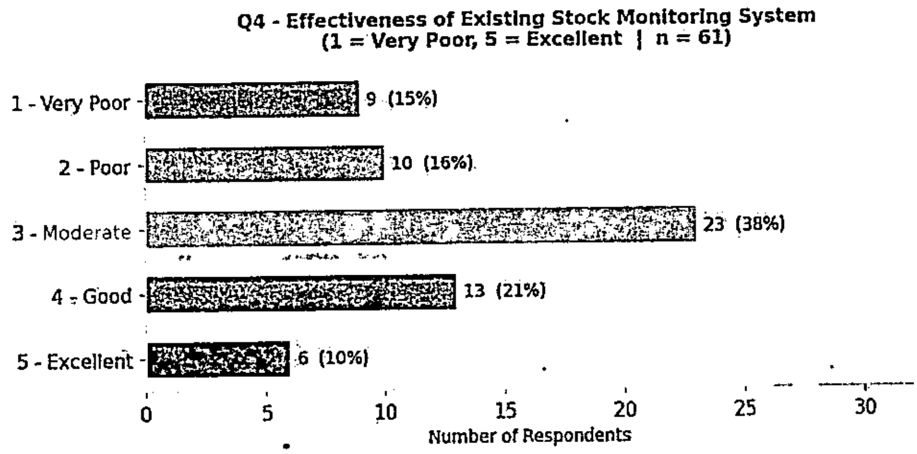


Figure 2: Q4 — Effectiveness Rating of Existing Stock Monitoring System (n=61)

4.3.2 Key Problems in the Existing System

The survey presented respondents with eight common operational problems, allowing multiple selections. Manpower shortage emerged as the most prevalent concern, cited by 49 out of 61 respondents (80%), making it the single most critical systemic constraint identified. This finding is consistent with the known resource limitations of the Department of Jute, which operates a nationwide regulatory mandate with comparatively limited field staffing. Manual record-keeping was the second most cited problem (22 mentions, 36%), followed by inaccurate or incomplete stock data (21, 34%), delayed information flow (20, 33%), and weak field-level supervision (19, 31%). Lack of transparency and poor inter-agency coordination were each identified by 15 respondents (25%), indicating systemic governance gaps beyond mere operational inefficiency.

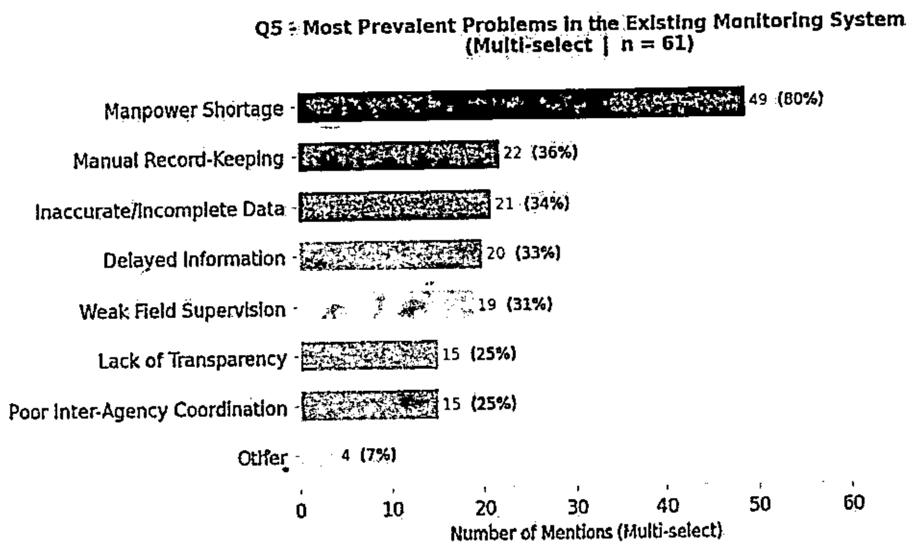


Figure 3: Q5 — Most Prevalent Problems in the Existing Monitoring System (Multi-select, n=61)

Problem Area	Mentions	% of Respondents
Manpower shortage	49	80.3%
Manual record-keeping	22	36.1%
Inaccurate/incomplete stock data	21	34.4%
Delayed information flow	20	32.8%
Weak field-level supervision	19	31.1%
Lack of transparency	15	24.6%
Poor inter-agency coordination	15	24.6%
Other issues	4	6.6%

4.3.3 Reliability of Current Stock Data

When asked about the reliability of stock information generated under the existing system, a significant majority expressed skepticism. Only 8% of respondents (5 out of 61) rated current stock data as 'highly reliable.' The largest segment - 67% (41 respondents) - described data as only 'moderately reliable,' while 15% (9 respondents) considered it 'slightly reliable' and 10% (6 respondents) deemed it 'unreliable.' In aggregate, 80% of respondents have reservations about the reliability of current stock declarations, underscoring the governance gap that weakens both regulatory enforcement and market confidence.

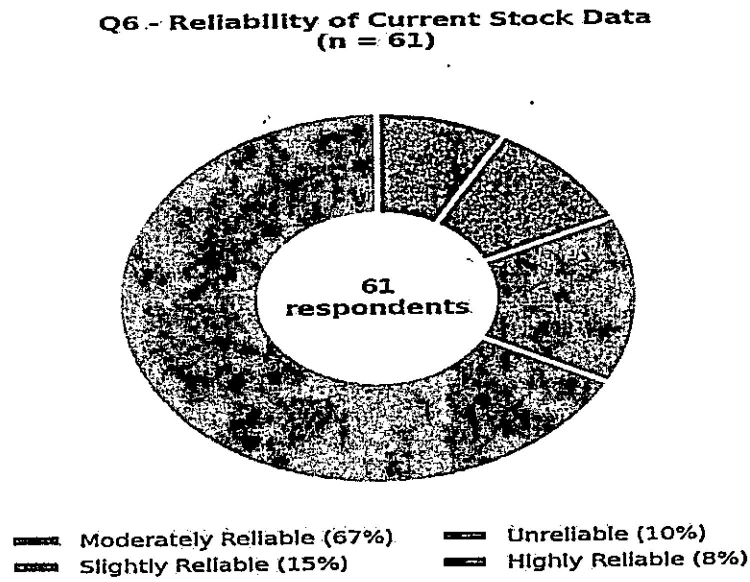


Figure 4: Q6 — Perceived Reliability of Current Stock Data (n=61)

4.3.4 Who is Most Adversely Affected?

When asked which stakeholder group suffers most from monitoring system weaknesses, 47% of respondents (29 out of 61) identified farmers as the primary victims. A further 34% (21 respondents) believed all stakeholders are equally affected. Only 13% (8 respondents) pointed to jute mills, and 5% (3 respondents) to traders. The identification of farmers as the primary victims is analytically significant: farmers operate at the weakest information position within the supply chaih, lacking access to real-time stock and price data, and are therefore most vulnerable to intermediary exploitation and information asymmetry.

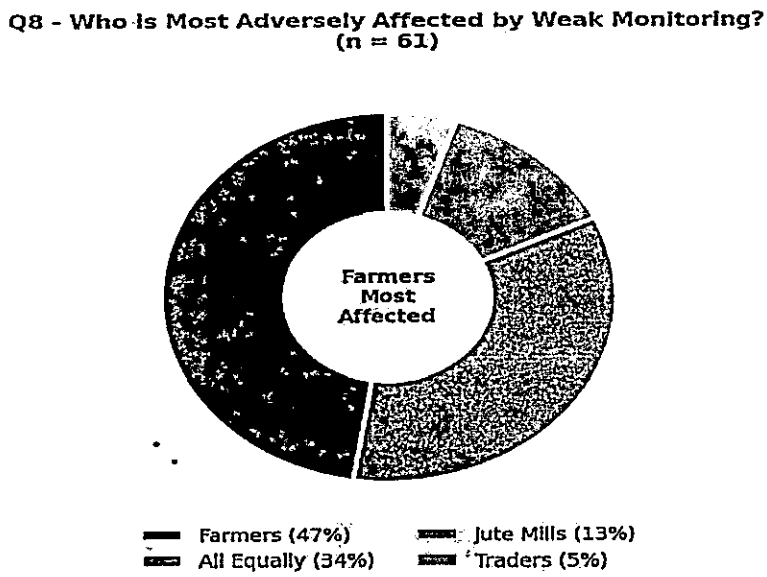


Figure 5: Q8 — Stakeholder Most Adversely Affected by Weak Monitoring (n=61)

4.4 Transparency Deficit and Digital Governance Potential

4.4.1 Transparency Gap and Price Volatility

A strong and consistent finding of this study is the perceived connection between transparency deficits and price volatility in the raw jute market. When asked whether the lack of market transparency contributes to price fluctuations, an overwhelming 93% of respondents responded affirmatively. Of these, 67% (41 respondents) responded 'Yes, significantly,' and 28% (17 respondents) responded 'Yes, partially.' Only 3% were uncertain, and a mere 2% disagreed. This near-consensus - spanning all stakeholder groups - provides compelling empirical support for transparency-focused reform as a policy priority.

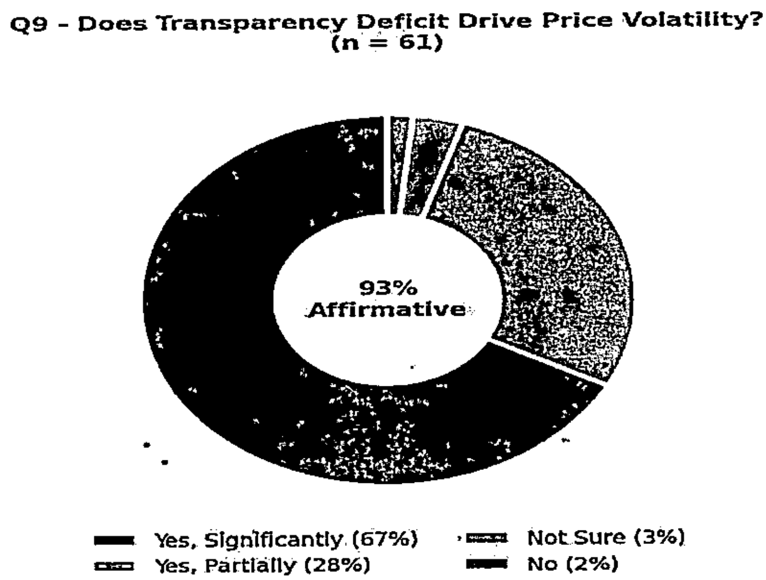


Figure 6: Q9 — Does Transparency Deficit Drive Price Volatility? (n=61)

Key Finding: 93% of respondents confirm that lack of transparency significantly or partially contributes to price volatility - a near-universal consensus across all stakeholder groups

4.4.2 Digital Monitoring as a Transformative Solution

Respondents were asked whether they believed a digital stock monitoring system could improve transparency and accountability in the raw jute market. The response was strongly affirmative: 56% (34 respondents) expressed confidence that digital systems could improve the situation 'greatly,' and a further 33% (20 respondents) believed improvement would be 'moderate.' Only 7% were uncertain, and just 2% - one respondent - disagreed. The combined affirmative response of 89% represents a clear mandate for digital reform from stakeholders who are directly embedded in the monitoring system's daily realities.

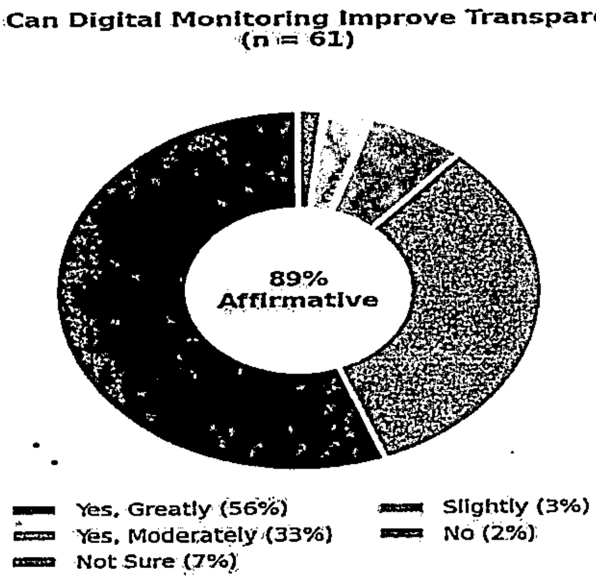


Figure 7: Q10 — Can Digital Monitoring Improve Transparency and Accountability? (n=61)

Response	Count	Percentage
Yes, greatly	34	55.7%
Yes, moderately	20	32.8%
Not sure	4	6.6%
Only slightly	2	3.3%
No	1	1.6%

4.4.3 Preferred Digital Tools

Respondents were offered a choice of digital tools and asked to identify which would be most effective for improving stock monitoring. Mobile applications received the highest number of mentions (49 out of 61, or 80%), reflecting widespread smartphone adoption and the practical advantages of field-based mobile reporting. Online reporting platforms were the second most preferred option (25 mentions, 41%), followed by automated licensing integration (17, 28%), a centralized stock database (8, 13%), real-time digital dashboards (5, 8%), and SMS-based reporting (4, 7%). The strong preference for mobile applications is particularly noteworthy given the geographic dispersal of dealers and warehouses across rural jute-producing districts.

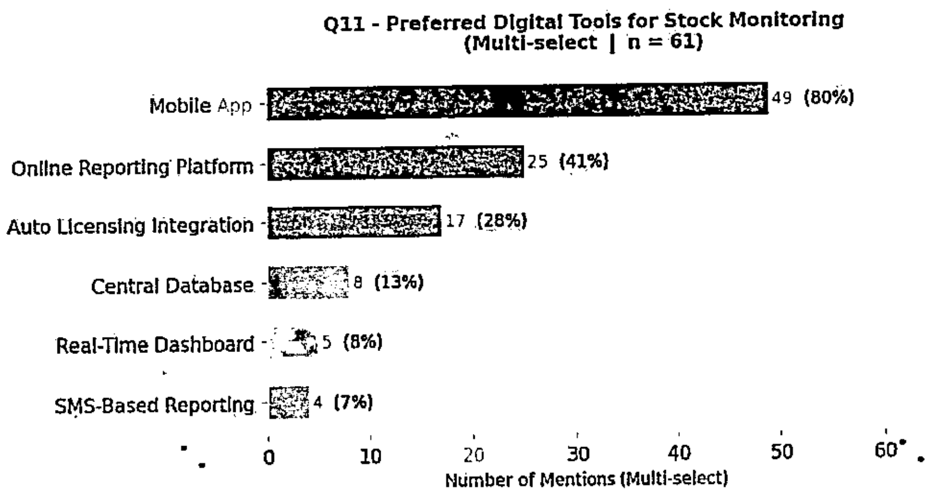


Figure 8: Q11 — Preferred Digital Tools for Stock Monitoring (Multi-select, n=61)

4.4.4 Sector Readiness for Digitalization

Despite strong support for digital reform, respondents expressed measured optimism about sector readiness. On a five-point readiness scale (1 = Not Ready, 5 = Fully Ready), 33% rated readiness at the moderate midpoint (Score 3). A combined 33% rated readiness at 1 or 2 (not ready or slightly ready), while 30% rated it at 4 or 5. This approximately symmetric distribution around the median suggests that the jute sector stands at a critical inflection point: significant readiness constraints remain, but meaningful capacity exists to begin a phased digital transition.

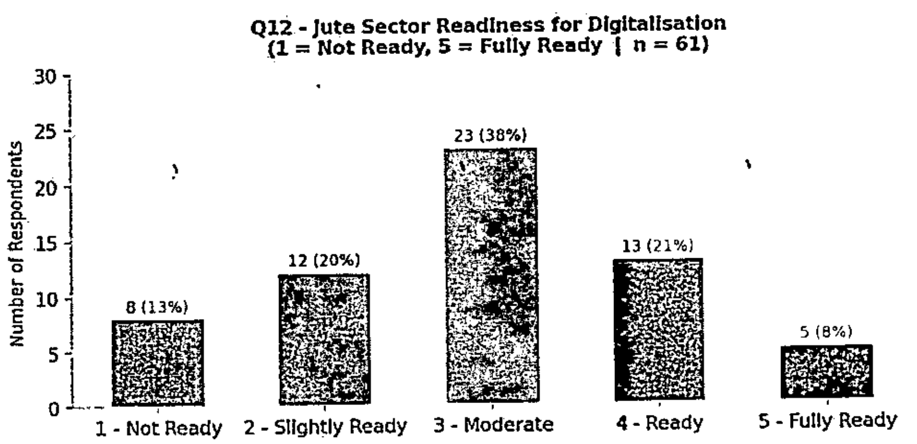


Figure 9: Q12 — Sector Readiness for Digitalization (n=61)

4.5 Implementation Challenges and Priority Reforms

4.5.1 Barriers to Digital Implementation

Respondents identified multiple challenges to implementing a digital monitoring system. Lack of technological skills and digital literacy was identified by 45 respondents (74%), making it the leading barrier. Institutional capacity constraints — insufficient hardware, software, and trained personnel within regulatory agencies — were cited by 31 respondents (51%). Stakeholder resistance, including probable opposition from large traders and mill owners who benefit from the opacity of the current system, was identified by 25 respondents (41%). Policy coordination gaps (14 respondents, 23%), weak rural internet connectivity (9 respondents, 15%), and financial costs (5 respondents, 8%) completed the challenge landscape.

