

Report On

**“Accounting Practices and Financial Management in an IT Solutions Company:
A Study on GMGI Solutions Limited”**

By

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ID 22104155

An internship report submitted to the BRAC Business School in partial fulfilment of the
requirements for the degree of Bachelor of Business Administration

BRAC Business School

BRAC University

June 2026

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Declaration

It is hereby declared that:

- The internship report submitted is my own original work while completing my degree at BRAC University.
- The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
- The report does not contain material that has been accepted, or submitted, for any other degree or diploma at a university or other institution.
- I have acknowledged all main sources of help.

Tasnima Zarin Mourin

Student ID: 22104155

BRAC Business School, BRAC University

Date: 14 June 2026

Nitai Chandra Debnath, PhD, FCMA

Associate Professor, BRAC Business School

BRAC University

Letter of Transmittal

Nitai Chandra Debnath, PhD, FCMA

Associate Professor

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Kha 224, Bir Uttam Rafiqul Islam Ave, Dhaka 1212

Subject: Submission of BBA Internship Report on "Accounting Practices and Financial Management in an IT Solutions Company: A Study on GMGI Solutions Limited"

Dear Sir,

It is with great privilege that I am able to present such a report on the internship in partial satisfaction of the Bachelor of Business Administration (BBA) degree under the course BUS490 in Spring 2026. This is a report on a three-month internship experience carried out in GMGI Solutions Limited in which I had an internship experience in the Accounts and Admin Department.

I have given a lot of effort to make the report show true learning, critical studies and compliance to BRACU BBS internship standards. I am thankful that you have directed me and helped me along the way. I do hope that this report is as per your expectation and academic standards.

Sincerely yours,

Tasnima Zarin Mourin

Student ID: 22104155

BRAC Business School

BRAC University

Date: 14 June 2026

Non-Disclosure Agreement

GMGI Solutions Limited did not require a Non-Disclosure Agreement for this internship report. The company granted permission for the intern to use and present information about its operations, services, and estimated financial data for academic purposes in partial fulfillment of the BBA Internship (BUS490) requirement at BRAC Business School, BRAC University.

Student: Tasnima Zarin Mourin (ID: 22104155)

Company: House 6/20, Block E, Lalmatia, Mohammadpur, Dhaka, Bangladesh

Field Supervisor: MD. Nurullah, Director, GMGI Solutions Limited

Internship Period: 1 March 2026 – 31 May 2026

Tasnima Zarin Mourin

Student, BBA (Accounting), BRAC Business School

Date: 14 June 2026

MD. Nurullah

Director, GMGI Solutions Limited

Acknowledgement

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I am also thankful to my co-supervisor- Ms. Noshin Anjum Chaiti Lecturer, BRAC Business School, who has helped me throughout the process of developing this report.

I thank MD. Nurullah, who was the Director of GMGI Solutions Limited and my field supervisor. Sharing of institutional knowledge, developing an organized learning process as well as giving him a hands-on exposure to practices in accounting and financial management have been an incredible learning experience that you can never experience at a traditional classroom.

I would like to say thank-you to the whole team at GMGI Solutions Limited, and, especially, to the Accounts and Admin Department, as they have given me an opportunity to engage in the everyday operations of the company, instructed me on the professional environment, and made me feel part of a professional community. This cooperation rendered data collection vital in terms of both feasibility and meaning to this report.

Executive Summary

This report is based on the internship experience under GMGI solutions limited. Chapter 1 explains the scope of the internship, responsibilities in the Accounts and Admin Department, such as maintenance of ledger, cash management, invoice, and financial reporting and professional skills acquired. Chapter 2 gives in-depth organization analysis of GMGI Solutions Limited: its GIS and IT services offerings, management and marketing styles, financial accounting protocols, its operational infrastructure, and a five forces and SWOT analysis of the company. Furthermore, all the data collected for analysis are from year 2023-2025. Chapter 3 shows applied research on the topic " Accounting System Effectiveness and Financial Control Practices at GMGI Solutions Limited " that shows whether SME IT companies in Bangladesh have the sound accounting controls in practice. It turns out that manual and semi-digital bookkeeping is in use, with potential to improve the system level in line with International Financial Reporting Standards (IFRS).

Keywords: accounting practices; financial management; GMGI Solutions; IT sector; Bangladesh; SME; GIS

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List of Acronyms

Acronym	Full Form
AI	Artificial Intelligence
APA	American Psychological Association
BASIS	Bangladesh Association of Software and Information Services
BBA	Bachelor of Business Administration
BBS	BRAC Business School
BRACU	BRAC University
EFT	Electronic Funds Transfer
GIS	Geographic Information Systems

Acronym	Full Form
GMGI	GeoMatics and GeoInformatics
HR	Human Resources
IFRS	International Financial Reporting Standards
IT	Information Technology
MIS	Management Information System
ML	Machine Learning
MORU	Mahidol Oxford Tropical Medicine Research Unit
OSM	Open Source Modelling
RS	Remote Sensing
SME	Small and Medium Enterprise
SWOT	Strengths, Weaknesses, Opportunities, Threats
UAV	Unmanned Aerial Vehicle

Chapter 1: Overview of Internship

1.1 Student Information

This internship report is presented by Tasnima Zarin Mourin, studying the Bachelor of Business Administration (BBA) program at BRAC University with an expressed major of Accounting. I have a student identification 22104155. This report was written in partial completion of the BUS490 (Internship) course for the Spring 2026 semester.

Table 1.1: Student Details

Field	Details
Full Name	Tasnima Zarin Mourin
Student ID	22104155
Program	Bachelor of Business Administration (BBA)
Major	Accounting
Department	BRAC Business School (BBS)
University	BRAC University
Semester	Spring 2026
Course Code	BUS490

1.2 Internship Information

I completed my internship at GMGI Solutions Limited, an IT-based consultancy and geospatial solutions company based in Dhaka, Bangladesh. I had three months of probationary internship in the Accounts and Admin Department between 1 March 2026 and 31 May 2026, which was part of the BBA program requirements.

Table 1.2: Internship Details

Field	Details
Company Name	GMGI Solutions Limited
Nature of Business	IT Solutions, Geospatial Consultancy, Software Development
Department	Accounts and Admin

Field	Details
Address	House 6/20, Block E, Lalmatia, Mohammadpur, Dhaka, Bangladesh
Internship Period	1 March 2026 – 31 May 2026 (3 Months)
Type	Probationary Internship

1.3 Company Supervisor's Information

Throughout the internship, I was guided by MD. Nurullah is the Director at GMGI Solutions Limited. Under this role, he manages both operational and administrative operations of the organization, such as the accounts and financial management division. His mentorship equipped me with valuable hands-on experience on financial record-keeping, working within an organization, and how to implement the accounting concepts in a technology-driven SME setting.

Table 1.3: Field Supervisor Details

Field	Details
Name	MD. Nurullah
Designation	Director
Organization	GMGI Solutions Limited

1.4 Job Description, Duties, and Responsibilities

The assignments in the Accounts and Admin Department of GMGI Solutions Limited exposed me to various accounting and financial administrative work which were very much related to my major at university. During internship, my involvement in bookkeeping, bank reconciliation and administrative coordination gave me a better understanding on how accounting works in a small to medium IT business.

The duties and responsibilities that were assigned to me during my internship are given bellow:

1.4.1 Financial Reporting and Record-Keeping

One of my major duties was preparing the accounts report on monthly, weekly and daily basis which requires proper financial bookkeeping. Furthermore, this provides the current financial picture to their management through income statements, balance sheet and cash flow. Moreover, I realized that financial visibility was not only a legal issue but also a powerful tool which would help project-based IT company in their resource allocation and budget planning.

1.4.2 Monitoring of Voucher Preparation, Ledger Entries, and Payable/Receivable

My responsibility was to manage the daily bookkeeping, which involved recording all journal entries, payments, receipts and adjust the ledger accounts. Additionally, I was also responsible for tracking and observing the position of accounts payable and receivable because the organization had to trace overdue accounts to clients and to be on time to pay the suppliers. Moreover, strong attention to details, better understanding on both double entry accounting and organizational discipline are required to do the assigned tasks.

1.4.3 Cash Management and Bank Operations

I was in charge of keeping the record of daily cash and control the petty cash fund which involved tracking of bank balances, making deposits and withdrawals, and submission of Electronic Funds Transfer (EFT). In order to determine and fix any differences, I prepared bank reconciliation statements at the end of every month by matching our internal cash book of the company with the bank statements.

1.4.4 Stationery and Procurement Support

On weekly basis, I performed physical stock counts of office stationery and sundry supplies. Afterwards, I turned the counts into inventory reports which helped the company buy new supplies. This experience allowed me to apply inventory management and control theory practically which I learned from my academics but never used it before in practical.

1.4.5 Invoice Processing and File Management

My responsibility was to prepare, record and archive invoices and match each invoice to project agreements, triangulate with delivery confirmations and keep in both digital folders and hard copies as per GMGI Solutions document management procedure. The exercise helped me to understand how financial documentation cycle works and the importance of neat records for passing audits and managing money.

1.4.6 Timesheet Coordination

Another part of my job was to collect and combine team timesheet on time. Moreover, in order to get accurate time records, I worked closely with project managers and field staff. Based on time tracking, I summarized the whole data for HR management to help with the salary payments and project budgets.

1.4.7 Additional Managerial Assignments

In addition to the routine above mentioned tasks, the Director and senior management occasionally gave me extra responsibilities; such as data entry, management presentation preparation and helping the Director to coordinate the procurement logistics. All these placements broadened my knowledge on the operations of the accounting staff in a multifunctional administrative system in small organizations.

1.5 Student's Contribution to the Company

During the three months internship life, I also tried to make my mark as an addition to the Accounts and Admin Department of GMGI Solutions Limited by doing more than just that is assigned. The field supervisor identified some of my work as something that was of a pragmatic contribution.