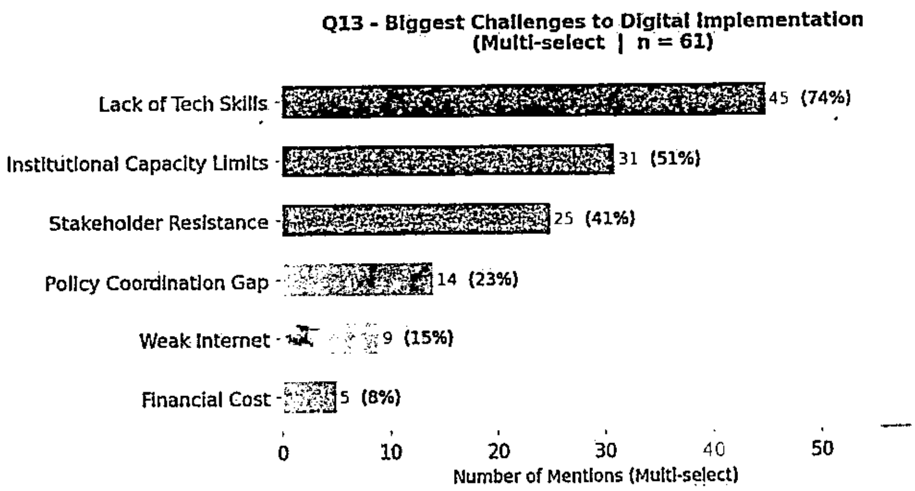


Figure 10: Q13 — Biggest Challenges to Digital Implementation (Multi-select, n=61)

4.5.2 Priority Reforms

Respondents identified the reforms that should receive the highest priority. Improved field-level supervision topped the list (35 mentions, 57%), affirming that even in the context of digital reform, respondents recognise the continuing importance of human monitoring capacity. Better stakeholder coordination (20 mentions, 33%) and real-time stock databases (17 mentions, 28%) followed closely, along with integrated digital reporting (17, 28%), stronger law enforcement (14, 23%), and improved market information systems (13, 21%).

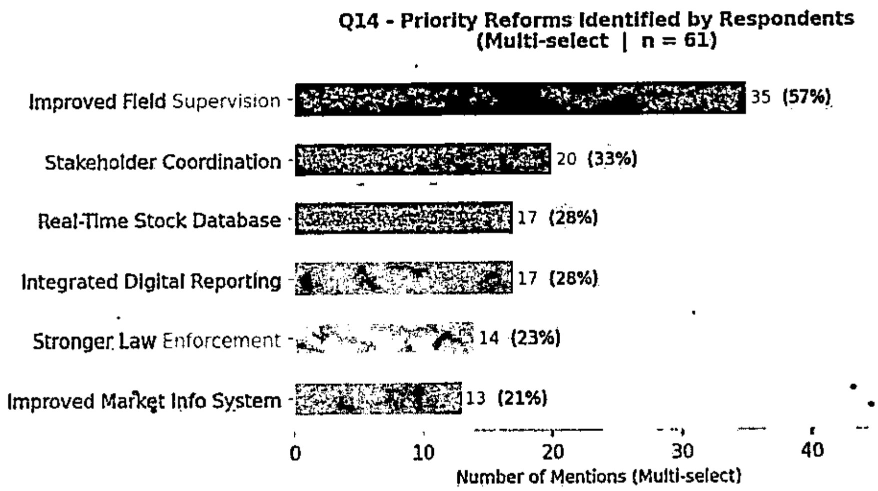


Figure 11: Q14 — Priority Reforms Identified by Respondents (Multi-select, n=61)

4.5.3 Support for Phased Digital Reporting

In perhaps the most decisive finding of the quantitative survey, 95% of respondents expressed support for the phased introduction of mandatory digital stock reporting. Specifically, 59% (36 respondents) strongly supported this approach, and 36% (22 respondents) expressed support. Only 3% were neutral, and just 2% strongly opposed the measure. This near-universal endorsement — spanning all stakeholder categories, including dealers who would directly bear the compliance burden — provides a strong policy mandate for proceeding with phased implementation.

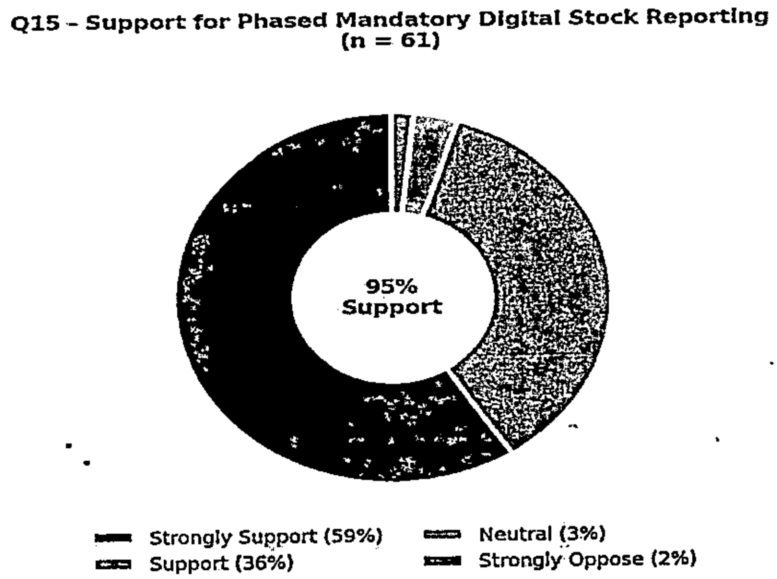


Figure 12: Q15 — Support for Phased Mandatory Digital Stock Reporting (n=61)

Policy Signal: 95% of respondents- including dealers who will bear the compliance burden - support phased mandatory digital reporting. This cross-stakeholder consensus represents an unusually clear mandate for reform.

4.6 Qualitative Survey: Thematic Analysis

The qualitative survey (n=16) collected detailed responses from KII respondents representing DoJ officials, dealers, farmer representatives, mill representatives, and traders. Thematic analysis of these responses yielded five dominant themes, which are presented below.

Theme 1: Manual and Fragmented Record-Keeping

All qualitative respondents confirmed that stock information is currently maintained through paper registers, ledger books, and physical inspection notes, with no standardisation across trading points or administrative levels. Stock declarations are collected during periodic field visits and consolidated manually at the district office level — a process susceptible to transcription errors, delays, and selective reporting. There is no mechanism to cross-verify declared stock with actual warehouse holdings in real time.

Theme 2: Regulatory Gaps and Enforcement Limitations

Despite the clear provisions of the Jute Act 2017, enforcement is widely acknowledged to be inconsistent and resource-constrained. KII respondents from both regulatory and market backgrounds noted that the Department of Jute lacks sufficient field inspectors relative to the number of licensed dealers and trading points. Compliance monitoring is described as 'sporadic' and 'largely reactive,' with inspections typically triggered by market complaints rather than routine oversight schedules. The absence of standardized license display and record-keeping formats further complicates verification during field inspections.

Theme 3: Information Asymmetry and Farmer Vulnerability

Farmer representatives provided the most vivid accounts of information asymmetry. Without access to aggregate stock data or real-time price information, farmers sell their jute to local forias at prices dictated by the intermediary. KII responses confirm that dealers, exporters, and mills routinely exchange informal market intelligence, while farmers remain at the informational periphery. Digital stock monitoring could partially disrupt this asymmetry by making aggregate supply data publicly accessible.

Theme 4: Support for Digital Reform, Tempered by Practical Cautions

KII respondents across stakeholder groups broadly endorsed digital monitoring, but with substantive conditions. Successful implementation was seen as contingent on: adequate capacity building for DoJ field staff and market actors; stable internet and mobile connectivity in rural jute-growing areas; clear and standardized reporting guidelines; and sustained political commitment to implementation - including resistance to pressure from large market actors who may prefer opacity. Several respondents suggested piloting digital monitoring in districts with stronger digital infrastructure before wider rollout.

Theme 5: Political Economy of Reform - Resistance and Capture

Multiple KII respondents flagged the risk that large traders and mill owners may resist or seek to capture digital reform processes. Speculative stockpiling occurs under the radar of the current manual system and benefits well-connected market actors. This political economy analysis confirms that transparency reform, by definition, threatens the informational advantages of those who benefit from opacity — making coalition-building, graduated compliance obligations, and robust inter-ministerial coordination essential features of the reform design.

5. Conclusion

This seminar paper has examined the institutional and operational limitations of Bangladesh's existing raw jute stock monitoring system and presented evidence-based pathways for reform through digital governance. Drawing on a mixed-methods dataset of 77 respondents - 61 quantitative survey participants and 16 Key Informant Interview respondents - the paper provides systematic empirical support for the argument that the current monitoring system is institutionally inadequate, and that digital governance mechanisms offer a technically feasible and stakeholder-endorsed pathway for transformation.

The quantitative findings reveal a near-consensus that the existing system is under-resourced, data-poor, and transparency-deficient. Specifically, 80% of respondents expressed reservations about the reliability of current stock data; 93% linked transparency gaps to price volatility; 89% believed digital systems could significantly improve monitoring; and 95% endorsed a phased approach to mandatory digital reporting. The qualitative findings contextualise these numbers within a political economy framework: manual systems structurally benefit actors with informal market intelligence, farmers are systematically disadvantaged by information asymmetry, and reform will require managing resistance from well-positioned market actors alongside building technical and institutional capacity.

The paper's three research questions have been fully addressed. First, the major institutional and operational limitations of the existing monitoring system are manpower shortage, manual record-keeping, fragmented data, and weak enforcement - all confirmed by both quantitative and qualitative data. Second, weaknesses in the monitoring system contribute to price volatility and market instability primarily through information asymmetry, as large traders and mills exploit their informational advantage over smallholder farmers. Third, digital governance tools - especially mobile applications, online reporting platforms, and centralized databases - offer practical and stakeholder-endorsed mechanisms for reform, subject to phased implementation and sustained capacity-building.

The seven policy recommendations offered in this paper are directly grounded in primary evidence and reflect the practical wisdom of stakeholders with direct experience in Bangladesh's raw jute sector. Taken together, they constitute a coherent reform agenda that is ambitious yet achievable - provided the transition from manual oversight to digital governance is managed through phased implementation, inclusive stakeholder engagement, institutional capacity building, and sustained political commitment.

6. Policy Recommendations

Based on the convergent evidence from both the quantitative perception survey and the qualitative KII responses, the following seven evidence-grounded recommendations are proposed for transforming the raw jute stock monitoring system in Bangladesh:

Recommendation 1: Develop a Centralized Digital Stock Monitoring Platform

The Department of Jute should develop an integrated digital platform - hosted on the existing MyGov infrastructure- enabling all licensed dealers, press owners, and exporters to submit monthly stock declarations online. The platform should incorporate a real-time dashboard for regulatory officials at district and central levels, with automated alerts when declared stocks approach the 500-maund statutory ceiling. Integration with the existing online licensing system would enable cross-verification of stock reports against licensee records.

Recommendation 2: Launch a Mobile Application for Field Reporting

Given that 80% of respondents identified mobile applications as the most preferred digital tool, development of a bilingual (Bengali/English) mobile application for stock reporting should be prioritized. The application should support geotagged photo submissions of warehouse interiors, offline data capture with automatic synchronization when connectivity is restored, and SMS confirmation receipts to maintain audit trails in areas with limited internet access.

Recommendation 3: Adopt a Three-Phase Implementation Roadmap

Phase 1 (Year 1): Voluntary digital pilot in major jute districts including Faridpur, Khulna, Jamalpur, and Manikganj, with full technical support. Phase 2 (Year 2): Mandatory digital reporting for all licensed dealers with warehouses, with a capacity-building grace period for compliance. Phase 3 (Year 3): Full compliance requirement with graduated financial penalties for persistent non-reporting. This phased approach is explicitly endorsed by 95% of survey respondents.

Recommendation 4: Issue Standardized Stock Declaration Guidelines

The Ministry of Textiles and Jute should issue a Statutory Regulatory Order (SRO) prescribing standardised formats for stock registers, mandatory display of licences with verifiable QR codes, and clear protocols for the frequency, format, and cross-verification of stock declarations. These guidelines should be co-developed with stakeholder representatives to ensure practical applicability and broad buy-in from market actors.

Recommendation 5: Strengthen Department of Jute Field Capacity

The survey's identification of manpower shortage as the primary systemic problem (80% of respondents) demands urgent attention. Targeted recruitment of field inspectors for major jute districts, digital literacy training for existing staff, and provision of mobile devices and internet connectivity to district offices are immediate priorities. Field inspectors should also be trained in data validation protocols to enable cross-checking of digital declarations against physical inspections.

Recommendation 6: Create a Public Market Information Portal for Farmers

To address the information asymmetry that disproportionately harms farmers - identified by 47% of respondents as the most affected group - the Department of Jute should publish a publicly accessible weekly market bulletin covering regional price trends, aggregate stock estimates, and licensed trader directories. Distribution through both a web portal and SMS broadcast to registered farmer cooperatives and groups would ensure accessibility beyond digital infrastructure constraints.

Recommendation 7: Establish a Multi-Stakeholder Reform Governance Committee

Given the political economy risks identified in both quantitative and qualitative data - particularly stakeholder resistance and the potential for elite capture - the reform process must be institutionally anchored. A multi-stakeholder coordination committee, chaired by the Director General of Jute, with representation from farmer organizations, licensed dealers, jute mills, exporters, and the Ministry of ICT, should oversee implementation, resolve disputes, and ensure equitable access to digital monitoring infrastructure.

Declaration: I declare that this paper contains neither any plagiarized material or nor any AI generated content. The analysis is authors contribution. Any deviation from this is author's liability.

References

Ahmed, S. and Islam, M. T. (2020) 'Challenges of Raw Jute Marketing in Bangladesh', Bangladesh Development Studies, 43(2), pp. 45–67.

Aker, J. C. and Mbiti, I. M. (2010) 'Mobile Phones and Economic Development in Africa', Journal of Economic Perspectives, 24(3), pp. 207–232.

DFID (2009) Political Economy Analysis: How To Note. London: Department for International Development.

Donner, J. (2008) 'Research Approaches to Mobile Use in the Developing World: A Review of the Literature', The Information Society, 24(3), pp. 140–159.

Government of Bangladesh (2017) Jute Act 2017. Dhaka: Ministry of Textiles and Jute.

Heeks, R. (2006) Implementing and Managing e-Government. London: SAGE Publications.

Janssen, M. and Estevez, E. (2013) 'Lean Government and Platform-Based Governance', Government Information Quarterly, 30, pp. S1–S8.

Rahman, M. (2018) 'Competitiveness of Bangladesh Jute Industry in the Global Market', Asian Business Review, 8(1), pp. 15–24.

World Bank (2017) ICT in Agriculture: Connecting Smallholders to Knowledge, Networks, and Institutions. Washington DC: World Bank.

Annexture I

Quantitative Perception Survey Form

এই সমীক্ষার উদ্দেশ্য হলো বর্তমান কাঁচা পাটের মজুদ পর্যবেক্ষণ ব্যবস্থা এবং ডিজিটাল গভর্ন্যান্সের মাধ্যমে এর সম্ভাব্য উন্নয়ন সম্পর্কে বিভিন্ন অংশীজনের মতামত সংগ্রহ করা

১. অংশীজনের ধরন *

- [ ] পাট অধিদপ্তরের কর্মকর্তা
- [ ] ডিলার অব জুট (গুদামসহ)
- [ ] ব্যবসায়ী/রপ্তানিকারক
- [ ] পাটকল প্রতিনিধি
- [ ] কৃষক প্রতিনিধি

২. পাট খাতে অভিজ্ঞতার মেয়াদ *

- ◯ ৫ বছরের কম
- ◯ ৫-১০ বছর
- ◯ ১১-১৫ বছর
- ◯ ১৫ বছরের বেশি

৩. এলাকা/অবস্থান *

Type here...

বিদ্যমান তদারকি ব্যবস্থা

৪. বিদ্যমান কাঁচা পাট মজুদ তদারকি ব্যবস্থার কার্যকারিতা আপনি কীভাবে মূল্যায়ন করবেন? *

1 2 3 4 5

৫. বর্তমান তদারকি ব্যবস্থায় কোন সমস্যাগুলো সবচেয়ে বেশি দেখা যায়? *

- [ ] তথ্য প্রদানে বিলম্ব
- [ ] ভুল বা অসম্পূর্ণ মজুদ তথ্য
- [ ] স্বচ্ছতার অভাব
- [ ] দুর্বল মাঠ পর্যায়ের তদারকি
- [ ] ম্যানুয়াল রেকর্ড সংরক্ষণ
- [ ] সংস্থাগুলোর মধ্যে সমন্বয়ের অভাব
- [ ] জনবলের স্বল্পতা
- [ ] অন্যান্য

৬. বর্তমান মজুদ সংক্রান্ত তথ্য কতটুকু নির্ভরযোগ্য বলে আপনি মনে করেন? *

- ◯ অত্যন্ত নির্ভরযোগ্য
- ◯ মাঝারি পর্যায়ে নির্ভরযোগ্য
- ◯ সামান্য নির্ভরযোগ্য
- ◯ নির্ভরযোগ্য নয়

সুশাসন ও প্রশাসনিক চ্যালেঞ্জ

৭. আপনি কতটুকু একমত যে তদারকি ব্যবস্থার দুর্বলতা বাজারের অস্থিতিশীলতা সৃষ্টি করে? *

1 2 3 4 5

৮. মজুদ তদারকি ব্যবস্থার দুর্বলতার কারণে কোন অংশীজন সবচেয়ে বেশি ক্ষতিগ্রস্ত হয়? *

- ◯ কৃষক
- ◯ ব্যবসায়ী
- ◯ রপ্তানিকারক
- ◯ পাটকল
- ◯ সরকারি সংস্থা

◯ সকল অংশীজন সমানভাবে

৯. বাজারে স্বচ্ছতার অভাব মূল্য ওঠানামায় ভূমিকা রাখে বলে কি আপনি মনে করেন? *

◯ হ্যাঁ, উল্লেখযোগ্যভাবে
◯ হ্যাঁ, আংশিকভাবে
◯ নিশ্চিত নই
◯ না

ডিজিটাল গভর্নেন্স ও প্রস্তুতি

১০. ডিজিটাল মজুদ তদারকি ব্যবস্থা বাজারের স্বচ্ছতা ও জবাবদিহিতা বৃদ্ধি করতে পারে বলে কি আপনি মনে করেন? *

◯ হ্যাঁ, অনেক বেশি
◯ হ্যাঁ, মাঝারি পর্যায়ে
◯ সামান্য
◯ নিশ্চিত নই
◯ না

১১. পাট মজুদ তদারকি উন্নয়নের জন্য কোন ডিজিটাল টুল সবচেয়ে কার্যকর হবে? *

☐ মোবাইল অ্যাপ
☐ অনলাইন রিপোর্টিং প্ল্যাটফর্ম
☐ কেন্দ্রীয় তথ্যভান্ডার
☐ এসএমএসভিত্তিক রিপোর্টিং
☐ রিয়েল-টাইম ডিজিটাল ড্যাশবোর্ড
☐ স্বয়ংক্রিয় লাইসেন্সিং সমন্বয়

১২. ডিজিটাল তদারকি ব্যবস্থার জন্য পাট খাত কতটুকু প্রস্তুত বলে আপনি মনে করেন? *

1	2	3	4	5

সংস্কার বাস্তবায়নের সম্ভাবনা

১৩. ডিজিটাল মজুদ তদারকি ব্যবস্থা বাস্তবায়নের সবচেয়ে বড় চ্যালেঞ্জ কী হতে পারে? *

- [ ] প্রযুক্তিগত দক্ষতার অভাব
- [ ] অংশীজনদের অনীহা বা প্রতিরোধ
- [ ] প্রাতিষ্ঠানিক সক্ষমতার সীমাবদ্ধতা
- [ ] দুর্বল ইন্টারনেট সংযোগ
- [ ] আর্থিক ব্যয়
- [ ] নীতিগত সমন্বয়ের অভাব

১৪. কোন সংস্কারকে সর্বোচ্চ অগ্রাধিকার দেওয়া উচিত? *

- [ ] রিয়েল-টাইম মজুদ তথ্যভান্ডার
- [ ] উন্নত মাঠ পর্যায়ের তদারকি
- [ ] সমন্বিত ডিজিটাল রিপোর্টিং
- [ ] উন্নত বাজার তথ্য ব্যবস্থা
- [ ] শক্তিশালী আইন প্রয়োগ ব্যবস্থা
- [ ] অংশীজনদের মধ্যে সমন্বয়

১৫. বাধ্যতামূলক ডিজিটাল মজুদ রিপোর্টিং ধীরে ধীরে চালুর পক্ষে কি আপনি সমর্থন করবেন? *

- ( ) দৃঢ়ভাবে সমর্থন করি
- ( ) সমর্থন করি
- ( ) নিরপেক্ষ
- ( ) বিরোধিতা করি
- ( ) দৃঢ়ভাবে বিরোধিতা করি

অতিরিক্ত মতামত

১৭. কাঁচা পাট মজুদ তদারকিতে স্বচ্ছতা ও দক্ষতা বৃদ্ধির জন্য আপনার সুপারিশ প্রদান করুন। *

Type here...

Submit

Annexture II

Qualitative Interview Form

এই সমীক্ষার উদ্দেশ্য হলো বর্তমান কাঁচা পাটির মজুদ পর্যবেক্ষণ ব্যবস্থা এবং ডিজিটাল গভর্ন্যন্সের মাধ্যমে এর সম্ভাব্য উন্নয়ন সম্পর্কে বিভিন্ন অংশীজনের মতামত সংগ্রহ করা

সেকশন ১: প্রাথমিক তথ্য

১. উত্তরদাতার নাম *

Type here...

২. পদবি/পেশা *

Type here...

৩. প্রতিষ্ঠান/ব্যবসার ধরন *

Type here...

৪. অংশীজনের ধরন *

- [ ] পাট অধিদপ্তরের কর্মকর্তা
- [ ] ডিলার অব জুট (গুদামসহ)
- [ ] ব্যবসায়ী/রপ্তানিকারক
- [ ] পাটকল প্রতিনিধি
- [ ] কৃষক প্রতিনিধি

- [ ] অন্যান্য

৫. পাট খাতে অভিজ্ঞতার মেয়াদ *

- ( ) ৫ বছরের কম
- ( ) ৫-১০ বছর
- ( ) ১১-১৫ বছর
- ( ) ১৫ বছরের বেশি

সেকশন ২: বিদ্যমান মনিটরিং কার্যক্রম

৬. কার্যক্রমের এলাকা/অবস্থান *

Type here...

৭. আপনার এলাকা বা প্রতিষ্ঠানে বর্তমানে কাঁচা পাটের মজুদ কীভাবে তদারকি বা ব্যবস্থাপনা করা হয় তা বর্ণনা করুন। *

Type here...

৮. মজুদ সংক্রান্ত তথ্য সংরক্ষণ ও যাচাইয়ের জন্য সাধারণত কী ধরনের পদ্ধতি ব্যবহার করা হয়? *

Type here...

সেকশন ৩: সুশাসন ও প্রশাসনিক চ্যালেঞ্জ

৯. বর্তমান পাট মজুদ তদারকি ব্যবস্থার প্রধান সীমাবদ্ধতা বা দুর্বলতাগুলো কী? *

Type here...

১০. আপনার মতে, তদারকি ব্যবস্থার সীমাবদ্ধতা বাজারের স্বচ্ছতা, মূল্য স্থিতিশীলতা বা নিয়ন্ত্রক কার্যকারিতার উপর কী ধরনের প্রভাব ফেলে? *

Type here...

সেকশন ৪: ডিজিটাল প্রস্তুতি

১১. আপনার মতে, ডিজিটাল ব্যবস্থা কতটুকু পাট মজুদ তদারকি ও বাজার ব্যবস্থাপনা উন্নত করতে পারে? *

Type here...

১২. পাট মজুদ তদারকি উন্নয়নের জন্য কী ধরনের ডিজিটাল টুল বা ব্যবস্থা সবচেয়ে কার্যকর হতে পারে? *

Type here...

সেকশন ৫: সংস্কার বাস্তবায়নের সম্ভাবনা

১৩. ডিজিটাল তদারকি ব্যবস্থা বাস্তবায়নের সময় কী ধরনের প্রাতিষ্ঠানিক, প্রশাসনিক বা অংশীজন-সংক্রান্ত চ্যালেঞ্জ দেখা দিতে পারে? *

Type here...

১৪. কাঁচা পাটের মজুদ তদারকি উন্নয়নের জন্য আপনি কী ধরনের নীতিগত বা প্রশাসনিক সংস্কারের সুপারিশ করবেন? *

Type here...

সেকশন ৬: চূড়ান্ত মতামত

১৫. কাঁচা পাট বাজার ব্যবস্থাপনা ও ডিজিটাল তদারকি সম্পর্কিত অতিরিক্ত মতামত, বাস্তব অভিজ্ঞতা বা সুপারিশ প্রদান করুন। *

Type here...

Submit

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Marks Obtained

Code No. ....

Code No. ....

Bangladesh Public Administration Training Centre

Savar, Dhaka.

Programme & Studies Division

Evaluation Department

Seal

157th Advanced Course on Administration and Development

Individual Assignment

NAME OF THE MODULE: **Research for Governance** MODULE NO: 05 (Part-II)

DATE: 15/06/2026

Instruction to be followed

(Please read carefully)

1. *Please write your Name, Roll No etc. at the specified space.*
2. *Writing Name, Roll No. etc. at any other place or making the script otherwise may cause cancellation of your answer script.*
1. *Put tick (✓) marks on Evaluation method and Institute's Name.*

Name: Mohammed Jahedur Rahman
Roll No: 127

Contents

Abstract

The textile and apparel sector serves as a key driver of economic growth and employment in Bangladesh. With a large youth population, the country has significant potential to harness its demographic dividend through effective human capital development. In our country Textile engineering education is delivered mostly through public textile institutions, which include a university (BUTEX), textile engineering colleges, textiles diploma institutes, and vocational institutes. Despite the expansion of textile engineering education, there is limited empirical evidence on the level of skill development, curriculum–industry alignment and employment outcomes of graduates from public textile institutions. This gap restricts understanding of how educational outputs correspond to labor market requirements and contributes to continued reliance on foreign skilled professionals. This study is going to assess challenges in textile education and their effects on skill development and labor market outcomes among graduates of public textile institutions in Bangladesh. Bangladesh's textile sector needs skilled workers to compete globally, but public institutes like BSc textile engineering college, Diploma produces graduates whom employers often reject. On the other hand ,in textiles administration of department of textiles have weakness in proper monitoring. To improve the quality and effectiveness of textile education institutions, clear job descriptions should be established for the education section within the Department of Textiles to ensure proper monitoring and management. This research may provide hard evidence on the institutional failures that are blocking textile graduate success. The findings will show exactly which curriculum holes, laboratory shortages and industry disconnects hurt graduates the most. Policymakers will receive clear recommendations for fixes, including modernized courses, factory internships and improved teacher training.

Assessing Performance Status in Public Textile Education & Their Effects on Skill Development and Labor Market Outcomes in Bangladesh

1.0 Introduction

1.1 Background of the Study

The textile and apparel sector serves as a key driver of economic growth and employment in Bangladesh. With a large youth population, the country has significant potential to harness its demographic dividend through effective human capital development. In our courtry Textile engineering education is delivered mostly through public textile institutions, which include a university (BUTEX), textile engineering colleges, textiles diploma institutes, and vocational institutes. These institutions are expected to produce skilled graduates aligned with industrial needs (Uddin, 2022). However, concerns persist regarding skill mismatch, limited practical training, and low employability, which hinder optimal utilization of this workforce (Alam et al., 2022; Hossain & Arefin, 2025).

Although these institutions aim to support the Ready-Made Garment (RMG) industry, they face a substantial skill gap often exceeding 50% in certain sectors, contributing to a reliance on foreign professionals especially at the executive level (Rahman, 2023). The Bangladesh government allocates significant budge to operate public textile institutions. However, the desired outcomes from these public textile's institutions have not yet been achieved at an acceptable level. Currently an estimated 50,000 foreign professionals (Directly & indirectly) occupy managerial and technical positions, resulting in a loss of foreign currency worth over USD 5-6 billion annually (World Bank, 2021; Bangladesh Institute of Development Studies, 2022). This situation represents an ominous sign for public textiles institutions as well as for the country as a whole. The public institutions are facing numerous challenges and as a result, unskilled workers are being produced (Sarker et al., 2021; Mondal et al., 2024).

1.2 Problem Statement

Despite the expansion of textile engineering education, there is limited empirical evidence on the level of skill development, curriculum–industry alignment and employment outcomes of graduates from public textile institutions. This gap restricts understanding of how educational outputs correspond to labor market requirements and contributes to continued reliance on foreign skilled professionals.

1.3 Objectives of the Study

General Objective

To assess challenges in textile education and their effects on skill development and labor market outcomes among graduates of public textile institutions in Bangladesh.

Specific Objectives

i. To identify institutional and academic challenges faced by students and graduates in public textile institutions in Bangladesh.

ii. To assess the level of skill development among graduates of public textile institutions.

iii. To minimize the occupancy of foreign graduates in our textiles industry sector

iv. To examine the relationship between educational challenges, skill development, and labor market outcomes among textile graduates

1.4 Rationale / Significance of the Study

Bangladesh's textile sector needs skilled workers to compete globally, but public institutes like BSc textile engineering college, Diploma produces graduates whom employers often reject. Skill gaps, outdated curriculum and a lack of practical training are creating significant unemployment problems among textile graduates (Sarker et al., 2021; Alam et al., 2022). This situation is particularly alarming given that an estimated 50,000 foreign professionals currently occupy managerial and technical positions in the sector, resulting in a loss of foreign currency worth over USD 5-6 billion annually (World Bank, 2021; Bangladesh Institute of Development Studies, 2022).

This research may provides hard evidence on the institutional failures that are blocking textile graduate success. The findings will show exactly which curriculum holes, laboratory shortages and industry disconnects hurt graduates the most. Policymakers will receive clear recommendations for fixes, including modernized courses, factory internships and improved teacher training (Uddin, 2022; Hossain & Arefin, 2025). Better skills development can help cut the USD 5-6 billion yearly foreign expert bill and fill the 50,000 empty manager positions with local talent (Rahman, 2023). A stronger industry-academia partnership will build a real workforce that is ready for RMG 4.0 demands. Despite the study's limitations the results provide an actionable road map for education reform and massive economic savings, ensuring that local talent finally matches factory needs (Mondal et al., 2024).

2.0 Literature Review

Bangladesh's textile and garment sector is one of the country's most important employment and export engines yet it continues to face a gap between educational output and labor market demand. The World Bank (2021) and Bangladesh Institute of Development Studies (2022) both emphasize that human capital outcomes depend on market-relevant skills, practical training and stronger education - industry alignment. Uddin (2022) similarly argues that textile education in Bangladesh has expanded, but its value depends on how well it prepares graduates for industrial work. This makes public textile institutions a relevant site for studying skill development and graduate employability.

Alam et al. (2022) explain that employability is shaped by skill development, not only by academic performance. Their study shows that graduates need technical ability, communication skills, and problem-solving capacity to succeed in the labor market. Sarker et al. (2021) also found that soft skills such as teamwork, adaptability and communication are central to graduate employability in Bangladesh. For textile graduates, these abilities are especially important because employers expect both technical competence and workplace discipline. The present study therefore examines whether public textile institutions are producing graduates with these job-ready skills.

Yunus and Yamagata (2012) describe Bangladesh's garment industry as highly dependent on a technically capable workforce. Islam et al. (2013) further note that textile industry growth is constrained by workforce quality, infrastructure, and competitiveness challenges. More recently, Mondal et al. (2024) argued that the future of the textile sector depends on stronger capacity building and skilled human resources. These studies suggest that textile education must be aligned with industrial needs if Bangladesh is to sustain sectoral growth and competitiveness.

Rahman (2023) shows that employability in the RMG sector depends heavily on practical training and workplace readiness. Hossain and Arefin (2025) also identify curriculum quality, training exposure and labor-market fit as major influences on graduate employability. BIDS (2022) reports widespread skill gaps across key sectors including RMG and textile with mismatches reaching very high levels in some industries. However, few studies focus specifically on public textile institutions and their graduates. This study fills that gap by using feasible primary data to examine skill development, curriculum relevance, and employment outcomes among graduates from public textile institutions.

3.0 Methodology

3.1 Study Area

The study will be conducted among graduates from selected public textile educational institutions in Bangladesh. These institutions may include public textile engineering colleges, diploma institutes and vocational training institutes located in different regions of the country. The selected institutions are expected to represent different levels of textile education and training systems in Bangladesh. Since the textile sector is one of the major industrial sectors in the country, graduates from these institutions are considered suitable for assessing educational challenges, skill development and employability related issues.

3.2 Study Design and Data Collection

Study Design

This study is cross-sectional quantitative and qualitative research design. The cross-sectional design is useful for examining relationships between educational experiences, skill development and employment outcomes among graduates. The quantitative approach is expected to provide measurable and statistically analyzable information regarding challenges in textile education and labor market readiness.

Study Population

The target population of this study will include graduates from public textile educational institutions in Bangladesh who completed their academic programs within the last five years. Current students from textile engineering, diploma and vocational backgrounds also will be included in the study. Institutional head, Related official from department & Ministry and industrialists will be interviewed in proper way.

Sampling Technique

A stratified convenience sampling technique will be applied for selecting respondents from different textile institutions. At first, participants will be grouped according to institution type such as university, engineering college, diploma institute, and vocational institute. Then respondents will be selected conveniently based on accessibility and willingness to participate. Participants may be contacted through institutional communication systems. Although probability sampling would provide stronger representativeness, it may not be fully possible because of time and resource limitations.

Sample Size

A number of convenience graduates will be included in the study depending on feasibility, accessibility and response rate. A relatively larger sample size is expected to improve reliability and provide better understanding about educational challenges and employability outcomes among textile graduates in Bangladesh.

Data Collection

Data will be collected using a structured self-administered questionnaire developed based on previous literature and study objectives . The questionnaire will be prepared in a simple and understandable format so that respondents can answer easily.

The questionnaire will include several sections such as socio-demographic information, academic background, institutional and academic challenges, laboratory and practical training facilities, internship experiences, skill development indicators, employment status, and perceived employability barriers.

3.3 Data Analysis

After completing data collection, the collected information will be checked, coded, cleaned and entered into statistical software for analysis. Data analysis will be conducted using R Project for Statistical Computing.