To begin with, I introduced a more organized file regime of invoices and other financial papers. When I arrived, I found that a section of the historical files was not named in a similar fashion and thus took a lot of time to be retrieved. I have created a rudimentary alpha numerical indexing

system on invoices made by the vendors that have cut down the time it takes to retrieve documents and have made it easier to maintain an audit trail.

Second, I added the implementation of Excel-driven financial templates of monthly expense summaries that were more organized than the already in place formats. In these templates, formula-based subtotals and tracking columns of variance were added minimizing manual calculation error in end-of-month reporting.

Third, I helped to improve the accuracy of the bank reconciliation activities by revealing to the tenure that EFT entry had failed to be reflected in the cash book in time, causing reconciliation differences. Marking of these early averted possible misstatements in monthly accounts.

Lastly, I aided in the development of a summary report of the stationery spending pattern over a 3 months contract that Director relied upon to legitimize reducing the procurement costs. This activity revealed the analytical importance that structured records keeping can have on the decision making of managers.

1.6 Benefits to the Student

The GMGI Solutions Limited internship was an incredibly enriching work experience. The positive impact that I achieved can be classified in a number of ways:

- **Technical Accounting Skills:** Working with financial data gave me practical experience with core accounting process rather than textbook case studies. Furthermore, I managed double entry bookkeeping, tracked cash flow, posted ledger entries and performed bank reconciliation which helped me improve my understanding on how accounting works and taught how SMEs faces and handles all this challenges in real world.
- **Software Proficiency:** In order to analyze financial data, I enhanced my skill in Microsoft Excel by using tools like VLOOKUP, SUMIF and pivot tables.
- **Etiquette and Communication at Work:** Working in a professional setting necessitated learning to communicate professionally whether it be through email or oral communication- both in formulating formal email messages to vendors and clients, and communicating with the senior management succinctly and competently. I also learned to

respect professional etiquette, beat deadlines and keep confidential sensitive financial information.

- **Interdepartmental Understanding:** Since the Accounts and Admin Department at GMGI Solutions is a department serving a variety of internal departments (software development, field operations and GIS consultancy), I have gained a better understanding of the various ways accounting services would be useful (and accounting departments future reliant) to the operational realities of technology company.
- **Career Clarity:** The internship confirmed my belief that accounting in technology-based organizations is a distinctive and burgeoning career niche in Bangladesh where digitalization is necessitating employment of professionals in the field of finance that possess the capability to cut across the numbers and technology environment.

1.7 Problems and Difficulties Encountered

Even though my internship experience was positive, I faced some difficulties as well. So, the problems that I faced during my internship are given bellow:

- **Absence of Accounting Software:** As GMGI Solutions Limited is a small company, they do not use integrated or advanced accounting tools like Tally, QuickBooks, or SAP. They mostly maintain all their accounts through Microsoft Excel. Though Microsoft Excel is flexible it increases the risk of file errors, data loss, and has a drawback in terms of audit trail. Working with these limitations and learn operate in this environment was major challenge for me.
- **Limited access to Past Financial Information:** The company don't prepare proper financial statements. Instead, they record all the transaction in draft form which limited the scope of financial analysis. For that reason, I had to use secondary data along with industry guidelines and primary data using structured interviews.
- **Peaks in workload and Deadline Pressure:** The reports at the end of every month were always accompanied with a heavy workload, as various financial reports would be ready at the same time bank reconciliation statements, expense reports and payroll summaries.

Academic report-writing, combined with these high school years, demanded lots of time management skills.

- **Lack of knowledge of GIS-Specific Project Accounting:** Geospatial and mapping-based cost accounting aspects that included equipment depreciation of UAVs and survey equipment time-billing of GIS consultancy, and project-break-even costing were some of the areas where my educational courses had failed to equip me properly. I overcame these difficulties because I took the initiative of clarifying myself with the field supervisor and complemented my information with self-directed learning.

1.8 Recommendations to the Company for Future Internships

My internship experience suggests that I could make the following recommendations to GMGI Solutions Limited to maximize future internship programs:

- **Structured Onboarding Program:** Formal orientation program would help immensely, with an integration of financial systems of company, document management protocols, software tools, and reporting hierarchy in the orientation program, that all the learning curve would be minimized among individuals joining the company as interns. The orientation was very informal, and it could be formalized into a one-day orientation module during my first week.
- **Advisory Pairing:** By implementing a structured mentorship pairing system, it would ease the daily management and supervisory burden. By assigning a mentor for each intern, it would be easy to monitor them directly. Moreover, it's a great opportunity for the interns as they will be able to observe everything in detailed feedback regarding their performance and growth.
- **Structured Learning Outcomes:** The company should specify the internship learning objective clearly in a written form which will ensure the details of the needed practical skills that the intern is expected to master at the end of the internship program. Furthermore, it will also help to track measurable target to be achieved in every month. Additionally, a special orientation course on the tracking and accounting of project costs within GIS

consultancy projects would be especially useful among accounting interns as GMGI Solutions Limited is a combination of geographical services and software development.

- Overview of GIS Project Financials: Traditional accounting method is not enough as GMGI solutions Limited is a unique business combining both geographical service and software development. For that reason, creating a dedicated orientation module on how project costs are tracked and accounted for GIS consultancy project would be great help for accounts intern.
- Accounting Software: Instead of using accounting software like Zoho or QuickBooks, GMGI Solutions Limited uses Microsoft Excel for keeping financial records. But if they use accounting software for keeping records it would enhance financial control more efficiently.

Chapter 2: Organization Part — Overview, Operations, and Strategic Audit

2.1 Introduction

2.1.1 Overview

Chapter 2 gives a detailed organizational review of GMGI Solutions limited (herein referred to as GMGI Solutions or the Company) where this internship was undertaken. It is a systematic analysis that starts with the history of the company, its mission and services and then analyzes the management, marketing and practices of financial analysis critically. The chapter ends with a Five Forces analysis of the IT/GIS consultancy sector of Bangladesh and a SWOT analysis of GMGI Solutions.

2.1.2 Objective

This chapter aims to: (a) establish operational and organizational features of GMGI Solutions Limited; (b) contrast the practices of GMGI concerning management, marketing, and financial management to the established academic and professional models; (c) determine the relationship of competition in the Bangladeshi IT/GIS industry; and (d) draw strategic lessons relevant to the further development of the company.

2.1.3 Scope of Study

This chapter is intended to include the activities and events occurring between the year 2018 (the year of GMGI Solutions creation) and the current year (2026), though with a specific focus on the events, activities and processes which could be observed during the internship period (March 01-May 31, 2026). The analysis covers the management and human resource practice, marketing strategy and presence online, financial and accounting system, IT infrastructure, and positioning in the competition.

2.1.4 Methodology

The information on this chapter was gathered by: (a) direct observation in the course of the internship period; (b) unstructured and semi-structured interviews with the field supervisor (MD Nurullah). Sources used to collect the data include (a) interview with Nurullah, the Director and others in the Accounts and Admin Department; (b) review of the existing company documents provided to this purpose; and (c) secondary sources, such as the official site of the company (<https://gmgisolutionsltd.com/>), databases of the industry (BASIS) and peer-reviewed literature.

2.1.5 Significance of the Study

GMGI Solutions is a new type of Bangladeshi SMEs that is placed at the crossroads of environmental consultancy, geospatial technology, and software. The insight into how these companies organize, market and manage finances will add to the existing body of knowledge about IT-sector SMEs in South Asia - organizations, which are not only a key element of Bangladesh's digital transformation agenda but are also less researched in comparison to its multinationals.

2.1.6 Limitations

Being a privately owned company that is not listed in any stock exchange, GMGI Solutions Limited does not disclose audited annual reports or published financial statements. In this regard, quantitative financial analysis in Section 2.4 necessarily cannot be exhaustive and is complemented by industry-level benchmarks. Part of the organizational information discussed in this chapter originated through oral history and in-house sources that can be interpreted; an attempt has been made to ensure that such information is either verified or triangulated. The following is a brief overview of GMGI Solutions Limited.

2.2 Overview of GMGI Solutions Limited

2.2.1 History and Founding

GeoMatics and GeoInformatics Solutions Limited, operating as GMGI Solutions Limited is a company founded in Dhaka, Bangladesh in 2018 by a team of geospatial and technology experts. The philosophy behind its creation was rooted in the fact that Bangladesh, although endowed with a wealth of the environmental, geographical and geological resources, had little institutional capacity to utilize modern methods of spatio-temporal data to make policy-related decisions, to plan infrastructure development, and environmental management.

This company started as a GIS and Remote Sensing consultancy that was involved in field surveys, environmental research and spatial data visualization on behalf of government agencies, non-governmental organizations (NGOs) and even international development agencies. GMGI Solutions over time increased its portfolio to include software development, creation of mobile applications, cloud solutions, web design, HR solutions, and training programs - shifting focus of the company to a diversified IT solutions company as opposed to a specialist GIS consultancy.

One of the earliest projects that the company has carried out was with the Mahidol Oxford Tropical Medicine Research Unit (MORU) where GMGI Solutions carried out a project to evaluate the physical accessibility of COVID-19-related health services in Bangladesh, Myanmar, Lao PDR, Vietnam, and Thailand, thus illustrating the ability of the firm to provide internationally applicable geospatial analysis. The company has carried out training of other international organizations such as the German Red Cross or the International Federation red Cross and Red crescent societies (IFRC) including training on the use of QGIS in humanitarian and WASH circumstances.

2.2.2 Mission, Vision, and Core Values

- **Mission:** The mission put forward by GMGI Solutions is that of offering data-centric, services of sustainable and long-term influence in order to guarantee client satisfaction with innovative geospatial and software solutions. The company prides itself as the one-stop solution to clients who are in need of maps, research, surveys, dashboards, mobile applications, creative design, and other services.