Descriptive statistical methods such as frequency, percentage, mean and standard deviation will be used to summarize respondent characteristics and important study variables. Exploratory factor analysis may be performed to identify underlying dimensions of institutional challenges and skill development indicators.

To examine relationships between educational challenges, skill development and labor market outcomes, inferential statistical analyses will be performed. Statistical techniques such as Chi-square test, independent sample t-test, ANOVA, correlation analysis, multiple linear regression and logistic regression may be used depending on the nature of variables and research objectives. Statistical significance will be considered at $p < 0.05$. However, some findings may still need careful interpretation because social and educational factors are often influenced by multiple conditions together.

3.4 Ethical Considerations

Before conducting the study, ethical approval will be obtained from the relevant institutional review authority. Participation in the study will be completely voluntary and informed consent will be taken from all respondents before collecting data. Respondents will be informed about the purpose of the study, confidentiality of information and their right to withdraw from participation at any stage of the research process without facing any negative consequence.

Confidentiality and anonymity of participant information will be maintained carefully throughout the study. Personal identities of respondents will not be disclosed in any report, publication or presentation. The collected data will only be used for academic and research purposes. Some participants may still feel uncomfortable answering certain questions, therefore efforts will be made to create a comfortable and respectful environment during data collection.

3.5 Limitations of the Study

The study may have several limitations which use of convenience sampling may reduce the generalizability of the results because respondents may not fully represent all textile graduates in Bangladesh. Another limitation is that direct employer or industry perspectives may not be included due to time and feasibility constraints. Therefore, the study will mostly reflect graduate experiences rather than employer evaluations. Finally, since this study follows a cross-sectional design, it may not establish clear causal relationships between educational challenges and employability outcomes. Even though some associations may be identified, long-term longitudinal research could provide deeper understanding in future studies.

4. Results and Findings

Total 1461 Respondents of the stakeholder group have been presented from public textiles institutions for proper understanding .The majority of the respondents were current students (66.9%) , describing that the study largely reflects the perspectives and experiences of learners currently enrolled in textiles education programs. The previous students constituted 19.5% of the sample, indicating valuable insights based on their educational and professional experiences. Besides, the inclusion of these diverse stakeholder groups enhances the comprehensiveness of the study and allows for a more balanced evaluation of the current status & effectiveness of textile education.

Distribution of Study Respondents by Stakeholder Group

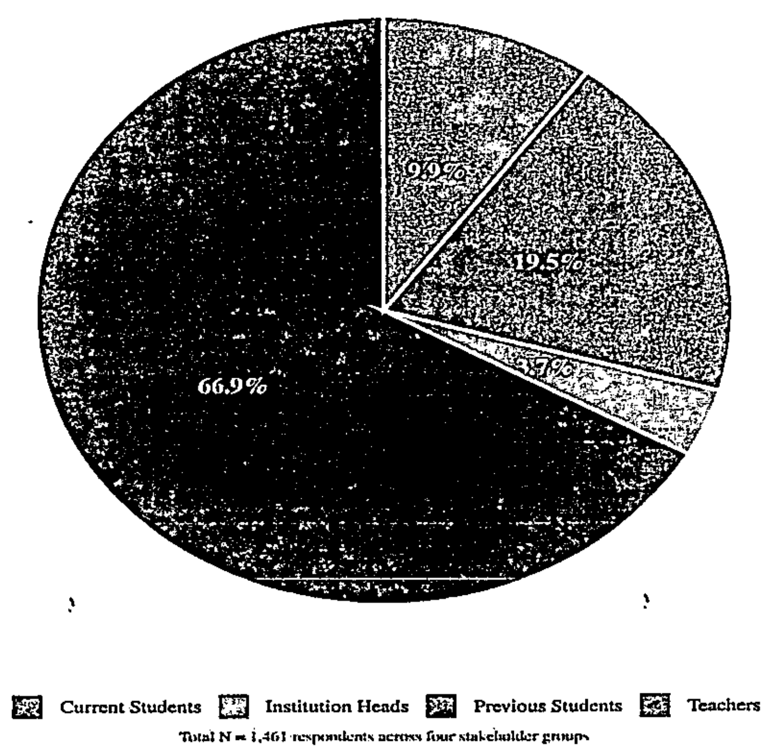


Figure 1. Distribution of Study Respondents by Stakeholder Group

Sociodemographic Characteristics of Current Students (n = 977)

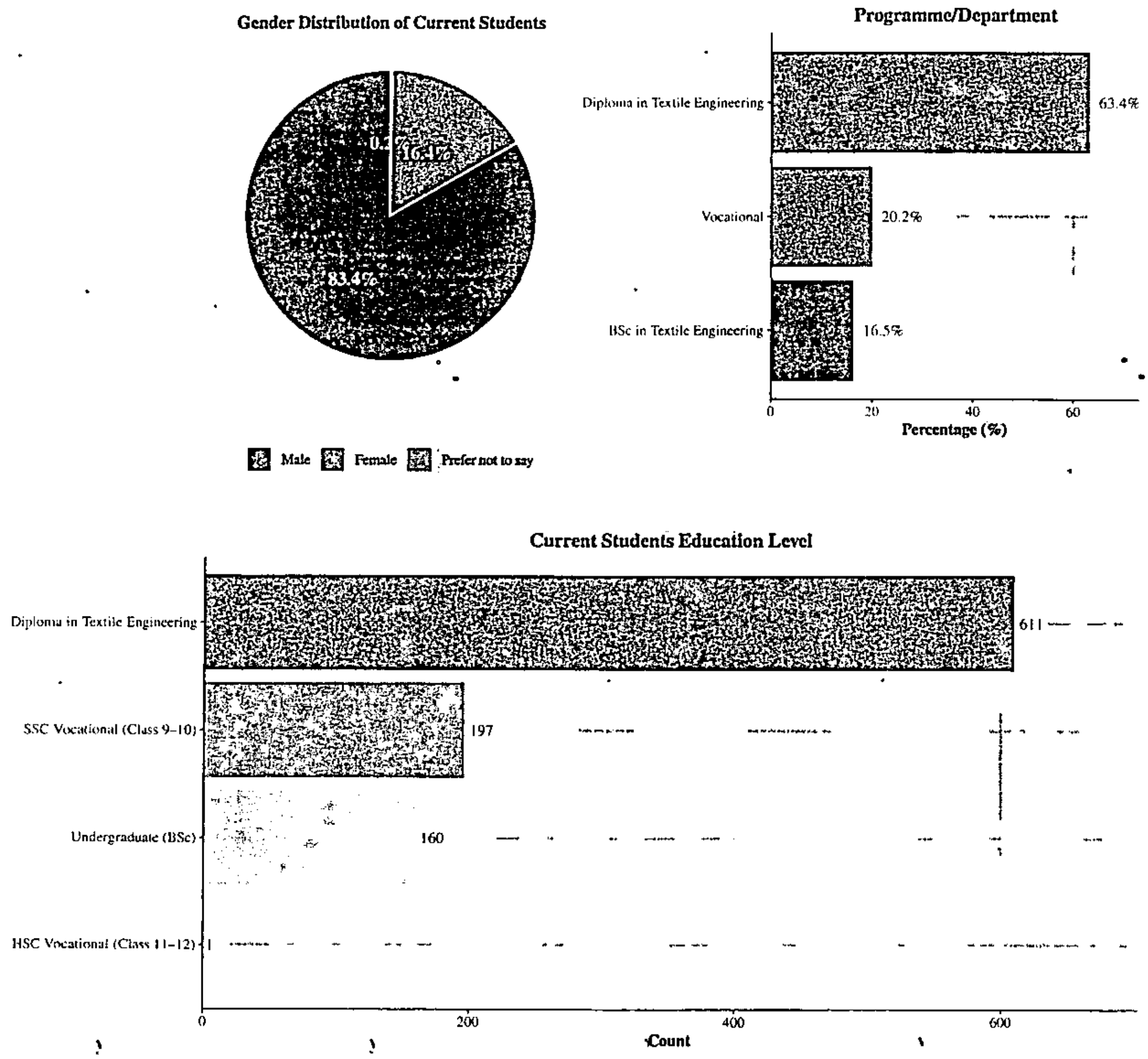


Figure 2. Sociodemographic Characteristics of Current Students (n = 977)

Industrial Visit and Internship Experience: More than half of the current students (56.1%) have attended industrial visits, but only 23.4% have completed internships. However, 79.8% of the students are willing to undertake internships .These findings suggest a gap between between students interest in practical training and availability of internship opportunities, emphasizing the need for stronger industry engagement within textile education program.

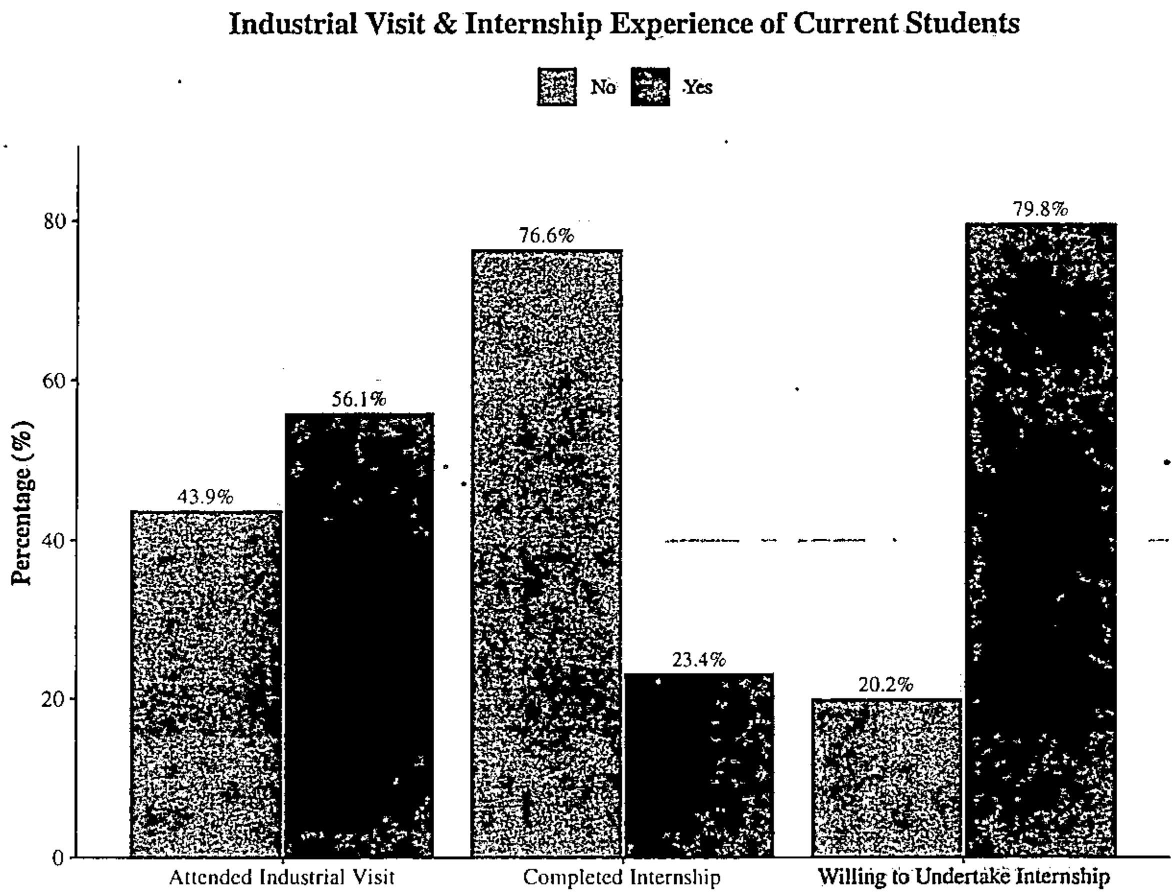


Figure 3. Industrial Visit & Internship Experience of Current Students (n = 977)

Employment status (Previous students): 44% of previous students are employed, 28% are pursuing higher education, 6% are self-employed, and 22% are unemployed. The findings indicate that textile education provides positive career and academic progression opportunities; however, the relatively high unemployment rate indicates the need for enhanced career support, industry collaboration, and employability-focused training.

Current Employment Status of Previous Students

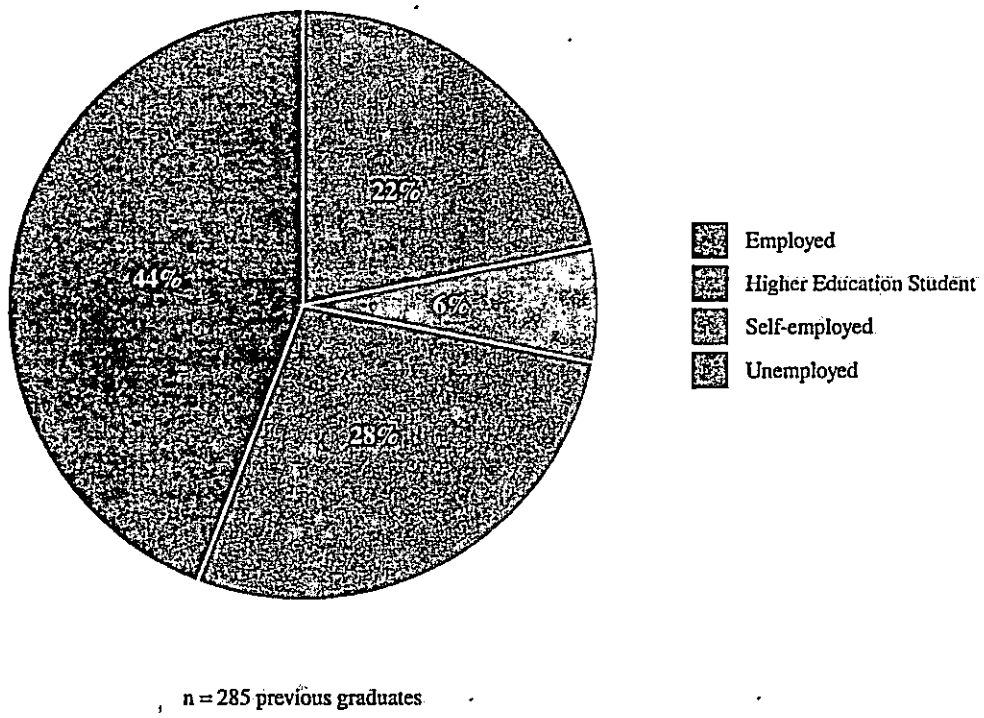


Figure 4. Current Employment Status of Previous Students (n = 285)

Comment on Institutional & Academic Perception(Current students): Figure -5:Relatively lower agreement levels were reported for laboratory facilities, industrial visits, and the inclusion of modern textile technologies, suggesting areas where further improvement is needed. Figure -6 : laboratory facilities (Mean = 3.09) and industrial visits (Mean = 3.15) obtained comparatively lower scores, suggesting areas that require further improvement in textile education.

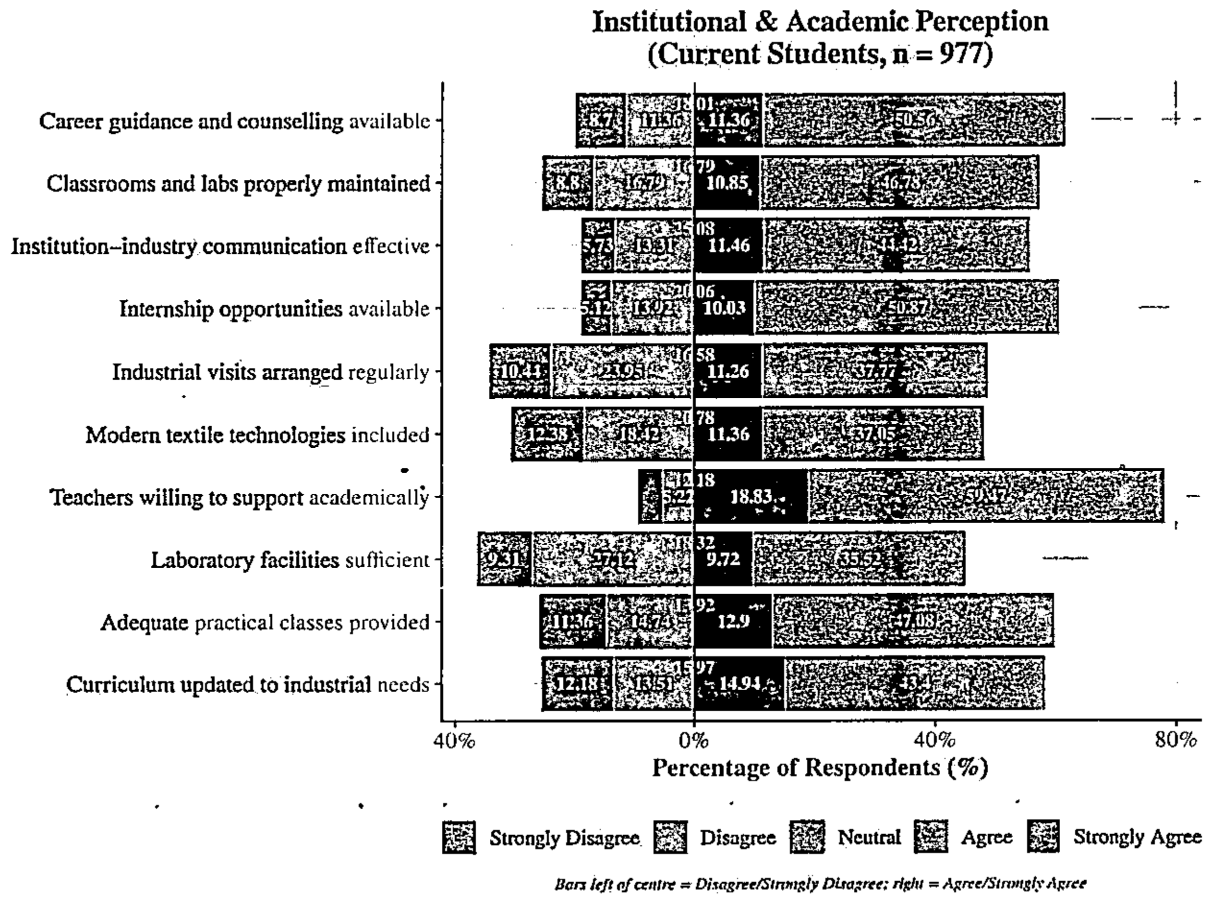


Figure 5. Institutional & Academic Perception — Diverging Likert Chart (Current Students)