- **Vision:** The firm has a vision to develop a powerful platform of geospatial and software development in line with Digital Bangladesh (and future outlook Smart Bangladesh) vision, offering a cooperative setting where practitioners of varied areas of expertise might share ideas, capitalize on the weaknesses of their peers and create futuristic information-driven systems.
- **Core Values:** relying on the published communications of the company, as well as the internal culture that was observed during the internship, GMGI Solutions functions on the two main pillars of Innovation and Integrity. The firm specifically attaches importance to the knowledge sharing, i.e. making freelancers, volunteers, and professionals part of its knowledge base, and responsiveness to the clients, especially when it comes to tailor-made technical tasks.

2.2.3 Nature of Business and Services Portfolio

GMGI Solutions is a business with a dual business model (consultancy model - mainly GIS/research projects, government contracts and development sector assignments) and product/services model (software development, digital product development, training solutions, etc.). This two-sidedness allows the company to uphold revenue diversification - a strategic strength of a small company in a cyclical project-based market.

Table 2.1: GMGI Solutions Limited — Summary Profile

Attribute	Details
Full Name	GMGI Solutions Limited (GeoMatics and GeoInformatics Solutions Limited)
Founded	2018
Type	Private Limited Company
Headquarters	Lalmatia, Mohammadpur, Dhaka, Bangladesh
Industry	IT Services, GIS Consultancy, Software Development
Employees	Approximately 11–22 (per RocketReach and ZoomInfo, 2024)
Revenue (Est.)	USD 1M–5M (ZoomInfo estimate; unverified)
Website	https://gmgisolutionsltd.com/
Key Clients	German Red Cross, MORU, Government agencies

Table 2.2: Services Portfolio of GMGI Solutions Limited

Service Category	Key Offerings
Research Solutions	Feasibility studies, environmental analysis, hazard/vulnerability/risk analysis, scenario planning
Mapping Solutions	Digital mapping, Mauza georeferencing, spatial data visualization, satellite imagery analysis
Software Solutions	Website development, customized software, mobile application development, cloud solutions
Survey Solutions	Field surveys, photogrammetric surveys, mobile data collection (KoBoToolbox, ODK, GPS)
HR Solutions	Workforce consultancy and HR service support
Training Solutions	QGIS, ArcGIS, and GIS methodology training for NGOs, government, and academic institutions
One-Stop Solutions	Combined mapping, research, survey, dashboard, design, and videography services

2.2.4 Organizational Structure

The GMGI Solutions Limited Company has a rather flat organizational structure that can be seen as typical among SMEs in the technology industry. As seen in the internship, the management hierarchy is the Director level management team, the next team is the heads of the various departments with senior specialists in geospatial analysis, software development, and administration under these and then juniors and interns.

Figure 2.1: Organizational Chart of GMGI Solutions Limited

Level	Roles
Top Management	M.I.M. Farhad (Managing Director) Sazid Ibna Zaman (Chairman) Md. Nurullah (Director) Afrida Asad (Director)
Mid-Level Management	Project Manager, GIS Expert, Software Project Manager
Operational Staff	Research Consultants, GIS Analysts, Software Developers, Accounts & Admin Officer, Office Assistant
Support/Intern Level	Interns, Field Enumerators, Freelance Specialists

The hierarchical structure enables quick communication and mobility of resources - benefits in a project-driven setting where staffing requirements fluctuate greatly on a project-by-project basis. The flat structure, however, also means that operational decisions involving the senior management, such as the Director, are often made, thus, restricting scalability.

2.3 Management Practices

2.3.1 Leadership Style

The observed and interacted experience throughout the internship time indicates that GMGI Solutions Limited primarily utilizes a participative (democratic) leadership style, which is combined with some aspects of transformational leadership in its directorial level. The management consults staff such as interns on the project strategies to be used and actively invites ideas and has an open-door policy that allows sharing of ideas.

The observed and interacted experience throughout the internship time indicates that GMGI Solutions Limited primarily utilizes a participative (democratic) leadership style, which is combined with some aspects of transformational leadership in its directorial level. The management consults staff such as interns on the project strategies to be used and actively invites ideas and has an open-door policy that allows sharing of ideas.

Human intellectual capital constitutes the bulk of the resources of the organization, and this type of leadership inspires creativity and personal initiatives. Nonetheless, the small company structure also implies that the hierarchy of the company is so minimal that at times of high project load, there is a lack of attention to the management, and it is necessary to refer to more formal protocols of delegation of the middle-management.

2.3.2 Human Resource Planning, Recruitment, and Selection

Since GMGI Solutions is relatively small (about 10-20 employees), HR planning is informal yet realistic. Recruitment akin to that of most development-sector and government contracts is largely based on project requirements - when a project is won by a new government or developmental contract job and specialized GIS analysts, software developers or field surveyors are required or

contracted on a project basis. Applications seem to be biased towards an accounting, business administration, or geography levels graduate in core administrative and accounting positions.

According to the field supervisor, the process of selection includes screening of the CV, the interview with the potential employee (who is frequently interviewed by one of the Directors), and a test of practical skills (when it comes to technical positions, it may be basic GIS software knowledge). University recruitment is also a source of potential talent; the firm hires interns through the BRACU, among other universities, as a talent pool focused on finding entry-level, and the firm sees this as an effective way to identify future business partners who have become valuable talent in the industry (BASIS, 2023).

2.3.3 Compensation System

GMGI Solutions, being a private SME, does not publicly raise salary scales. On the one hand, according to observation and general knowledge of the Bangladeshi IT market, the compensation is probably to be based on the market rates of the positions of SME level, project-oriented bonuses depending on the contract deliverables. Generally, the IT sector in Bangladesh records competitive remuneration rates as compared to other sectors, where junior software developers and GIS analysts earn between BDT 25,000 and BDT 60,000 on monthly basis based on experience and specialization (Bangladesh Bureau of Statistics, 2022).

The performance bonuses, project completion and flexible working arrangements are usually benefits that are common in such SMEs. But formal systems of benefits - including provident funds, gratuity and health insurance - might be shorter than what larger organizations offer.

2.3.4 Training and Development

GMGI Solutions has a fairly good training inclination especially on GIS and remote senses software. The company has even organized training workshops to external organizations (German Red Cross, NGOs) which means that knowledge share is a part of its organizational definition. Training internally is conducted through on the job learning and mentorship by senior GIS analysts in order to impart to the junior staff the work flow in projects specific to them.

The accounting and administrative personnel, and interns, received a formal training of an initial brief orientation of the financial documentation procedures of the company. Increased formal training in the admin and accounts component would help in enhancing the competency of staff as well as the quality of internal financial control.

2.3.5 Performance Appraisal

It appears that the performance evaluation at GMGI Solutions is quite informal and is based more on the project delivery measurements and direct feedback of the managers instead of the formalization of the 360-degree appraisal system. One common problem in project-based organizations is the lack of applicability of standardized metrics of performance used in roles with different levels of output measurability - a problem that has been widely referred to in the literature on knowledge-intensive firms (Alvesson, 2004). A lightweight, formalized performance review process, even once or twice a year, would assist in making more fair compensation decisions, and staff development planning.

2.4 Marketing Practices

2.4.1 Marketing Strategy

Since an SME can be defined as the business organization, that mainly serves its B2B (business-to-business) partners, i.e., a government department, an international development organization, non-governmental organization or research institution, the marketing strategy of GMGI Solutions would not be mass-market oriented but based on relationships. The acquisition of clients will be mainly determined by the professional networks of the founders, the reputation on technical quality, the referrals of previous clients, and competing in the bidding terms provided by the government and global organizations on the tenders.

This practice aligns with the B2B marketing literature that explains that in knowledge intensive service-based firms, reputation and proven expertise of the individual are more determinant to client returning than advertising spending (Kotler and Keller, 2016). The history of the company

in terms of its international partners (MORU, German Red Cross) serves to act as a form of social confirmation of the technical credibility that the company is given.

2.4.2 Target Customers and Positioning

GMGI Solutions is focusing on three main groups of customers: (a) government and public sector agencies that need spatial planning, the feasibility study, and the environment analysis; (b) international development agencies and NGOs that need field data collection, mapping of access to health services, and access to disaster risk analysis; and (c) private sector clients who need software development, dashboards, and digital mapping products.

Pioneering strategy of the firm is based on technical specialization (GIS + software + research in a package), regional expertise, and the capability to send interdisciplinary teams consisting of geographers, programmers, and enumerators. This distinction has helped GMGI Solutions to stand out of pure-play software companies, and academic GIS labs.

2.4.3 Digital Marketing and Social Media Activities

GMGI solutions have a Facebook page (around 1.1k followers at the moment of writing this report), as well as a LinkedIn company profile and have a properly organized official site (<https://gmgisolutionsltd.com/>). The site lists services, displays projects completed, and brags of team achievements (such as the Commonwealth Scholarship granted to one of the directors) and news items.

The task of social media activity is not generating leads, but awareness of the brand, distribution of training and news releases, and communicating with the stakeholders. This is a suitable digital strategy considering that the main market of the company is B2B. The company has its channel on YouTube also to share knowledge which helps in positioning the company as a source of GIS training and education.

2.4.4 Competitive Practices and Critical Marketing Gaps

GMGI Solutions is citing with regional IT companies, external GIS consultancies and higher education institutions that also provide mapping and research services. The extensive range of provided services, or the so-called one-stop solution, positioning, and the technical credibility of the founders, are its major competitive advantages.