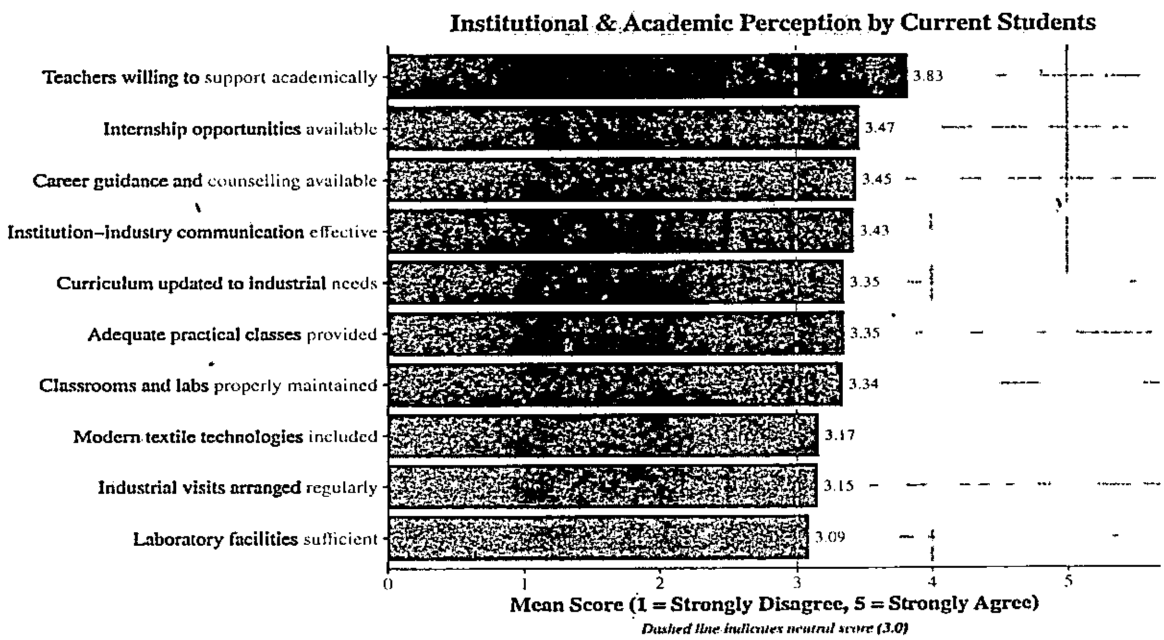


Figure 6. Institutional & Academic Perception — Item Mean Scores (Current Students, n = 977)

Comment on Skill Development Perception (Current students): Figure -7 describes that perceptions of the respondents were less positive regarding the ability to operate textile machinery confidently, where a relatively a small proportion of students expressed disagreement. This finding suggests that while the curriculum is successful in fostering general professional and soft skills, greater emphasis on hands-on training, laboratory practice, and industry-based learning may be required to strengthen students' practical technical competence. Figure-8 indicates The highest-rated statement, "Internship experience improves employability" (Mean = 3.84), suggests that students strongly recognize the importance of internships in enhancing career prospects. Students also reported positive perceptions regarding their ability to adapt to industrial technologies (Mean = 3.65), develop teamwork and leadership skills (Mean = 3.61), and improve communication skills (Mean = 3.54). However, the lowest score was recorded for "Can operate textile machinery confidently" (Mean = 2.90), indicating a lack of confidence in practical machine operation. This suggests that while the institution is successful in developing employability-related and soft skills, greater emphasis on hands-on technical training and practical exposure may be needed to strengthen students' operational competencies.

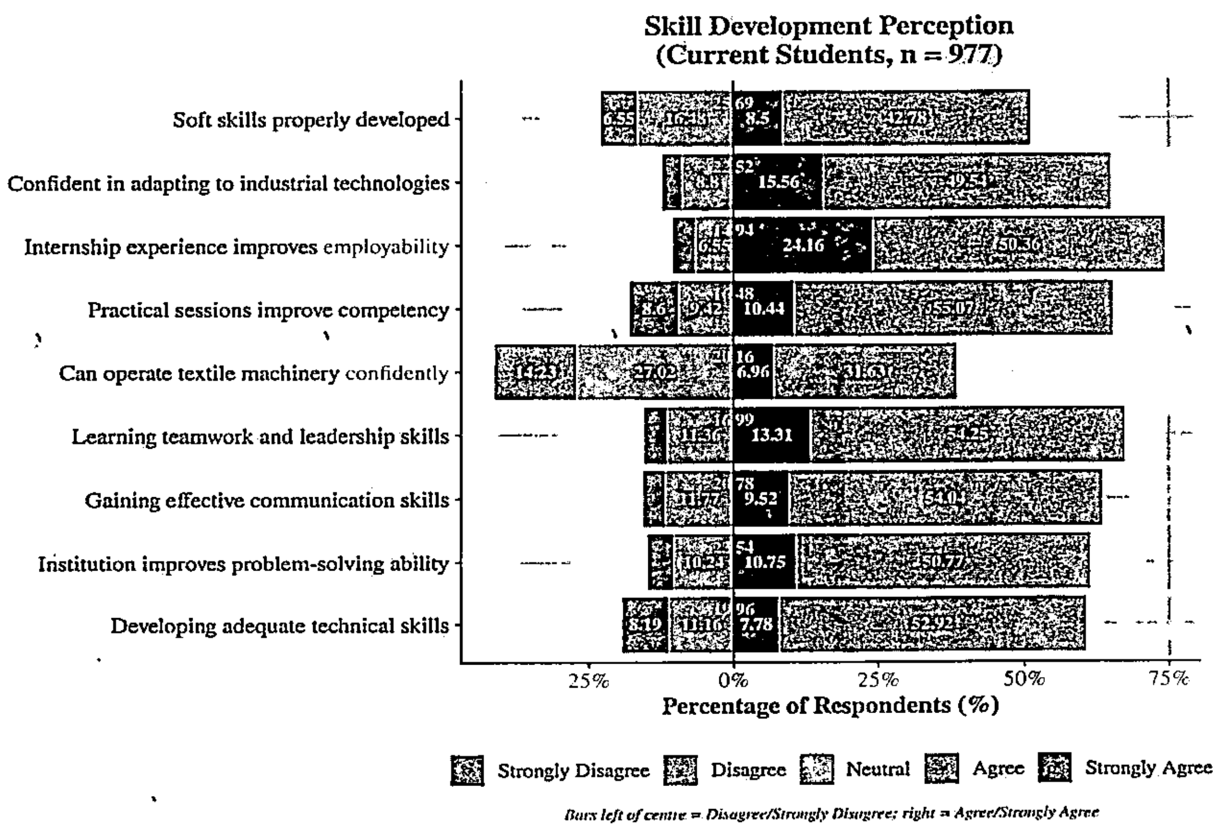


Figure 7. Skill Development Perception — Diverging Likert Chart (Current Students)

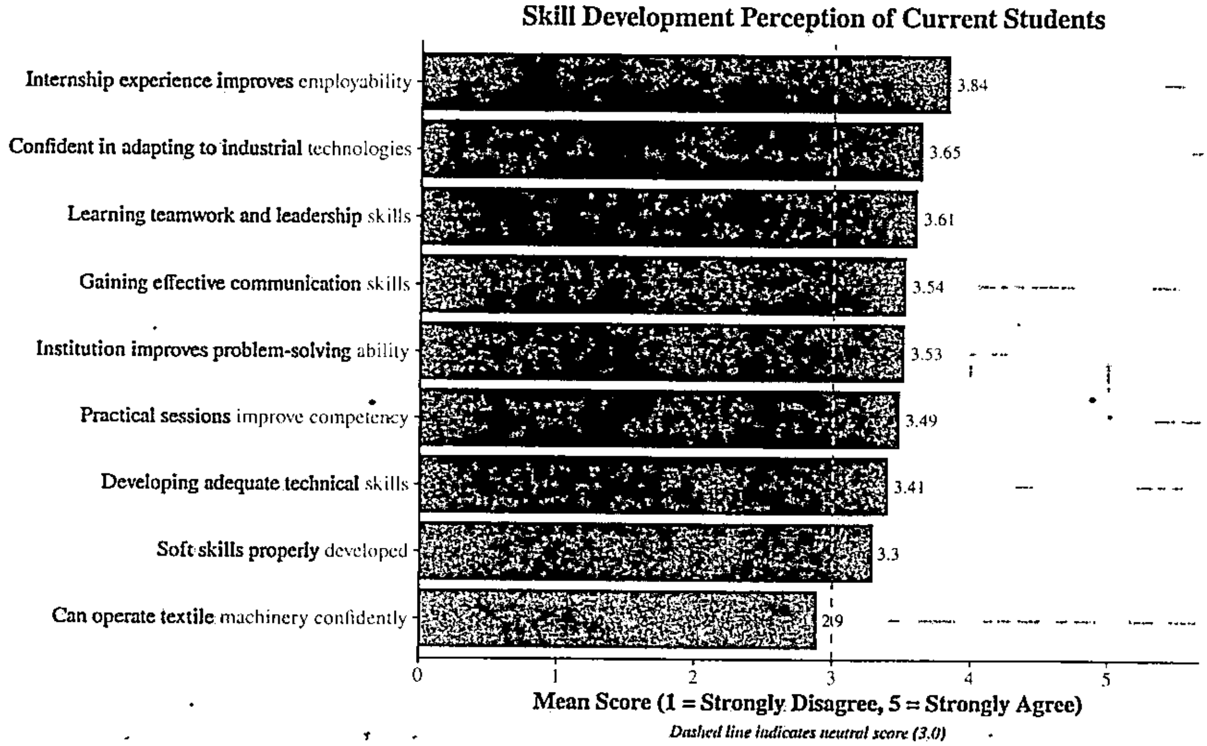


Figure 8. Skill Development Perception — Item Mean Scores (Current Students, n = 977)

Comment on Principal/Super & Teacher Performance Perception: Figure -9 shows that comparatively lower satisfaction is observed regarding budget utilization for education (39.61%) and communication with industrialists (45.04%), needs further improvement. Figure -10 indicate that relatively lower scores for principal–industry communication (M = 3.40) and the proper use of educational budgets (M = 3.16) which could be further strengthened.

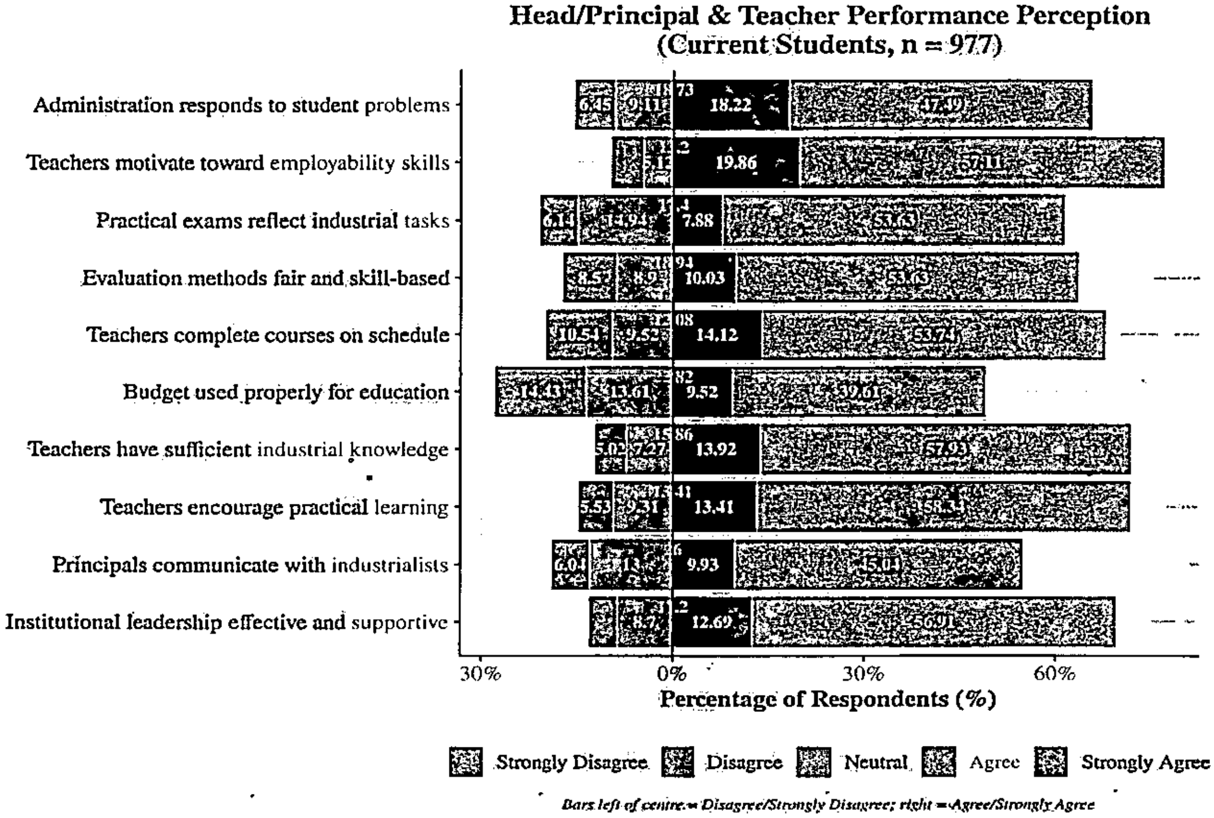


Figure 9. Principal & Teacher Performance Perception — Diverging Likert Chart (Current Students)

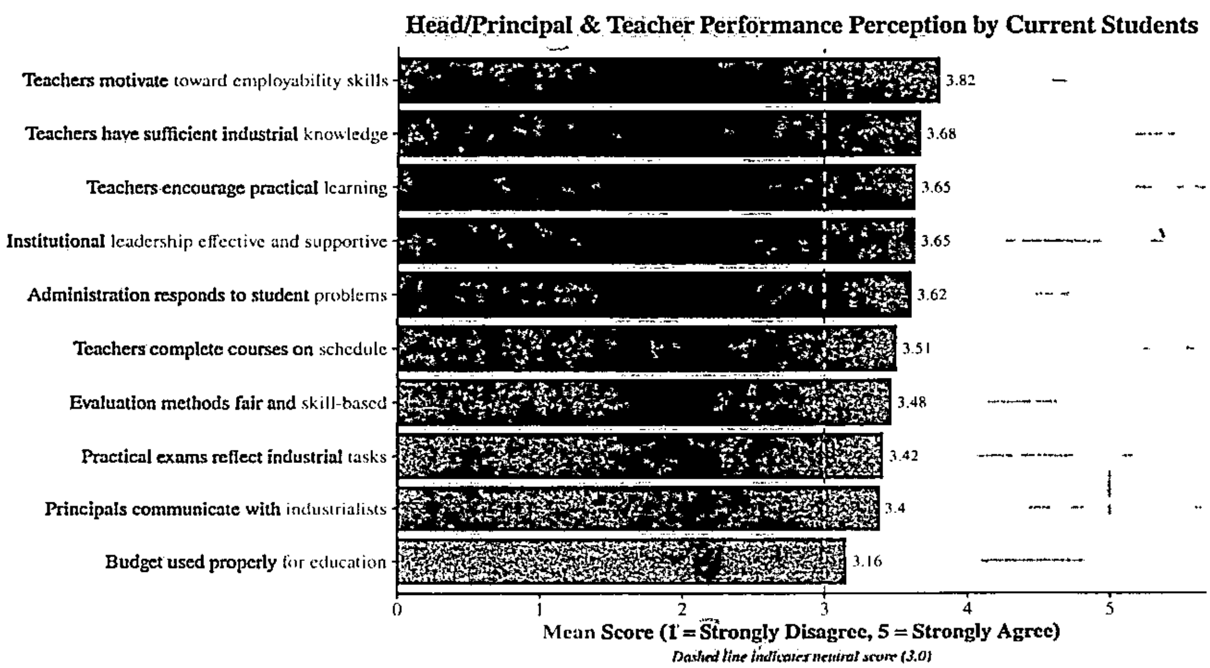


Figure 10. Principal & Teacher Performance Perception — Item Mean Scores (Current Students, n = 977)

Internal Consistency Reliability: Figure -11 The Cronbach's Alpha values range from 0.738 to 0.925, which indicates that all measurement scales used in this thesis demonstrate acceptable to excellent internal consistency. Most scales achieved alpha values above 0.80, confirming that the questionnaire items are reliable and suitable for assessing stakeholder perceptions across different groups.

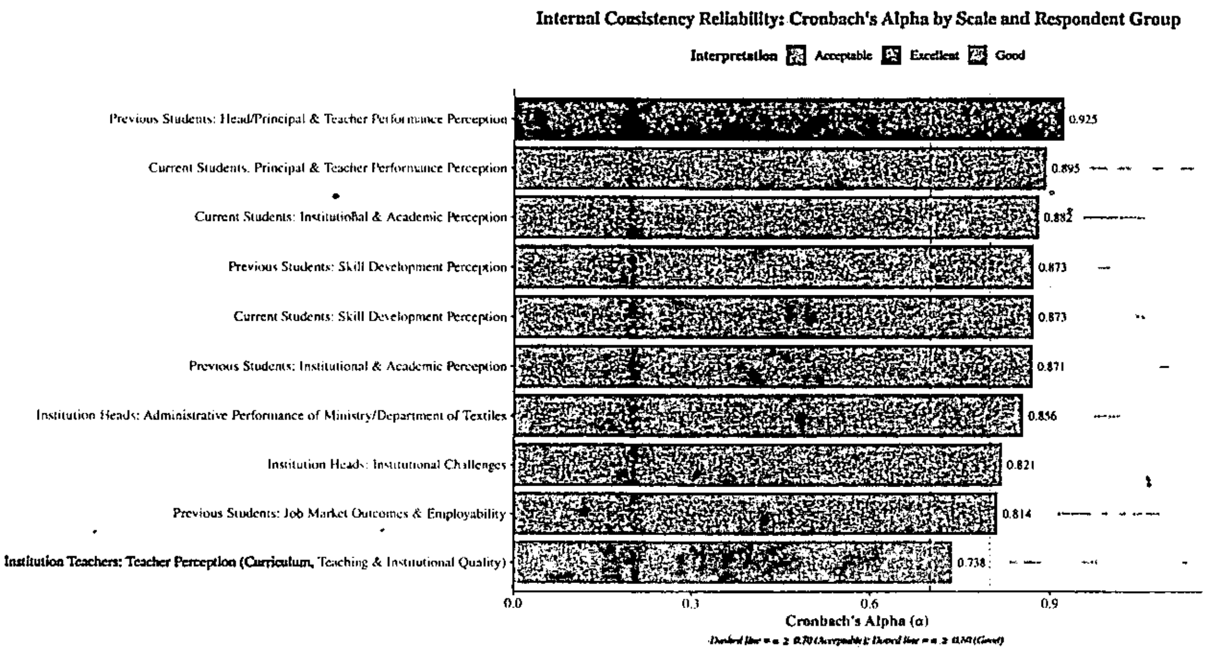


Figure 11. Internal Consistency Reliability (Cronbach's Alpha) by Scale and Respondent Group

Comment on Figure -12:(Three graphs): Average students have a positive perception and the distributions are slightly negatively skewed .

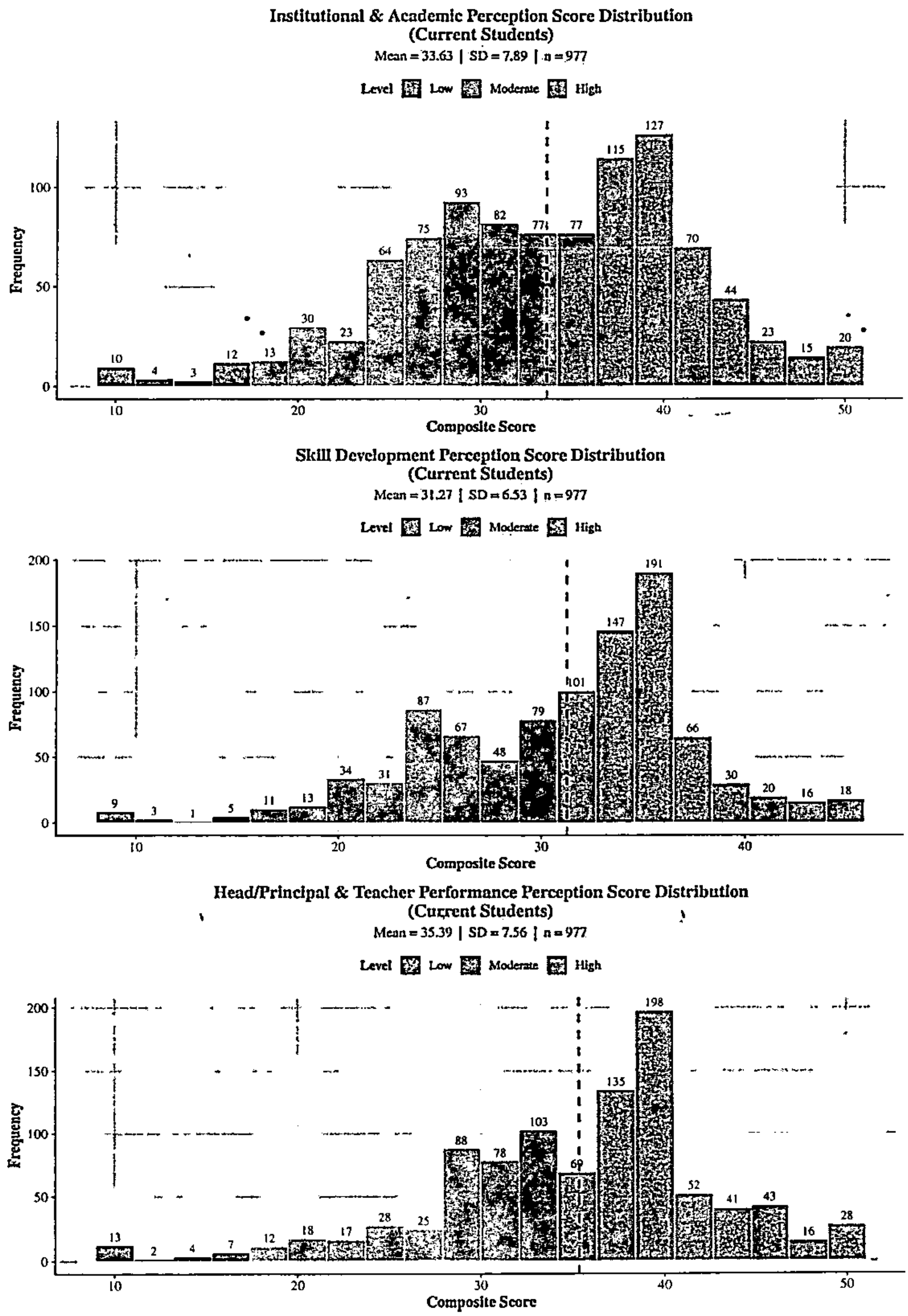


Figure 12. Composite Perception Score Distributions — Current Students

Comment on Figure -13:(Four graphs): More than average students have a positive perception and the distributions are slightly negatively skewed .

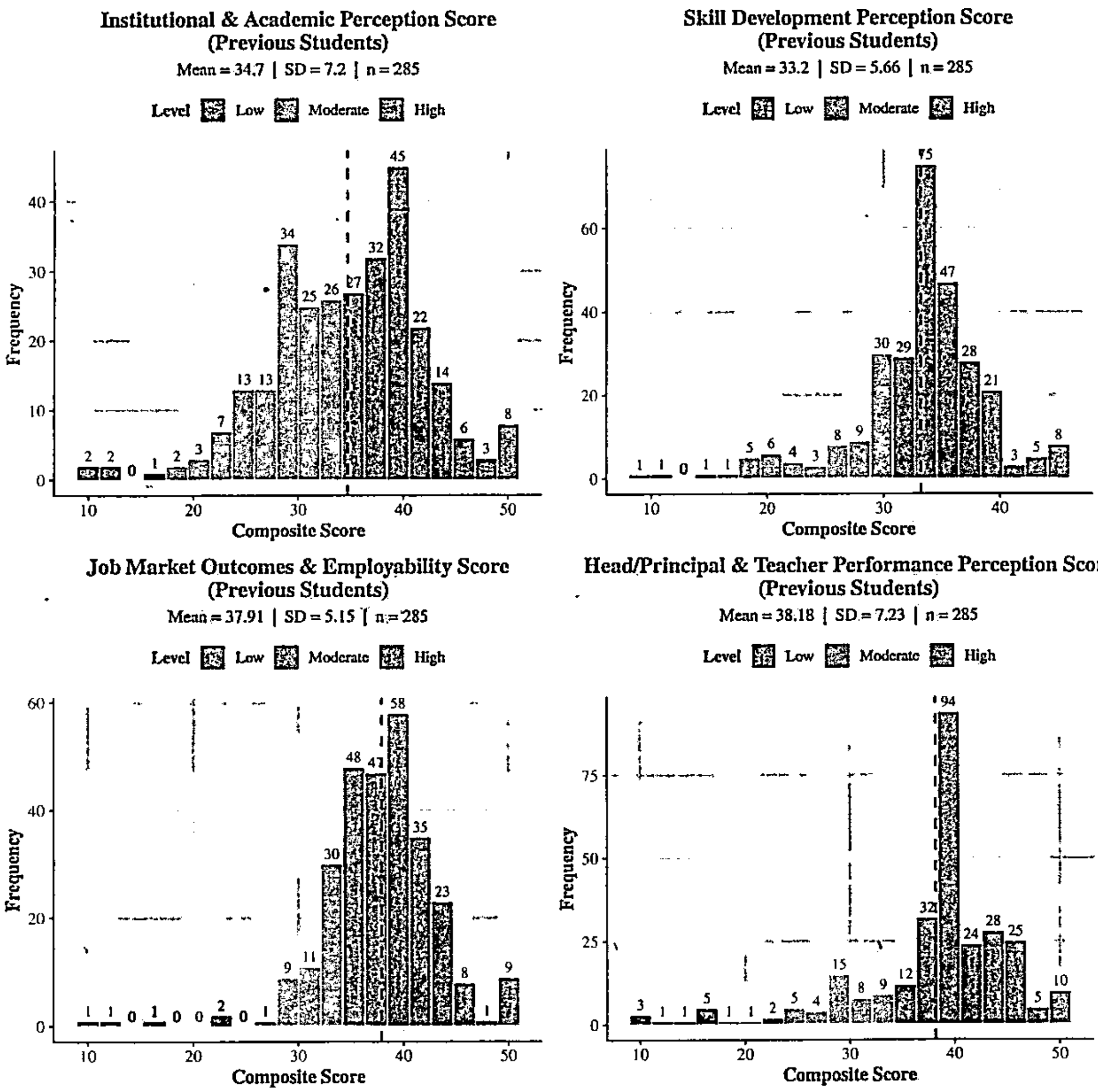


Figure 13. Composite Perception Score Distributions — Previous Students

Comment on Figure -14 : Previous students appear to have a more positive perception of skill development, institutional support, teacher performance, and employability outcomes compared to current students.

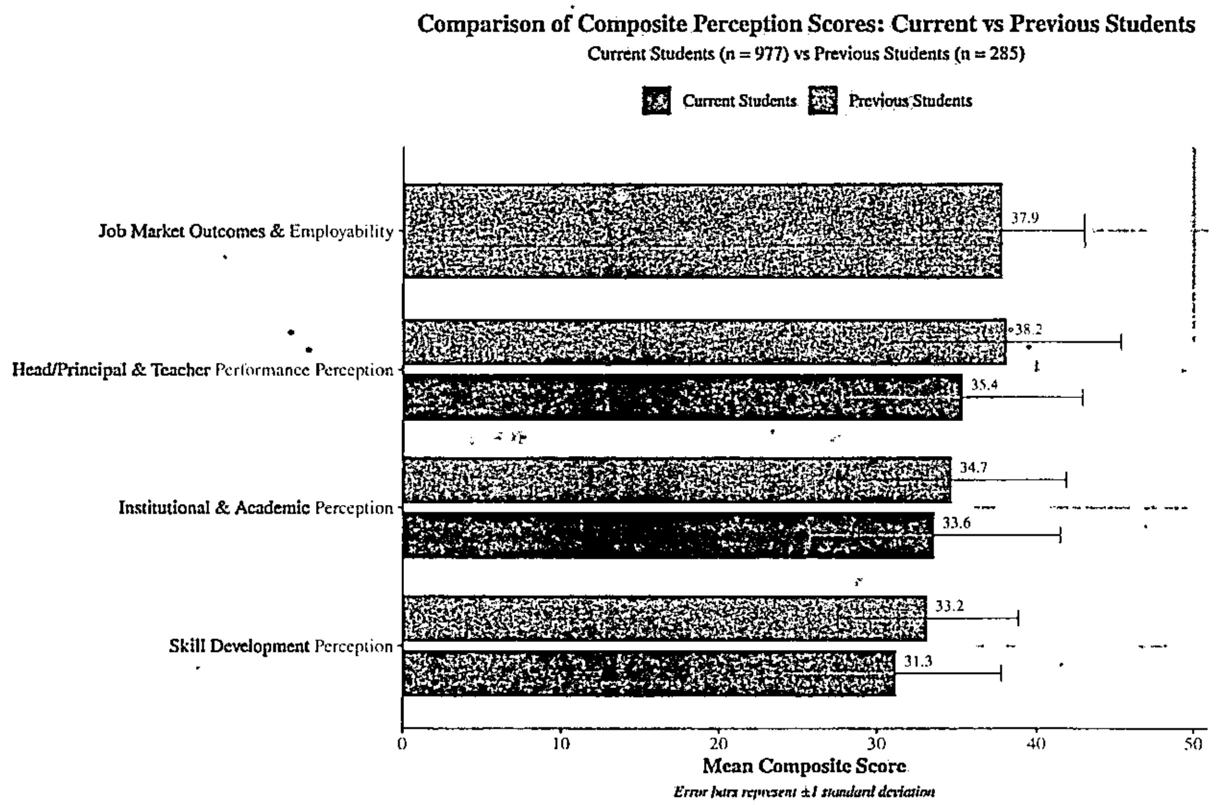


Figure 14. Comparison of Composite Perception Scores: Current vs Previous Students

Comment on Correlation Matrix: Figure-15 ,The matrix indicates that student perceptions across these three domains exist in linear relationship. Improvement in any single area—whether upgrading institutional facilities, enhancing skill programs, or improving teacher performance—is likely to positively influence how students perceive the other two areas.

Correlation Matrix: Current Students' Composite Perception Scores

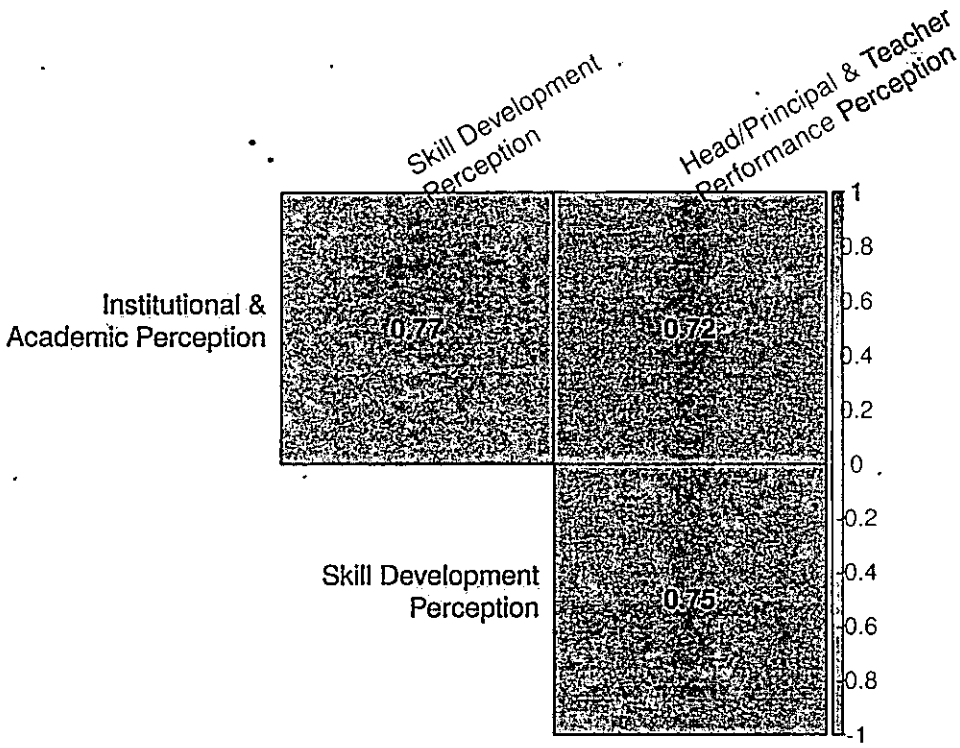


Figure 15. Correlation Among of Composite Perception Scores by Currents Students

Comment on Figure-16 : Except the unique HSC Vocational outlier, the perception of skill development remains relatively stable (not scattered) (averaging between 30 and 31 out of 45) as students progress from school-level vocational training to higher education (Diploma and BSc).