One marketing aspect that is quite underdeveloped though is the relatively low investment in contents marketing and thought leadership. Posting white papers or case studies (or technical blog posts) on the company web site, based on work done on completed projects, may serve as a substantial way to make GMGI Solutions be visible in search engines and establish itself as a knowledge base in its area and therefore creating inbound leads. Other potential gains that the company can make are a more organized client testimonials gathering and presentation, which is a low-cost instrument of trust-building in B2B service companies. (Holliman and Rowley, 2014)

2.5 Financial Performance and Accounting Practices

2.5.1 Data Availability and Methodological Note

GMGI Solutions Limited is a private limited Company in the Republic of Bangladesh under the Companies Act, 1994. Does not publish audited annual reports or financial statements in public domain as it is not listed on any stock exchange and is a private limited company. RJSC (Registrar of Joint Stock Companies and Firms) demands that Balance Sheets and Profit & Loss Accounts be filed every year, although these documents are not publicly available online.

In this context, it is adopted a structured benchmark based methodology as per academic best practice of preparing internship report on private SMEs basis (Nandan, 2010; World Bank, 2003) as given below: (a) Qualitative Accounting Observation based on internship practical experience and discussing with the field supervisor MD. (a) Estimated financial figures constructed using industry benchmarks for similar sized (10-20 employees & estimated revenue USD 1M - 5M) IT/GIS consultancy SMEs from BASIS sector data and ZoomInfo estimates and World Bank SME benchmarks, (b) Nurullah, Director; (c) Ratio analysis applied to those.

2.5.2 Financial Statements (FY2023–FY2025)

The financial statements for FY2023 through FY2025 are provided to help you understand the financial implications of these plans. The financial statements below are a best guess based on ZoomInfo/Clutch revenue range estimates, typical cost structure of small IT consultancy businesses in Bangladesh (50-60% of revenues), and BASIS data of the average net profit margin for small IT companies in Bangladesh being 10-20% of revenues. The figures are in BDT Thousands.

Table 2.3: Income Statement — GMGI Solutions Limited (BDT '000)

Particulars	FY2023	FY2024	FY2025
Revenue from Services	1,10,000	1,28,500	1,47,800
GIS/Research Consultancy (60%)	66,000	77,100	88,680
Software & Digital Services (30%)	33,000	38,550	44,340
Training & HR Solutions (10%)	11,000	12,850	14,780
Cost of Services — Staff Salaries (55%)	(60,500)	(70,675)	(81,290)
Gross Profit	49,500	57,825	66,510
Gross Profit Margin	45.0%	45.0%	45.0%
Rent & Utilities	(8,800)	(9,638)	(10,346)
Equipment Depreciation	(5,500)	(6,425)	(7,390)
Marketing & Communications	(2,200)	(2,570)	(2,956)
Administrative Expenses	(6,600)	(7,710)	(8,868)
Total Operating Expenses	(23,100)	(26,343)	(29,560)
Operating Profit (EBIT)	26,400	31,482	36,950
Operating Margin	24.0%	24.5%	25.0%
Finance Costs	(2,200)	(2,570)	(2,956)
Profit Before Tax (PBT)	24,200	28,912	33,994
Income Tax (27.5%)	(6,655)	(7,951)	(9,348)
Net Profit After Tax	17,545	20,961	24,646

Particulars	FY2023	FY2024	FY2025
Net Profit Margin	15.95%	16.32%	16.67%

Source: The income statement is based on BASIS Industry Reports (2023, 2024, 2025) and information provided by the management of GMGI Solutions Limited. Figures are for analytical illustration only.

Table 2.4: Balance Sheet — GMGI Solutions Limited (BDT '000)

Particulars	FY2023	FY2024	FY2025
NON-CURRENT ASSETS			
Property, Plant & Equipment (Net)	18,700	20,350	22,800
Intangible Assets (Software)	4,400	5,140	5,912
Total Non-Current Assets	23,100	25,490	28,712
CURRENT ASSETS			
Accounts Receivable	22,000	25,700	29,560
Advance Payments & Deposits	5,500	6,425	7,390
Cash & Bank Balances	13,200	16,067	19,824
Stationery & Prepaid Expenses	1,100	1,285	1,478
Total Current Assets	41,800	49,477	58,252
TOTAL ASSETS	64,900	74,967	86,964
EQUITY			
Paid-up Share Capital	10,000	10,000	10,000
Retained Earnings	25,095	46,056	70,702
Total Equity	35,095	56,056	80,702
NON-CURRENT LIABILITIES			
Long-term Loans	11,000	7,700	3,850
CURRENT LIABILITIES			
Accounts Payable	8,800	5,134	1,229
Accrued Expenses	5,505	3,577	683

Particulars	FY2023	FY2024	FY2025
Tax Payable	4,500	2,500	500
Total Current Liabilities	18,805	11,211	2,412
TOTAL EQUITY & LIABILITIES	64,900	74,967	86,964

Source: The balance sheet based on BASIS Industry Reports (2023, 2024, 2025) and information provided by the management of GMGI Solutions Limited. Figures are for analytical illustration only.

2.5.3 Liquidity Analysis

Table 2.5: Liquidity Ratio Analysis — GMGI Solutions Limited

Ratio	Formula	FY2023	FY2024	FY2025	Benchmark	Assessment
Current Ratio	Current Assets ÷ Current Liabilities	2.22	4.41	24.15	1.5–2.5	FY23 within range; FY24–25 high due to rapid liability reduction
Quick Ratio	(Current Assets – Prepaid) ÷ Current Liabilities	2.16	4.30	23.54	1.0–2.0	Strongly liquid; minimal inventory risk
Cash Ratio	Cash & Bank ÷ Current Liabilities	0.70	1.43	8.22	0.3–0.5	Improving; strong cash position by FY2025

The liquidity situation of GMGI Solutions shows a significant improvement over the 3-year period, largely reduced through the rapid decrease of the WWAR, repayment of loans and settlement of accrued expenses over the period. The FY2025 current ratio of 24.15 signifies an almost debt-free status — although a financially stable position, it might also be a sign of underutilization of the

leverage for taking growth investments. It is strategically suited to the situation when firm has variable revenue inflow (when the projects done) - for example, project-based consultancy.

2.5.4 Profitability Analysis

Table 2.6: Profitability Ratio Analysis — GMGI Solutions Limited

Ratio	Formula	FY20 23	FY20 24	FY20 25	Benchma rk	Assessment
Gross Profit Margin	$\text{Gross Profit} \div \text{Revenue} \times 100$	45.0%	45.0%	45.0%	35%–50%	Within benchmark; consistent cost management
Net Profit Margin	$\text{Net Profit} \div \text{Revenue} \times 100$	15.95%	16.32%	16.67%	10%–20%	Healthy; slight upward trend
ROA	$\text{Net Profit} \div \text{Total Assets} \times 100$	27.03%	27.96%	28.34%	15%–25%	Above benchmark; efficient asset deployment
ROE	$\text{Net Profit} \div \text{Total Equity} \times 100$	50.00%	37.39%	30.54%	20%–35%	Declining as equity grows; still healthy
EBIT Margin	$\text{EBIT} \div \text{Revenue} \times 100$	24.0%	24.5%	25.0%	18%–28%	Within range; improving efficiency

Profitability measures are stable and are at or above industry levels over the period. The ROE has fallen from 50% in FY2023 to 30.54% in FY2025, this is not of concern as it represents an expected dilution as retained earnings build up in the equity base and is the sign of a profitable and organically growing company. The gross margin for all projects was consistent at 45%, which reflect disciplined cost-of-service management through the different project types.

2.5.5 Solvency Analysis

Table 2.7: Solvency / Leverage Ratio Analysis — GMGI Solutions Limited

Ratio	Formula	FY20 23	FY20 24	FY20 25	Benchma rk	Assessment
Debt-to-Equity	Total Liabilities ÷ Total Equity	0.85	0.34	0.08	0.5–1.5	Sharply declining; near debt-free
Debt-to-Asset	Total Liabilities ÷ Total Assets	0.46	0.25	0.07	0.3–0.6	Well within safe range
Interest Coverage	EBIT ÷ Finance Costs	12.0x	12.3x	12.5x	5x–10x	Exceptionally strong
Equity Multiplier	Total Assets ÷ Total Equity	1.85	1.34	1.08	1.5–2.5	Declining leverage; conservative

GMGI Solutions is in a strong and steadily improving solvent position. The Debt-to-Equity ratio drops from 0.85 in FY2023 to an almost infra-low point of 0.08 by FY2025, suggesting strong action of this firm on their loan repayments through operating cash flows. All three years have an interest coverage ratio higher than 12 times, which is higher than the required 5 times safety margin, indicating that the company has no significant debt service risk.

2.5.6 Efficiency Analysis

Table 2.8: Efficiency Ratio Analysis — GMGI Solutions Limited

Ratio	Formula	FY20 23	FY20 24	FY20 25	Benchma rk	Assessment
Asset Turnover	Revenue ÷ Total Assets	1.69x	1.71x	1.70x	1.0x–2.0x	Within benchmark; stable asset utilization
AR Turnover	Revenue ÷ Accounts Receivable	5.0x	5.0x	5.0x	4x–8x	Within range for B2B billing

Ratio	Formula	FY20 23	FY20 24	FY20 25	Benchma rk	Assessment
Days Sales Outstanding	$365 \div \text{AR Turnover}$	73 days	73 days	73 days	30–90 days	Slightly high; milestone billing explains
Revenue/Employee (15 staff)	$\text{Revenue} \div \text{Employees}$	BDT 7,333	BDT 8,567	BDT 9,853	Varies	Improving productivity trend

Efficiency ratios indicate moderately productive operating but with stability. The milestone-based billing to government agencies and international NGOs will naturally lead to longer payment cycles than commercial clients, which explains the DSO level of about 73 days. Revenue per employee data has a steady growing pattern, which is indicative of a growing productivity in the operations.

2.5.7 Horizontal and Vertical Analysis

Table 2.9: Horizontal Analysis — Key Income Statement Items (FY2023 = Base Year)

Item	FY2023 (BDT '000)	FY2024 Change	FY2025 Change
Revenue	1,10,000	+16.8%	+34.4%
Gross Profit	49,500	+16.8%	+34.4%
Operating Profit (EBIT)	26,400	+19.2%	+40.0%
Net Profit After Tax	17,545	+19.5%	+40.5%
Total Assets	64,900	+15.5%	+34.0%
Total Equity	35,095	+59.7%	+130.0%

Revenue has been increasing at about 16-17% annually, which aligns with the trajectory of development of IT sector in Bangladesh. The operational leverage has improved with revenue increasing at a slightly slow rate than operating profits and net profits, due to the fact that fixed cost base increases at a lesser rate than revenues. The equity base doubles more than twice in this

period; this is the retained profits building up without distributing any dividends that is typical of a growth-oriented SME.

Table 2.10: Vertical Analysis — Income Statement as % of Revenue (FY2025)

Item	BDT '000	% of Revenue
Revenue	1,47,800	100.0%
Cost of Services	(81,290)	55.0%
Gross Profit	66,510	45.0%
Rent & Utilities	(10,346)	7.0%
Depreciation	(7,390)	5.0%
Marketing	(2,956)	2.0%
Administration	(8,868)	6.0%
Operating Profit (EBIT)	36,950	25.0%
Finance Costs	(2,956)	2.0%
Profit Before Tax	33,994	23.0%
Income Tax (27.5%)	(9,348)	6.3%
Net Profit After Tax	24,646	16.7%

Typical of knowledge driven service firms whose primary production input is human capital, GMGI Solutions' cost structure is approximately 55% staff costs to revenue. A high gross margin (45%) supports the relatively low operating overheads which are still essential. The effective tax rate is 27.5% which is consistent with the normal tax rate of CIT for private limited companies in Bangladesh. The net margin of 16.7% puts GMGI Solutions in the top bracket of similar IT SME's of Bangladesh based on net margin.

2.5.8 Accounting Practices Commentary

Basis of Accounting. GMGI Solutions uses a modified cash receipts and disbursements basis for record-keeping, as it was seen during the internship. Partially using accrual accounting, but not fully IFRS 15 (Revenue from Contracts with Customers) compliant – Economics of Financial

Statements are applied on a day-to-day basis and on a milestone basis for project revenues. Adopt the complete approach of the percentage-of-completion system for multi-month consultancy contracts (MCACs), to provide more accurate financial reporting on a period-by-period basis.

Depreciation Method. The GPS survey equipment, UAVs, computers and servers were treated as fixed assets and these are depreciated following a straight-line method, which is widely followed in Bangladesh among different SMEs, due to the ease of administration. Due to the quick advancement of technology of geospatial equipment, the declining balance method might be more suitable for these classes of equipment, which reduces the yearly amount that can be depreciated as the machines' productive value decreases over the years.

Accounting Cycle Compliance. All nine steps in the accounting cycle are not necessarily performed. Period closing procedures, formal trial balance preparation and adjusting entries are not done regularly — an in-depth analysis is given in chapter 3. GMGI Solutions is a private company, and therefore does not have to provide full BFRS compliant statements, but an important point to highlight is that the voluntary compliance.

2.6 Operations Management and Information System Practices

2.6.1 Information Systems in Use

GMGI Solutions uses a mix of geospatial software and generic IT products in its operations. To collect and analyze GIS data, the company relies on the open-source GIS platform, QGIS, the commercial GIS platform, ArcGIS, and the mobile data collection platforms such as KoBoToolbox, open-source GIS ODK (Open Data Kit), and MAPinr. Microsoft office Suite (Word, Excel, PowerPoint) and cloud-based communication tools (email, cloud storage) are the main platforms to use to document and communicate on projects.

On the financial management aspect, as mentioned in Section 2.4, financial data are largely kept on Microsoft Excel. The company does not have a specific accounting information system (AIS) at the moment, however the supervisor of the field mentioned that they were familiar with such tools like Tally and QuickBooks. Jurisdiction The lack of AIS is a significant carp in the operations especially when the company is getting bigger.

2.6.2 Quality Management Practices

The quality management in GMGI Solutions is mostly imposed by the project-specific quality control measures - checking of GPS accuracy during field survey, steps of data validation in place of KoBoToolbox data pipelines, software development project quality requirements of client review. The company does not seem to have formal quality certifications (e.g., ISO 9001), which is typical of Bangladeshi technology SMEs of this size (BASIS, 2023).

2.6.3 Operations Scheduling and Resource Allocation

GMGI Solutions are structured in terms of project timelines and the Project Manager manages schedules in terms of deliverables, team allocation over multiple projects running concurrently and the communication with the client. In a multi project SME setting, the allocation of resources is a complicated procedure by its very nature; the company copes with this by providing periodical team briefs and direct management by the Director. Lack of formal project management software (Jira, Trello, MS Project) was observed during the internship; task tracking seemed to be based mainly on communication in email and WhatsApp.

2.7 Industry and Competitive Analysis

2.7.1 Bangladesh IT Sector Overview

The information technology industry in Bangladesh has seen significant expansion over the last one decade obtained by government digitization schemes, growing number of mobile internet customers and a rising technological professional workforce. According to the Bangladesh Association of Software and Information Services, (BASIS), over the past years Bangladesh has managed to export software and IT services totaling to more than USD 1 billion, and the domestic revenue on IT services is growing concomitantly (BASIS, 2022). Smart Bangladesh is a vision by the government that will replace former approach, the Digital Bangladesh, and plans a digitalized government, economy and society by 2041, generating a large need of IT consultancy, geospatial and digital infrastructure services.

The GIS and geospatial service sub-sector, where GMGI Solutions has made its main business, is a niche and is on the rise. Demand is growing between government and international development clients because of applications in the fields of urban planning, disaster risk management, public health, agriculture, and environmental monitoring.

2.7.2 Porter's Five Forces Analysis

Porter's Five Forces model offers a framework within which the competitive intensity of the IT/GIS consultancy industry in Bangladesh can be analyzed and the position of GMGI Solutions have been evaluated within the industry.

Table 2.11: Porter's Five Forces Analysis — IT/GIS Consultancy Sector, Bangladesh

Force	Assessment	Intensity
Threat of New Entrants	Relatively low barriers to entry in basic IT services because of low capital requirements, abundant online learning for GIS tools. However, building reliability with international entities and government needs experience and relationships, which new entrants lack. Specialization (e.g., QGIS + environmental modelling) raises effective barriers.	Moderate
Bargaining Power of Buyers	Government and development-sector clients wield significant bargaining power, particularly in competitive tender processes where price is a key criterion. International NGOs have standardized procurement procedures that limit supplier negotiation leverage. However, for highly specialized GIS work, client switching costs increase the firm's relative power.	Moderate–High
Bargaining Power of Suppliers	Supplier power is moderate. Though free and open source GIS tools can be used instead of paid software, skilled GIS professional are hard to find in Bangladesh which gives suppliers more bargaining power.	Moderate
Threat of Substitute Products/Services	Alternatives contain internal GIS capacity within government agencies, academic research entities and global satellite data providers (e.g., Esri, Google Earth Engine). Though the demand for field survey services could be reduced because of	Moderate

Force	Assessment	Intensity
	the availability of cloud-based GIS tools (e.g., ArcGIS Online), local expertise and context remain differentiating factors.	
Competitive Rivalry	Though the rivalry among IT and GIS companies in Bangladesh is growing, it is split up into different groups. Additionally, competitors are trying to win development with their own GIS departments and international companies. However, GMGI Solutions Limited don't have many competitors because they offer a vary specific mix of mapping technology, software, staffing and tanning.	Moderate

On the whole, the competitive environment for GMGI Solutions is average. In order to stay ahead the company should focus on improving their technical skills and strong relationships with their clients.

2.7.3 SWOT Analysis of GMGI Solutions Limited

Table 2.12: SWOT Analysis of GMGI Solutions Limited

SWOT Element	Details
Strengths	1. Offers a rare mix of GIS, field survey, and software development capabilities in one place. under one roof. 2. Has worked with reputed international clients like MORU and German Red Cross. 3. Offers good price as free GIS software (QGIS) reduces software costs. 4. Highly experienced founders with academic and professional geospatial background. 5. In the Bangladeshi GIS training community, GMGI Solutions Limited isa well known company.
Weaknesses	1. Having small team limit's ability to manage big projects. 2. Depending on Manual or Excel spreadsheet for financial management creates business risk. 3. Limited official rules for tracking and managing employee's performances. 4. Lacking's in quality certifications can stop GMGI Solutions from getting certain projects contracts. 5. Most of the income comes from a very small and specialized market which vary project to project.
Opportunities	1. Smart Bangladesh 2041 plan creates many opportunities and need for digital mapping, and government computer system which use mapping data. 2. International donors funded for climate change and disaster protection programs which represent growing list of new projects. 3. Growing local IT market creates opportunities to partner up with larger software companies

SWOT Element	Details
	seeking mapping skills. 4. There are opportunities for exporting mapping advice and training to neighboring countries in South and Southeast Asia (Myanmar, Sri Lanka, Nepal).
Threats	1. Growing access to cloud-based mapping tools (e.g., Google Earth Engine, Esri ArcGIS Online) which clients can use without any consultancy support. 2. International mapping firms like India and China are competing to get government contracts. 3. Changes in politics and regulations affects government projects. 4. Difficulty in hiring skilled workers as they are more interested in larger firms. 5. Currency fluctuation risk for internationally funded projects.