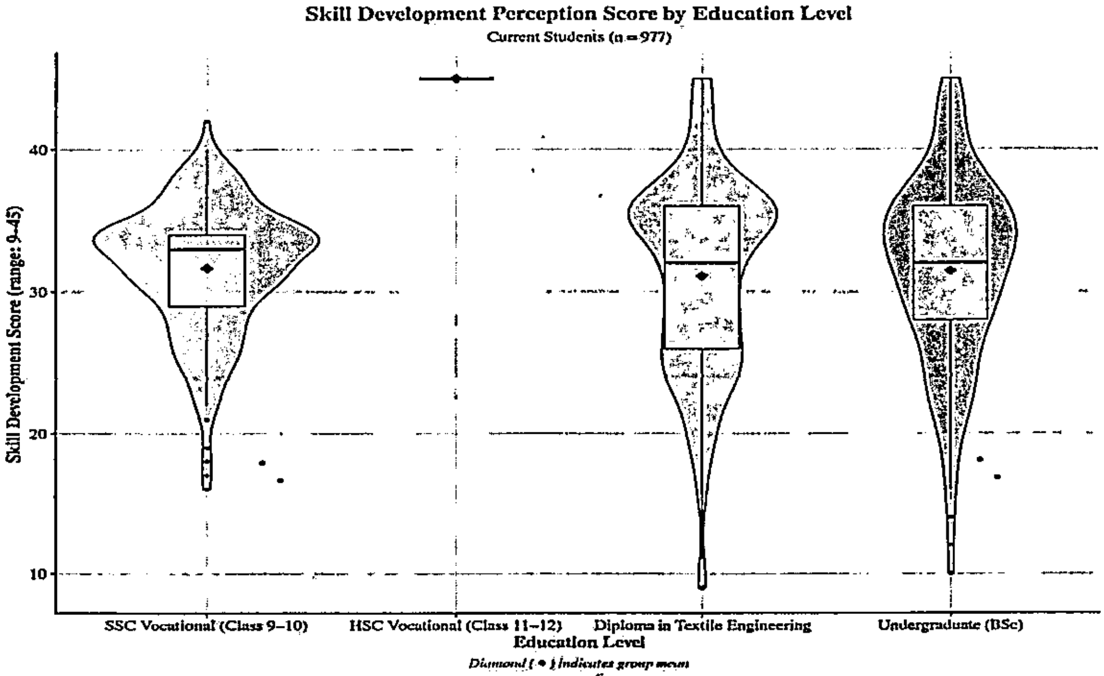


Figure 16. Skill Development Perception Score by Education Level (Current Students)

Comment on Figure-17 : This graph compares Job Market Outcomes & Employability Scores across four different student employment categories using a combination of violin plots and box plots.

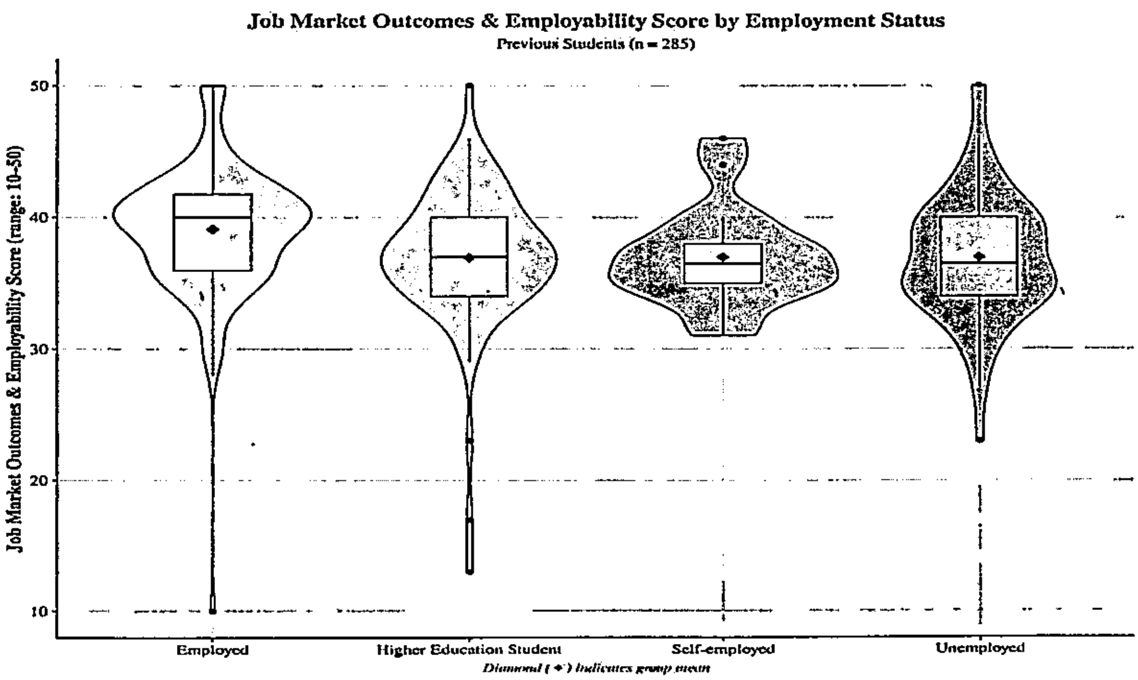


Figure 17. Job Market Outcomes & Employability Score by Employment Status (Previous Students)

Comment on Figure- 18 :It indicates survey responses from 145 institution teachers regarding their perceptions of public textile education. Level of agreement with diffirents statements on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree).Scores below 3.0 highlight systemic weaknesses and lack of resources in the institutions , Laboratory resources . Industry collaboration and Teacher training opportunities are heavily lacking, scoring the lowest.

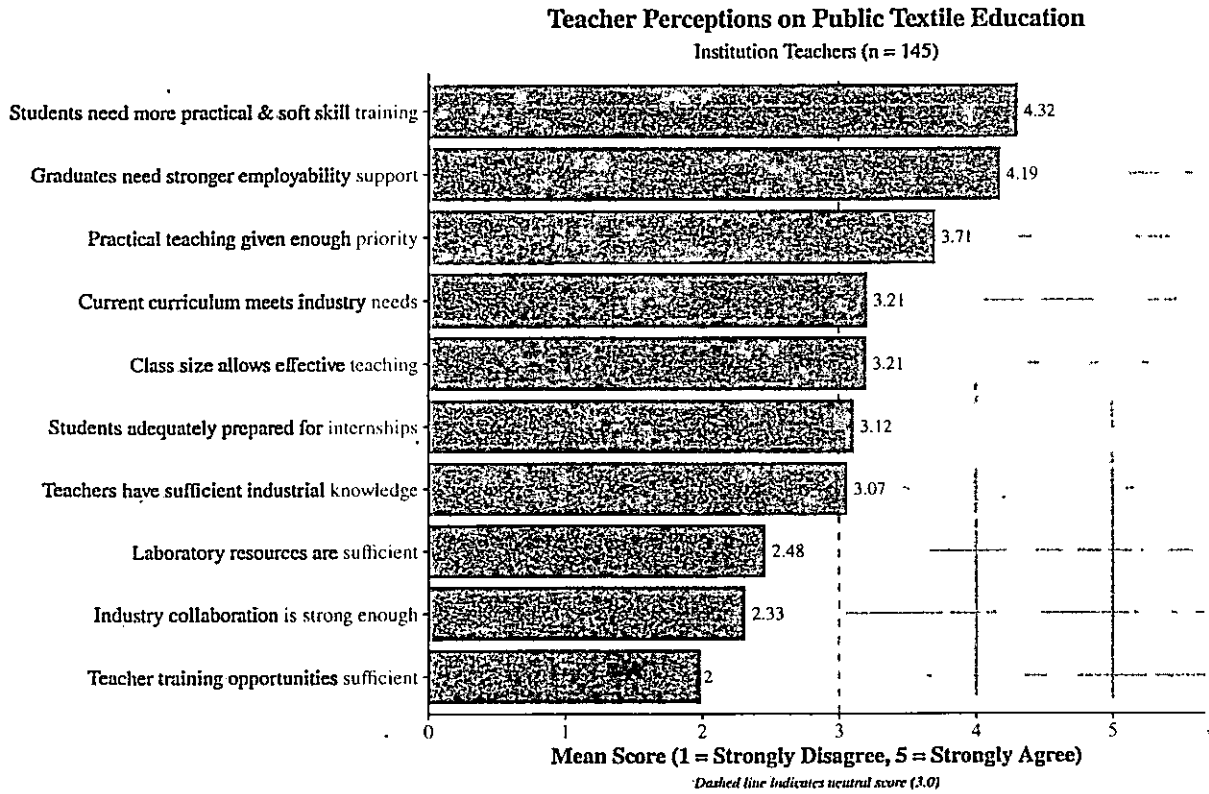


Figure 18. Teacher Perceptions — Item Mean Scores (Institution Teachers)

Comment on Figure -19: It indicates survey responses from 54 Institution Heads and Principals regarding their perceptions of institutional challenges and measures their level of agreement with various statements on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Internship program , Funding for lab and workshop development and Industry links are perceived as weak . Also, Regular professional training for teachers is heavily lacking, scoring a flat 2.04.

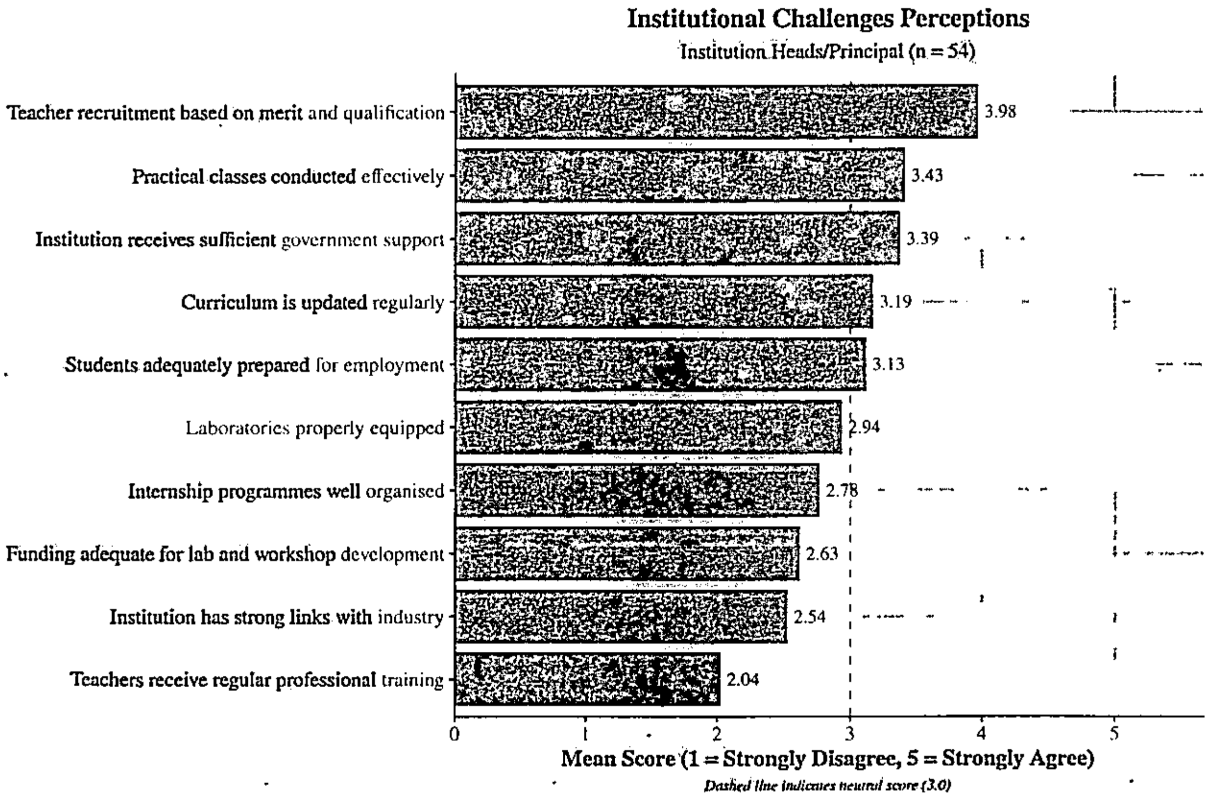


Figure 19. Institutional Challenges — Item Mean Scores (Institution Heads/Principal)

Comment on Figure-20: It indicates survey responses from 54 Institution Heads and Principals regarding their perceptions of the Administrative Performance of the Ministry/Department of Textiles. External influence negatively impacts institutions, budget allocations are deemed insufficient for educational improvement and professional development is severely neglected.

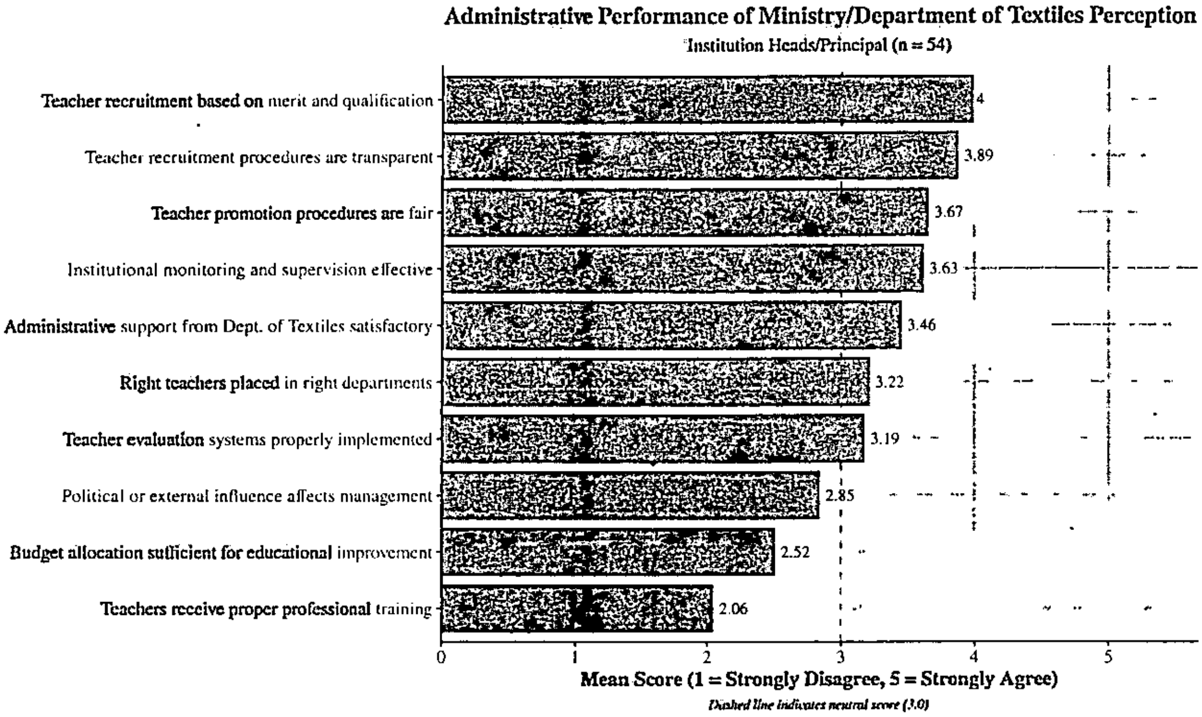


Figure 20. Administrative Performance of Ministry/Department Perception— Item Mean Scores (Institution Heads/Principal)

Overall Findings of graphs: A gap between students' interest in practical training and availability of internship opportunities, emphasizing the need for stronger industry engagement within textile education program. Systemic weaknesses and lack of resources in the institutions, Laboratory resources. Industry collaboration and Teacher training opportunities are heavily lacking as result of scoring the lowest. Overall, the findings also suggest that textile education institutions are performing reasonably well but require improvements in practical training, laboratory facilities, industry collaboration, and internship implementation to better meet industry demands.

4. Findings on Focus Group Discussion for Department of Textiles Officials

4.1.1 Need for a Posting and Placement Policy in Public Textile Education Institutions and also for the department of textiles :

Analysis

The absence of a formal posting and placement policy in public textile education institutions in Bangladesh creates significant administrative and academic challenges. Without a structured policy, the deployment of teachers, instructors, and technical staff often becomes uneven, leading to shortages in some institutions and excess personnel in others. This imbalance negatively affects the quality of teaching, practical training, and student supervision. Moreover, frequent and non-transparent transfers can reduce employee motivation, job satisfaction, and institutional commitment. The lack of clear placement criteria may also create perceptions of favoritism, reducing trust in the administration and affecting workplace morale. From a skill development perspective, institutions with inadequate qualified personnel struggle to deliver industry-relevant education and hands-on training, limiting students' competencies and employability. A well-defined posting and placement policy is therefore essential to ensure equitable distribution of human resources, transparency in administrative decisions, improved institutional performance, and better labor market outcomes for textile graduates in Bangladesh.

4.1.2 The Importance of formulation a Current / latest Recruitment Policy for merit-based recruitment in department of Textiles :

Analysis

A well-structured recruitment policy is essential for ensuring transparency, merit-based selection, and the appointment of qualified personnel in public textile education institutions. In the absence of a clear recruitment policy, institutions may face inconsistencies in hiring practices, delays in filling vacant positions, and difficulties in attracting competent candidates. This can lead to shortages of qualified teachers, instructors, and administrative staff, ultimately affecting the quality of education and training provided to students.

The lack of standardized recruitment guidelines may also create perceptions of favoritism, reduce accountability, and undermine trust in the recruitment process. Furthermore, institutions may struggle to align workforce requirements with industry demands, resulting in skill gaps among graduates. Inadequate staffing can increase workloads for existing employees, lowering productivity and morale. A comprehensive recruitment policy would help ensure that the right people are hired for the right positions, strengthen institutional performance, improve skill development outcomes, and better prepare graduates for the evolving labor market in Bangladesh's textile sector.

4.1.3 the Need for Ministry Participation in Curriculum Development both in technical Board and BUTEX

Analysis

Active participation of the Ministry in curriculum development is essential to ensure that public textile education remains relevant, standardized, and aligned with national development goals. Currently, different authorities are responsible for curriculum design at different educational levels, such as the Technical Education Board for Diploma (TVI/SSC) programs and Bangladesh University of Textiles (BUTEX) for B.Sc. (Engineering) programs. However, limited involvement of the Ministry may create gaps in coordination, policy alignment, and responsiveness to emerging industry needs.

Ministry participation can help integrate national industrial strategies, labor market demands, technological advancements, and skill requirements into curricula. It can also facilitate collaboration among educational institutions, regulatory bodies, and industry stakeholders to ensure consistency and quality across programs. Without adequate ministry involvement, curricula may become outdated, resulting in graduates lacking the competencies required by employers. A coordinated curriculum development process would strengthen skill development, enhance graduate employability, support innovation in textile education, and contribute to the sustainable growth and global competitiveness of Bangladesh's textile and apparel sector.

4.1.4 The Need for a Formal Industry–Academia Coordination Policy by ministry of Textiles and Jute:

Analysis

A formal policy for coordination between public textile education institutions and textile industries is essential to bridge the gap between theoretical learning and practical workplace requirements. The textile and apparel sector is highly technology-driven and continuously evolving; therefore, students need regular exposure to real industrial environments to develop job-ready skills. Through structured partnerships with industries, students can participate in internships, industrial attachments, factory visits, apprenticeship programs, and hands-on training, enabling them to gain practical knowledge of production processes, quality control systems, compliance standards, and modern technologies.

- In the absence of a formal coordination policy, industry engagement often remains irregular, institution-dependent, and limited in scope. As a result, many graduates enter the labor market with strong theoretical knowledge but insufficient practical experience, making workforce integration more challenging. A well-defined industry–academia collaboration framework would ensure systematic training opportunities, strengthen curriculum relevance, enhance employability, and facilitate knowledge exchange between educators and industry professionals. Ultimately, such a policy would contribute to producing a skilled workforce capable of meeting the growing demands of Bangladesh's textile and apparel industry.

4.1.5: Job description of education section in the departmental Textiles should be separated properly:

Analysis

To separate and structure all job descriptions within the Education Section of the Department of Textiles (DOT) and responsibilities must be clearly divided within Academic/Pedagogical Roles_expert as possible as.

Findings:

Institutional Governance & Coordination Framework for Public Textile Education in Bangladesh

Policy Area	Key Weaknesses	Additional Issues (Beyond Weakness)	Required Actions	Responsible Institutions
Industry–Academia Coordination	Limited industrial exposure for students; weak internship system	Skill mismatch with labor market; low employability; outdated practical training	Establish mandatory internship, apprenticeship, industrial visits, and MoU-based partnerships with textile industries	Ministry of Textiles and Jute, Department of Textiles, Textile Industries, Educational Institutions
Ministry Participation in Curriculum Development	Insufficient policy-level coordination in curriculum design	Lack of national standardization; slow response to technological change; fragmented curriculum across institutions	Create centralized curriculum development committee with ministry oversight and industry input	Ministry of Textiles and Jute, Technical Education Board, Bangladesh University of Textiles (BUTEX),

				Department of Textiles, Industry Experts
Recruitment Policy	Absence of standardized recruitment guidelines; irregular hiring practices	Favoritism risk; delays in filling vacancies; shortage of skilled educators; reduced institutional efficiency	Introduce transparent, merit-based national recruitment policy with defined job standards and timelines	Ministry of Textiles and Jute, Public Service Commission, Department of Textiles
Posting & Placement Policy	Unequal distribution of skilled teachers; ad hoc transfer decisions	Institutional imbalance; disruption of academic continuity; low staff motivation; inefficiency in human resource use	Develop structured posting, transfer, and placement policy based on institutional needs and performance	Ministry of Textiles and Jute, Department of Textiles, Directorate of Technical Education
Faculty Capacity Development	Limited training and industrial exposure for teachers	Weak teaching quality; outdated technical knowledge; low innovation in teaching methods	Implement continuous professional development, industry attachment, and training programs	Department of Textiles, Textile Industries, Development Partners
Curriculum Relevance & Updating	Slow curriculum revision process	Misalignment with global textile trends; outdated competencies	Regular curriculum review cycles with industry and academic consultation	Ministry, Technical Education Board, BUTEX, Industry Associations
Monitoring & Evaluation System	Weak performance monitoring mechanisms	Lack of accountability; poor outcome tracking; inefficient policy implementation	Develop KPI-based monitoring system and institutional performance audits	Ministry of Textiles and Jute, Department of Textiles

Infrastructure & Laboratories	Inadequate modern lab facilities	Limited hands-on learning; reduced technical competence	Upgrade laboratories with modern textile machinery and simulation tools	Ministry, Department of Textiles, Educational Institutions
Research & Innovation Linkage	Weak collaboration between industry and academia	Low innovation output; limited product development	Establish joint research centers and industry-funded innovation projects	BUTEX, Department of Textiles, Textile Industries
Career Guidance & Placement Services	Weak career counseling and job placement support	Poor transition from education to employment	Establish dedicated career cells and job placement units in institutions	Department of Textiles, Educational Institutions, Industry Partners

Summary

This framework shows that improving public textile education in Bangladesh requires coordinated reforms across industry linkage, curriculum development, recruitment, posting, and institutional governance. Strong collaboration among the Ministry of Textiles and Jute, Department of Textiles, educational institutions, technical boards, Bangladesh University of Textiles (BUTEX), and textile industries is essential to enhance skill development and improve labor market outcomes.

Findings on Industrialist's FGD Themes:

4.2.1: ***A gap between learning outcomes and industry's continuous upgrading requirements:***

Analysis:

Many graduates fail to achieve the competencies expected by employers. There is a gap between learning outcomes and industry requirements. Establishment of outcome-based education (OBE), regular competency assessment, and stronger academic monitoring systems should be introduced.

__4.2.2: Adequate theoretical understanding but lack hands-on experience with modern textile machinery reduces employability__:

__Analysis__

Students possess adequate theoretical understanding but lack hands-on experience with modern textile machinery and production processes. This reduces Establish outcome-based education (OBE), regular competency assessment, and stronger academic monitoring systems. Have to increase laboratory sessions, factory-based learning, simulation training.

__4.2.3: Students get limited industrial exposure visit within a short time duration:__

__Analysis:__

Internship activities are often short-term, poorly supervised, and not linked with curriculum outcomes. Students gain limited industrial exposure. Should develop structured internship guidelines, industry mentors, performance evaluation systems, and credit-based internships and also introduce legal based internship.

__4.2.4: Lack of Technical and Applied Knowledge of the students:__

__Analysis:__

Students often lack applied problem-solving, production management, quality control, and modern technological knowledge required by the textile sector. Have to introduce industry projects, case studies, industrial software training, and emerging textile technologies into courses.

__4.2.5: Teachers Need Professional Training and Industry Participation needed in Curriculum Development:__

__Analysis:__

Many faculty members have limited exposure to current industrial technologies, automation, and modern teaching methods. Curriculum is often designed with limited industry consultation, resulting in skill mismatches and outdated content.

__4.2.6 : Curriculum Needs Updating with Changing Times:__

__Analysis:__

Rapid technological changes such as automation, sustainability, digital manufacturing, and smart textiles are not adequately reflected in curricula. Conduct curriculum reviews every 3–5 years and incorporate Industry 4.0, sustainability, AI applications, and advanced textile technologies.

Summary of Findings

The analysis indicates that public textile education institutions in Bangladesh face significant challenges in producing industry-ready graduates. The major issues include insufficient practical training, ineffective internship programs, outdated curricula, limited industry involvement, and inadequate teacher capacity development. These shortcomings contribute to skill gaps and reduce graduates' competitiveness in the labor market. Strengthening industry-academia collaboration, enhancing practical learning opportunities, providing regular teacher training, and implementing dynamic curriculum revision mechanisms can substantially improve skill development and employment outcomes. Such reforms will help align textile education with the evolving needs of Bangladesh's textile and apparel industry and support sustainable workforce development.

Findings on Focus Group Discussion for Ministry Officials:

4.3.1: Need to formulate Posting and Placement Policy in Public Textile Education Institutions and also for the department of textiles :

Analysis:

Unequal distribution/placement of skilled teachers and ad hoc transfer decisions create a problem. Ministry has to develop structured posting, transfer, and placement policy based on institutional needs and performance.

4.3.2: Industry collaborations are conducted occasionally, engagement should be systematically and regularly:

Analysis:

Weak collaboration between industry and academia hampers academic activities . Have to Establish joint research centers and industry-funded innovation projects.

4.3.3: For effective Internship and industrial attachment a legal instrument/ policy should be introduced:

Analysis:

Limited industrial exposure visit for students and weak internship system make gap between academic theory and real-world industrial operations. Proper visits provide practical and hands-on experience regarding industrial activities.

4.3.4: Teachers should be sufficiently/ properly trained in modern industrial technologies:

Analysis:

Bangladesh faces a critical shortage of qualified teachers in textile education. The crisis, which affects both government textile colleges and diploma institutes, is marked by poor student-teacher ratios and a lack of industry-experienced faculty. Consequently, heavy reliance on guest lecturers and diploma-level teachers is severely compromising practical education. So Teachers should be sufficiently recruited for better education.

4.3.5: Mechanisms should introduce for curriculum review and updating regularly:

Analysis:

Curriculum review and updating are essential to ensure learning remains relevant, engaging, and aligned with modern industry standards and student needs and regarding this a mechanism should introduce.

4.3.6: Biggest administrative challenges in coordinating multiple public educational institutions:

Analysis:

Communication gaps, staff shortages, and uneven implementation of policies across educational institutions are problem.

Overall FGD Summary

The analysis reveals that Bangladesh's public technical and textile education system has made progress in expanding educational access, but significant challenges remain in quality assurance and labor market alignment. Key concerns include outdated curricula, insufficient practical training, weak industry-academia collaboration, shortages of qualified teachers, and inadequate infrastructure. While monitoring and supervision mechanisms exist, they often focus on administrative compliance rather than performance outcomes. Participants strongly emphasized the need for regular curriculum modernization, structured internships, teacher professional development, and stronger industry participation in policy and curriculum design. Addressing these issues is essential for improving graduate employability, reducing skill gaps, and ensuring that technical education contributes effectively to national industrial development and economic growth.

5. Conclusion

Textile education plays a vital role in developing the skilled workforce required for Bangladesh's textile and apparel sector, which is one of the country's most important economic contributors. This study finds that although textile institutions produce a significant number of graduates each year, several challenges limit their effectiveness in meeting industry demands. The existing curriculum often lacks alignment with rapidly changing industrial technologies and practices, while practical training facilities and laboratory resources remain inadequate in many institutions. As a result, graduates frequently possess strong theoretical knowledge but face difficulties in applying technical skills in real workplace settings. The study also highlights weaknesses in internship and industrial attachment programs, which reduce opportunities for students to gain hands-on experience and industry exposure. In addition, deficiencies in communication, teamwork, problem-solving, and leadership skills affect graduates' employability and career progression. These skill gaps contribute to the continued reliance of some industries on foreign professionals and technical experts for specialized positions.

To improve labor market outcomes, stronger collaboration between educational institutions and industry stakeholders is essential. Regular curriculum updates, enhanced practical training, modern laboratory facilities, effective internship programs, and greater emphasis on soft-skill development can help bridge the gap between education and employment. Addressing these challenges will strengthen workforce competitiveness, support industrial growth, and contribute to the sustainable

6. Recommendations: To improve the quality and effectiveness of textile education institutions, clear job descriptions should be established for the education section within the Department of Textiles to ensure proper monitoring and management. A dedicated focal point in the ministry should oversee and coordinate the monitoring of textile institutions. The textile curriculum should be updated regularly to align with current industry requirements and technological advancements. Greater emphasis should be placed on practical and laboratory-based learning to enhance students' hands-on skills. Strong collaboration between textile institutions and industries should be encouraged to bridge the gap between academic knowledge and industrial practice. Modern textile technologies, digital skills, and automation-related competencies should be integrated into academic programs. Laboratory equipment and workshop facilities should be upgraded to provide students with access to modern learning resources. Mandatory industrial internships should be ensured for all students, along with improved supervision and monitoring of internship programs. Training on textile machinery operation and maintenance should be strengthened to meet industry demands. Furthermore, institutions should focus on developing students' communication, presentation, teamwork, and leadership skills, while incorporating problem-solving and critical-thinking exercises into coursework to prepare graduates for professional challenges in the textile sector.

5. References

1. World Bank. (2021). Bangladesh human capital project: Investing in people (Project brief). The World Bank. https://www.worldbank.org/

2. Bangladesh Institute of Development Studies. (2022). Skills gap assessment across key sectors: Summary report. BIDS. https://www.bids.org.bd/

3. Uddin, M. F. (2022). Brief analysis on the past, present, and future of textile education in Bangladesh. In *Textile and fashion education internationalization: A promising discipline from South Asia* (pp. 35-57). Singapore: Springer Nature Singapore.

4. Alam, M. J., Ogawa, K., & Islam, S. R. B. (2022). Importance of skills development for ensuring graduates employability: The case of Bangladesh. *Social Sciences, 11*(8), 360.

5. Yunus, M., & Yamagata, T. (2012). The garment industry in Bangladesh. *Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report). Chousakenkyu Houkokusho, IDE-JETRO, 6*, 29.

6. Sarker, M. A. R., Hashim, J. B., Haque, A., & Juhdi, N. B. (2021). Graduate employability: Perception of graduate students on soft skills towards employability in Bangladesh. *Journal of International Business and Management, 4*(4), 01-14.

7. Rahman, S. (2023). Employability Skills in the Bangladeshi Readymade Garments Sector. *Zenodo (CERN European Organization for Nuclear Research).*

8. Hossain, M. Z., & Arefin, T. (2025). Bridging the Skills Gap: Examining Factors Influencing Graduate Employability in Bangladesh. *European Journal of Contemporary Education and E-Learning, 3*(2), 55-74.

9. Islam, M. M., Khan, A. M., & Islam, M. M. (2013). Textile industries in Bangladesh and challenges of growth. *Research Journal of Engineering Sciences, 2278*, 9472.

10. Mondal, M. S. A., Uddin, M. M., & Akter, N. (2024). The textile industry in Bangladesh: Growth trends, challenges, and future prospects. *Global Disclosure of Economics and Business, 13*(2), 73-86.

11. International Labour Organization. (2017). *Towards a better skilled workforce in Bangladesh RMG sector*. ILO.International Labour Organization. (2017). Towards a better skilled workforce in Bangladesh RMG sector. ILO. https://www.ilo.org/publications/towards-better-skilled-workforce-bangladesh-rmg-sector

Assessing Challenges in Textile Education & Their Effects on Skill Development and Labor Market Outcomes in Bangladesh

Focus Group Discussion Guideline for Industrialists

Participant Information

- Name of Industry: ____________________
- Position of Participant: ____________________
- Years of Experience in Textile/RMG Sector: ____________________

FGD Questions

1. What types of skills are most lacking among graduates from public textile institutions?
2. How well does the current textile curriculum match industrial requirements?
3. Are graduates adequately trained in practical and technical skills?
4. What are the major weaknesses of public textile institutions?
5. How effective are internship and industrial attachment programs?
6. What soft skills are lacking among textile graduates?
7. Why do industries still depend on foreign professionals and technical experts?
8. How can institutions improve communication and collaboration with industries?
9. Are teachers sufficiently trained in modern industrial technologies?
10. What policy or administrative changes are needed from the Ministry of Textiles and Jute or the Department of Textiles?
11. How can Bangladesh reduce skill gaps in the textile and RMG sector?

12. What recommendations would you provide for improving textile education and employability outcomes?

Assessing Challenges in Textile Education & Their Effects on Skill Development and Labor Market Outcomes in Bangladesh

Focus Group Discussion Guideline for Department of Textiles Officials

Participant Information

- Name and Designation: ______________________________
- Department/Office: ______________________________
- Years of Experience: ______________________________
- Area of Responsibility: ______________________________

Discussion Questions

1. How does the Department currently oversee Technical Educational Institutions?

2. What are the main policy priorities in managing Technical Educational in Bangladesh?

3. How effective is the present system of supervision and monitoring from the Department level?

4. What are the biggest administrative challenges in coordinating multiple Technical Institutions?

5. How decisions are made regarding Quality Assurance and Institutional Improvement?

6. How does the Department ensure that curricula remain relevant to Industry Demand?

7. What mechanism exists for reviewing and updating Technical Education Curricula?

8. How are practical training and industry attachment incorporated into policy?

9. What gaps exist between Department Expectations and Institutional Implementation?

10. How does the Department handle teacher recruitment, posting and professional development?

11. What are the major staffing challenges affecting Technical Institutions?

12. Are current budgets and resources sufficient for quality Technical Education?

13. What role does the Department play in improving Laboratory, Workshop and Teaching facilities?

14. How are Institutions evaluated for performance and compliance?

15. What are the main reasons of many technical graduates face employability problems and what policy changes are needed to reduce them?

Probing Questions

- Can you explain that further?

- What evidence or example supports this view?

- Why is this problem happening?

- Who is responsible for addressing it?

- What practical solution would you suggest?

- How urgent is this issue?

- What impact does this have on students and graduates?