2.8 Summary and Conclusions

GMGI Solutions Limited is technically capable and entrepreneurially driven SME operating in a unique niche area in Bangladesh where the geospatial technology industry collides with environmental consulting and IT services. The company was founded in 2018 and has since been able to create strong, purposeful and institutional relationships with international development partners and create a much-recognized brand in the GIS community of Bangladesh. Management model is participative and oriented to the mission, marketing model is relationship-based and oriented to the B2B market, and operational capacity especially in mobile field data collection and geospatial analysis, is competitive in Bangladesh.

The biggest vulnerabilities of the organization due to this analysis are from financial and administrative perspective, which are: manual bookkeeping, lack of accounting information system and informal HR and performance management. This is the typical problem of growth stage SMEs in IT industry in Bangladesh, on which invest and grow can be made.

2.9 Recommendations and Implications

GMGI Solutions Limited is recommended the following:

- Adopt an Integrated Accounting Information System (AIS): Moving from the Excel spreadsheet record keeping to an inexpensive, cloud-based AIS like Zoho Books or Wave Accounting would help to improve real time financial visibility, create less manual error, maintain audit readiness,

and boost multi-year financial analysis. This is especially important when revenues from projects increase and there are more multi-stakeholder financial reporting requirements.

- Official structure for managing employees: giving review to track employee's performance twice a year, written job description and basic rule book for workers. Furthermore, these will help employees to the work ethics and regulations.
- Quality certification: GMGI Solutions Limited will be recognize^d as more trusted and professional organization, if they can get an ISO9001 quality certificate. Furthermore, this will attract government offices and international clients as this will proof that the company provides quality full work.
- Income through Software products: Making software of their own can bring regular, monthly or yearly income which will help income go up instead of going down.

Aimed at evaluating the effectiveness of the accounting system and financial control practices at GMGI Solutions Limited, the third chapter examined the effectiveness of the accounting system, existence and efficiency of financial control methods, methods for recording financial transactions, and whether those records were kept up-to-date.

Chapter 3: Project Part — Accounting System Effectiveness and Financial Control Practices at GMGI Solutions Limited

3.1 Introduction

Accountants' practice and organizational performance has been a longstanding object of continuous study and is implicated across a range of disciplines from management accounting to institutional economics. Quality of financial management and internal control systems (IC systems) has been established to be among the most important factors in the survival of small and medium enterprises (SMEs) in the developing economies that determine their growth and access to formal funding sources such as credit (Nandan, 2010; Amoako, 2013). However, practice in the SME sector, especially the technology sector, often deviates from the prescriptive standards, due to limitations in resources, founders' views about financial formalist and the lack of regulatory pressure which force larger companies to obey the accounting standards.

One of the fastest-growing sectors in the country's economy is the IT sector which is disproportionately small and medium enterprises (SMEs) in majority (BASIS, 2022). Such companies are in a "Catch 22" when they create and manage complex digital systems for their clients, but do not manage to run financial and administrative systems on formal, digitized bases. The technical sophistication versus the financial maturity of financial management is a challenge and opportunity.

This chapter presents the results of an applied research study of the effectiveness of the accounting system and the system of financial controls in GMGI Solutions Limited — a GIS and IT solutions SME at Dhaka, Bangladesh with the aim of understanding the present scenario of SME accounting system, accounting and financial control system gaps and suggesting recommendations for accounting and financial controls system strengthening.

3.2 Background and Problem Statement

3.2.1 Background

As a project-based IT and GIS consultancy, GMGI Solutions Limited deals with the financial aspects of consultancy practice that are variable associated with each project, multiple milestones for billing, multiple currency billing (international funded work) and a wide range of costs, such as technical salaries, cost of field survey services, equipment and software licensing fees. Each of these requires a system of financial management that is flexible and can also handle the monitoring of project costs, thorough and precise enough to produce accurate period-end reporting, compliant with tax rules and requirements, and provides transparency to stakeholders.

The internship identified some problems related to accounting and financial management practices, such as: reliance on excel-based bookkeeping, without systematic controls; lack of an adopted and implemented accounting and financial management principles, when using the accrual or cash basis of accounting to account for various transactions; a limited internal audit mechanism; and a restriction in the budgeting process. While individual, these observations reflect a number of wider trends documented in the field of accounting practices of Bangladeshi SMEs (Rahman & Aktar, 2016).

3.2.2 Problem Statement

Main issues tackled in this study is: How effective is the accounting system and financial control practices of GMGI Solutions Limited and how much they are following the accounting standards and internal control system applicable to the IT-sector SMEs in Bangladesh?

3.2.3 Research Objectives

Table 3.1: Research Objectives and Corresponding Research Questions

No.	Research Objective	Research Question
1	To assess the current accounting software and tools used at GMGI Solutions Limited and evaluate their	What accounting tools and software does GMGI Solutions use, and are they adequate for the company's financial reporting requirements?

No.	Research Objective	Research Question
	adequacy for the firm's operational needs.	
2	To evaluate the extent to which GMGI Solutions follows the standard accounting cycle in its financial record-keeping.	Does GMGI Solutions consistently implement all key steps of the accounting cycle, and where are the gaps?
3	To examine the internal financial controls in place at GMGI Solutions and assess their effectiveness in preventing errors and fraud.	What internal financial controls exist at GMGI Solutions, and how effective are they in practice?
4	To compare GMGI Solutions' financial practices against industry benchmarks for Bangladeshi IT-sector SMEs.	How do GMGI Solutions' financial performance indicators compare to industry benchmarks?
5	To identify specific recommendations for improving accounting system quality and financial control at GMGI Solutions and similar IT-sector SMEs in Bangladesh.	What actionable improvements to accounting systems and controls would most benefit GMGI Solutions?

3.2.4 Significance of the Study

This study adds to the body of work on SME's financial management in South Asian countries, especially the less researched IT/GIS consultancy sub-sector of Bangladesh. The evidence obtained from the study documents the dichotomy between the theory of accounting and practice in a representative IT SME, which can be helpful for policymakers, BASIS members and accounting educators in enhancing financial literacy and quality of management in Bangladeshi IT startups and SMEs as well.

3.2.5 Scope of the Study

The study will be limited to GMGI Solutions Limited, for the period of March through May 2026. Primary data sources were management and personnel in the Accounts & Admin Department. Industry benchmark data is sourced from various secondary sources such as BASIS, World Bank, academic research etc. Due to the nature of the financial performance data available, the analysis emphasizes process quality and effectiveness of control as opposed to financial performance assessment using ratios.

3.3 Literature Review

3.3.1 Accounting Practices in SMEs: Theoretical Frameworks

Theoretical frameworks in accounting practices in SMEs are presented in this section. There is abundant research literature on the study of accounting in small and medium enterprises that questions the premise in mainstream accounting research of textbook prescriptions being followed by all firm types. In a seminal article, Nandan (2010) highlights the ‘accounting gap’ in the context of SMEs that is represented by the gap in accounting systems, which are in the main comprehensive as per the financial reporting framework, and the accounting systems that are informal and condensed as observed in the small firms. Rather than just a problem, Nandan posits that this lack is a rational reflection of scarce resources and the information needs of small-firm stakeholders, which includes predominantly owner-managers and bank lender, as opposed to the public capital markets.

This analysis is extended in the case study of developing-economy SMEs where Amoako (2013) investigates the accounting practices of SMEs in Ghana and found that although there is conceptual understanding of double-entry bookkeeping, such practices in developing-economy SMEs has not been consistent, with some SMEs failing to make closing entries, failing to compute depreciation and failing to make adjusting entries. The study identified lack of skilled Accountants, lack of Accounting Software and lack of awareness about the usefulness of full cycle Accounting by the owner-manager as the causes of this. This finding relates well to the GMGI Solutions context.

As a landmark study of financial management in UK SME's Collis & Jarvis (2002) concluded that the main function of small firm accounting is to comply with tax requirements, rather than to

support managerial decision-making. Given this background, it is likely that GMGI Solutions' accounting approach is compliance focused and focuses more on tax documentation and government filing, as opposed to having a relation with it to financial analysis or the forecast.

3.3.2 Internal Controls in SMEs

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework (first published in 1992 and revised in 2013), internal control is a process because it is a series of steps and a logical sequence of events (COSO, 2013). Though COSO is meant specifically for larger companies, the five elements of the COSO framework (control environment, monitoring, information and communication, risk assessment, and control activities) serve as a conceptually based framework to assess SME internal controls at scale.

In many SMEs, management accounting systems are often inadequately developed in relation to the breadth and extent of business operations, especially in the tech-centric sector that relies mainly on intangible assets (such as software, IP, human capital) which are hard to value and manage (Abdel-Kader and Luther 2008). This indicates that IT-sector SMEs have unique internal control issues beyond the traditional asset safeguarding issues.

Berry, Sweeting and Goto (2006) carried out a survey on financial management practices of small enterprises in the UK where it was found that although the majority of small enterprises keep basic books, management accounting information is used little for decision making. Companies reporting the use of management accounting techniques (budgeting, variance analysis, cash flow forecasting etc.) had better financial performance. The correlation between accounting sophistication and business performance is good justification for GMGI Solutions to invest in their system of financial management.

3.3.3 Accounting Information Systems (AIS) in SMEs

Cloud-based software such as software like QuickBooks Online, Xero, Zoho Books, and others, have been playing a huge role in democratizing accounting information systems (AIS) — people, processes, and technology that gather, process, and communicate financial data — in the last decade. What is important with respect to SME financial performance benefits is the alignment of AIS with the organizational needs not the sophistication of the system per se, as found by Ismail and King (2007). This indicates that a rather basic and properly set up cloud AIS should be an invaluable addition to the resources of a company such as GMGI Solutions.

Dečman (2012) deliberately researched the relationship between integrated AIS implementation and quality of financial reporting in implementation of the AIS in Croatian SMEs, and concluded that the financial statements quality was significantly better among SMEs which used integrated AIS rather than the ones which depended on Excel. Finally, the study explicitly discusses the potential for formula mistakes, version control problems and the absence of audit trails in spreadsheet accounting systems to GMGI Solutions' current situation.

3.3.4 Project-Based Accounting and Revenue Recognition

Revenue recognition is a challenging accounting matter for project-based IT and consulting companies, in particular. IFRS 15 (Revenue from Contracts with Customers which becomes effective in 2018) stipulates that revenue should be recognized in a way that reflects the transfer of goods and/or services to a customer in consideration of what has been received, or is expected to be received, in return. In the case of fixed-price contracts with multiple performance obligations (which are the norm in GIS consultancy), this means making judgement calls when calculating percentage-of-completion, contract modifications and variable consideration estimates.

However, Rahman (2020) suggests that a very few of the Bangladeshi SMEs have awareness of the requirements of IFRS 15 and they are still practicing simple cash basis and milestone basis for revenue recognition without doing any systematic analysis required by IFRS. In other words, if a company takes the time to account for its revenues correctly, it could not only keep employees and customers happy, but could carve out a competitive edge too.

3.3.5 Bangladesh-Specific Context

The release of Bangladesh Financial Reporting Standards (BFRS) (adopted from International Financial Reporting Standards) and Bangladesh Accounting Standards (BAS) (adopted from International Accounting Standards) by ICAB has boosted accountability and transparency in accounting and financial reporting by companies and organizations operating in Bangladesh. But there is limited external pressure for SMEs to comply with full BFRS requirements, with most of the pressure coming from public company and large private businesses (World Bank, 2003).

A recent World Bank report on Financial Reporting Standards in Bangladesh (World Bank, 2003) highlighted that accounting quality of SMEs in Bangladesh is quite low due to several reasons such as lack of accounting literacy amongst the owner-managers of small firms, lack of accounting professional services at an affordable price, lack of a simplified BFRS for SMEs for local circumstances and so on. Financial digitization programs, a key component of the Government's digitization, also assumed financial digitization of the SMEs which pave the way for the digitization of accounting systems inside SMEs (Ministry of Finance, Bangladesh 2023).

Table 3.2: Summary of Key Literature Reviewed

Author(s) & Year	Key Finding / Relevance
Nandan (2010)	Identified the 'accounting gap' in SMEs; informal practices are rational adaptations, not mere deficiencies.
Amoako (2013)	Developing-economy SMEs inconsistently implement the accounting cycle; double-entry is known but incompletely applied.
Collis & Jarvis (2002)	SME accounting is primarily compliance-driven rather than decision-support oriented.
COSO (2013)	Five-component internal control framework applicable across organization sizes.
Berry et al. (2006)	SMEs using management accounting techniques report superior financial performance.
Ismail & King (2007)	AIS alignment with organizational needs, not system sophistication, drives SME performance benefits.
Dečman (2012)	Integrated AIS reduces financial reporting errors vs. spreadsheet-based accounting.
World Bank (2003)	Significant gaps in Bangladeshi SME accounting quality; limited compliance with BFRS.

Author(s) & Year	Key Finding / Relevance
COSO (2013)	Internal control framework: control environment, risk assessment, control activities, information/communication, monitoring.
Abdel-Kader & Luther (2008)	IT-sector SMEs face distinctive internal control challenges around intangible asset management.

3.4 Methodology

3.4.1 Research Design

The research approach used is a mixed method approach which assumes that the qualitative method using observations and interviews that are semi-structured and quantitative method using structured questionnaires in parallel can give results that are mutually complementary. Research objectives are in-depth understanding of context and therefore the case study approach (based on a single organization) is appropriate (Yin, 2018). The case study is interpreted with the interpretation of an epistemological paradigm, because it deals with the researcher's emplaced position as an intern, which helps to avoid response bias, and at the same time requires reflexive awareness of potential subjectivity.

Figure 3.1: Research Design Framework

Research Element	Specification
Research Design	Mixed-methods, single-case study
Epistemological Position	Interpretive / constructivist
Primary Data Methods	Semi-structured interviews; structured questionnaire; direct observation
Secondary Data Sources	Company documents; BASIS reports; World Bank; academic journals
Analysis Methods	Content analysis (qualitative); descriptive statistics (quantitative)
Unit of Analysis	GMGI Solutions Limited, Accounts and Admin Department
Study Period	March–May 2026

3.4.2 Data Collection Methods

There were three ways of collecting primary data. Firstly, the field supervisor (MD. Nurullah) was interviewed using semi-structured interview. Interviews have been conducted on the following aspects of the warehouses: accounting software, record-keeping practices, internal control practices, and budgeting practices. Secondly, a structured questionnaire that contained items with likert scale was given to seven respondents consisting of the Director, accounts staff, a project manager regarding perception of accounting system adequacy and the effectiveness of internal control. Thirdly, these things were observed directly during the internship period in the form of documentary evidence (review of voucher formats, ledger templates, bank reconciliation sheets etc.).

Table 3.3: Summary of Survey Respondent Profile

Respondent	Role	Years at Company
R1	Director (Field Supervisor)	6+ years
R2	Accounts Officer	3 years
R3	Admin Executive	2 years
R4	Project Manager	4 years
R5	GIS Analyst	3 years
R6	Software Developer	2 years
R7	Intern (Self)	3 months

3.4.3 Data Analysis Method

Qualitative interview data was analyzed based on the thematic content analysis of Braun and Clarke (2006) which was divided into six phases according to getting ready with the data and familiarization, coding, identifying and clustering themes from the data, reviewing the themes, defining and refining them and reporting of the results. Descriptive statistics (frequencies, means) were used to analyses taken data of the quantitative question. Data from both streams were then triangulated with the secondary data in order to arrive at an integrated account.

3.4.4 Limitations of Methodology

The study has several methodological limitations. Small sample size ($n=7$) reduces the generalizability of the results. Respondent's answers to the questionnaire might be affected by social desirability bias as researcher was employed in the organization and an attempt was made to overcome it by using different anonymous formats in the questionnaires to answer sensitive questions. Financial documents were unavailable for study due to confidentiality issues, and indirect indicators were used to assess the financial control. It is recommended that future studies use larger cases and include other IT SMEs to increase findings' overall generalizability.

3.5 Findings and Analysis

3.5.1 Accounting Software and Tools

Accounting Software & Tools 3.5.1. The first research question was related to the accounting tools and software currently in use at GMGI Solutions. Information gathered from interviews and firsthand observation shows that the company's financial records are kept mostly in Microsoft Excel, at best with a help from a simple Word as a tool for creating invoices and keeping basic correspondence, where email is used as a way to share and approve documents.

Table 3.4: Accounting Software and Tools Used at GMGI Solutions Limited

Tool	Purpose	Level of Use
Microsoft Excel	Ledger maintenance, monthly reports, bank reconciliation, expense tracking	Primary — daily
Microsoft Word	Invoice preparation, formal financial letters	Regular
Email (Gmail/Outlook)	Invoice distribution, approval workflows	Daily
Google Drive	Document storage and sharing	Regular
No dedicated AIS/ERP	—	—

Five out of seven respondents answer the question regarding the adequacy of the current accounting tools; five respondents rate the current accounting tool as 'Moderate Adequate' and

'Inadequate' in respect with operational complexity of the company. While the Director recognized the current system of Excel is working for the company, the Director also noted that a more organized solution would be necessary in case of scaling.

Figure 3.2: Respondents' Assessment of Accounting Software Adequacy (n=7)

Response	Count	Percentage
Very Adequate	0	0%
Adequate	2	28.6%
Moderately Adequate	3	42.9%
Inadequate	2	28.6%
Very Inadequate	0	0%

This finding is consistent with Dečman (2012) who noted that a spreadsheet-based approach to accounting poses a structural vulnerability: no audit trails, risk in version control, no automated checks for reconciliation of data, among others. The 71.5% of respondents who perceived the system as less than fully adequate gives a strong internal 'stamp of approval' for system improvement.

3.5.2 Accounting Cycle Compliance

The second research question examined the extent to which GMGI Solutions implements the standard accounting cycle. A checklist-based assessment was applied, drawing on documentary evidence and interview accounts.

Table 3.5: Assessment of Accounting Cycle Compliance at GMGI Solutions Limited

Accounting Cycle Step	Implemented at GMGI?	Quality of Implementation	Notes
1. Identify and Analyze Transactions	Yes	Moderate	Transactions are identified but not always formally analyzed for correct classification.
2. Record Transactions (Journal Entries)	Partial	Low–Moderate	Basic journal entries maintained in Excel; not

Accounting Cycle Step	Implemented at GMGI?	Quality of Implementation	Notes
			all transaction types are consistently journalized.
3. Post to Ledger Accounts	Partial	Low–Moderate	Ledger maintained but not systematically structured by chart of accounts.
4. Prepare Unadjusted Trial Balance	Rarely	Low	Trial balance not regularly prepared; discrepancies identified only at year-end.
5. Make Adjusting Entries	Rarely	Very Low	Accruals, deferrals, and depreciation adjustments not consistently entered.
6. Prepare Adjusted Trial Balance	No	N/A	Not practiced.
7. Prepare Financial Statements	Partial	Moderate	Monthly expense summaries prepared; formal Income Statement and Balance Sheet not prepared monthly.
8. Journalize and Post Closing Entries	No	N/A	Formal period-closing not practiced.
9. Prepare Post-Closing Trial Balance	No	N/A	Not practiced.

The assessment shows that GMGI Solutions carries out only moderately the first three steps of the accounting cycle while the more complex steps such as adjusting entries, actual preparation of financial statements, and preparing statements of change in financial position during the closing of the books are not carried out or only superficial. This aligns well with what was discovered at SMEs in the developing economies where the initial or transactional aspects of the accounting cycle were undertaken, but the analytical and reporting aspects were ignored (Amoako, 2013).

The implication of this lack of accounting cycle completion is that GMGI Solutions will not have the financial data foundation in place for useful period-over-period financial analysis, trend or scenario planning. This is a huge limitation in the quality of management decision making –

especially for project businesses because it's vital to understand cost behaviour by project type for project pricing and project profitability management.

3.5.3 Internal Financial Control Effectiveness

Effectiveness of Internal Financial Control – 3.5.3 The third research question determined the internal financial controls at GMGI Solutions in relation to the five components of the COSO (2013) internal control framework.

Figure 3.3: Level of Internal Control Implementation at GMGI Solutions (Mean Score, Scale 1–5, n=7)

COSO Component	Mean Score (1–5)	Assessment
Control Environment	3.4	Moderate — Management tone is ethical and transparent; formal policies largely absent.
Risk Assessment	2.1	Weak — No formal financial risk identification or assessment process.
Control Activities	2.6	Weak–Moderate — Basic segregation of duties (Director approval for major payments); limited additional controls.
Information and Communication	3.0	Moderate — Internal communication is effective; external reporting to stakeholders is limited.
Monitoring Activities	2.0	Weak — No internal audit; limited management review of financial data against targets.

Table 3.6: Internal Control Practices — Observed Status

Control Practice	Status at GMGI Solutions	Risk Level
Dual authorization for payments	Partial — Director approval required above threshold	Medium
Segregation of duties (recording vs. custody)	Partial — Same staff involved in recording and bank management	Medium–High
Bank reconciliation	Monthly — performed by intern/accounts staff	Low–Medium
Petty cash management	Basic — cash box with manual register	Medium

Control Practice	Status at GMGI Solutions	Risk Level
Invoice approval before payment	Yes — Director approval	Low
Fixed asset register	Informal — tracked in Excel	Medium
Independent review of financial reports	Rare — limited to Director review	Medium–High
Fraud prevention policies	No formal written policy	High

The major limitations of internal control found are the lack of segregation of duties in the accounts function. One staff member records the transactions and is responsible for the cash book and access to bank accounts, which – although often not deliberate – can leave the door open for fraud and/or mistakes to happen. Full separation of duties is impossible in a company of such dimensions, but there would be compensating controls, such as random spot checks by the Director, all bank transfers required to be signed-off by two people, financial reviews conducted monthly, etc., that would dramatically decrease the risk.

Notable is the weak score in the category of 'Monitoring Activities' (2.0). Berry et al. (2006) report that SMEs that actively monitor financial information (including its ability to compare budget to actual data on a regular basis) are distinctly better than their counterparts that don't. The current management of GMGI Solutions does not have a formal budgeting system or variance analysis process, and there is a constraint on the ability to respond to variance in budget in a proactive manner.

3.5.4 Financial Performance Against Industry Benchmarks

In the absence of audited financial statements, a direct ratio analysis of GMGI Solutions' financial performance is not feasible. Hence the following analysis compares the financial position of the company by using the qualitative indicators and available secondary estimates, to the industry average of the Bangladesh IT-sector SMEs.

Table 3.7: Key Financial Ratios — Industry Benchmarks vs. GMGI Solutions Estimates

Metric	Industry Benchmark (IT SMEs, BD)	GMGI Solutions (Estimated/Observed)	Gap Assessment
Revenue Recognition Method	Accrual / IFRS 15 (recommended)	Mixed cash/accrual	Moderate gap — risks revenue misstatement
Financial Statement Frequency	Monthly (best practice)	Monthly expense summaries; no formal statements	Significant gap
Internal Audit	Annual (minimum)	None	Critical gap
Budget Preparation	Annual with quarterly review	No formal budget	Significant gap
Accounts Receivable Days	30–60 days	----	—
Petty Cash Controls	System with monthly reconciliation	Manual cash register; monthly check	Moderate gap

The most significant financial management deficiency found was that there was no internal audit system in place. An annual external CA review would give a considerable degree of comfort to management and external parties (lenders / clients from development-sector). The fact that GMGI Solutions do not have audited accounts and have never had an independent financial review of their books is going to be a hindrance as the size of their contracts continues to increase with government and international contracts.

3.5.5 Primary Challenges in Financial Reporting

Some common issues with financial reporting were identified among the interviewees. They indicated that they ranked the most important challenge in 5 measurable themes when asked:

Figure 3.4: Primary Challenges in Financial Reporting at GMGI Solutions (Ranked by Frequency of Mention, n=7)

Challenge	Frequency of Mention (out of 7)
Lack of dedicated accounting software	6
Time constraints / competing responsibilities	5
Limited accounting knowledge among non-finance staff	4
Difficulty tracking project-specific costs	4
Irregular cash flow from project-based revenue	3

This study aimed to analyze accounting system effectiveness and financial control practices from GMGI Solutions Limited — an IT and GIS consultancy SME of Dhaka and also to examine the effectiveness of a good financial control system. The results of the mixed-methods primary research and secondary data analysis consistently would reveal that GMGI Solutions currently operate a working, albeit limited, accounting system that has most of the required controls and is adequate for company transactions and taxes; yet, they have failed to add the comprehensive control accounting system which is necessary given their level of complexity and growth trajectory.

3.6 Summary and Conclusions

The objective of this study was to explore the effectiveness of accounting system and financial control practices on GMGI Solutions Limited, an IT & GIS consultancy SME of Dhaka, Bangladesh. Based on mixed methods primary research and secondary data analysis, the picture that emerges is consistently that GMGI Solution's accounting system, while functional, is limited, and does not fit with the detailed and project-centric control accounting environment required by the growing complexity and trajectory of projects.

In particular, the study reveals that: (a) the company does not have formal records of its cash transactions except through Microsoft Excel, which is inadequate or moderately inadequate according to the majority of the respondents; (b) only part of the standard accounting cycle (identification of transactions, basic journal and ledger posting process) was in place, while the adjusting entries, formal preparation of financial statements and period closing process are either missing or weakly present; (c) although some internal financial control guides are present (such as director approval for all major payments and monthly bank reconciliation), there is certainly a need to reinforce the structural rigor of the COSO framework, especially with regard to risk assessment and monitoring; and (d) the lack of any internal or external audit function is a major and growing risk to the organization.

These findings agree with the existing literature pertaining to accounting in SMEs in developing economies (Nandan, 2010; Amoako, 2013; World Bank, 2003) and attest to the fact that issues around financial management experienced by GMGI Solutions are structural attributes of the SME

context and are not idiosyncratic problems. The study found there to be significant disparity between the level of technical development in the firm's geospatial and software development and the relative lack of development in the firm's financial management infrastructure, which is also the central problem diagnosed in this study and the primary opportunity for organizational improvement.

3.7 Recommendations and Implications

3.7.1 Recommendations for GMGI Solutions Limited

Based on the above issues, the following recommendations are proposed: The following prioritized recommendations for GMGI Solutions are based on the findings:

- To implement a Cloud Accounting Information System (High Priority): The top priority recommendation is switching to a cloud-based AIS, which can be Wave Accounting (free), ZohoBooks or QuickBooks Online. These systems offer automated double entry recording, chart of accounts management, bank feed integration, invoice management, generation of financial statements and audit trail at low cost. Historical data can be migrated to the firm's new chart of accounts using the firm's current excel templates. In theory it may be possible to implement this in 30-60 days with adequate assistance.
- Complete a Full Monthly Accounting Cycle (Priority: High): Create a written month end closing checklist – such as making any adjustments (accruals, deferrals and depreciation etc); preparing a trial balance, and an income statement, balance sheet and basic cash flow statement. A financial review meeting with the Director and accounts staff could be introduced and run monthly reviewing actual performance against previous month to embed the use of financial information to support management decisions.
- Strengthen Internal Controls, and use Compensating Mechanisms (Priority: High): Although total separation of duties is not practical for any size team, below mentioned compensating controls are ready to be implemented: (i) All bank transfers above BDT 10,000 to be signed twice; (ii) Director to undertake surprise cash verifications of petty cash fund once every month; (iii) Director to review complete general ledger once every

quarter; (iv) Formal fixed asset register and verification to be undertaken by the Director once a year.

- Implement Annual External Accounting Review (Medium Priority): As an added benefit to securing an assurance of independence, a financial review by an external chartered accountant (not an audit but a compilation or review engagement) could provide an additional comfort as a mark of compliance along with an increased level of credibility with clients and lenders at a relatively low cost, once per year.
- Develop PCAF (Priority: Medium): Within the project-oriented revenue model, implementing a simple job-order costing system (i.e., direct labor hours based on timesheets – half of this is already in place, direct material costs and an overheads allocation rate per project) would allow to analyze the profitability on a project level and provide far more accurate future project price information.
- Priority: Medium Conduct Accounting Literacy Training for Staff. Conducting a half day workshop on basic accounting concepts, internal controls, and the company's new AIS for all personnel recording financial transactions would help minimize the handling of errors and provide a proper control environment, first line of defense.

3.7.2 Implications for the Bangladeshi IT/GIS Sector

The results of this study are not just relevant to GMGI Solutions but to the whole of the SME IT sector in Bangladesh:

Policy Implications: The MFI establishment of BASIS and the Ministry of ICT should consider setting up financial management capacity building e.g. AIS adoption workshops and accounting literacy programs in their SME support programs. BASIS member companies could benefit from the possibility of accessing competitor sponsored affordable Cloud AIS tools with much greater quality of financial management its sectors.

Academic Implications: This research reiterates the significance of Technology Company Internship for BBA students especially BBA Accounting students. Based on the identified practical problems mentioned here, it can be concluded that there is a need to make the accounting curricula more SME-centric, with a focus to include accounting issues such as hybrid cash/accrual

accounting, project cost accounting, and digital book keeping tools apart from the conventional interest of giving an emphasis on financial reporting for large firms.

Industry Implications: Investing in financial management infrastructure has become more of a necessity than a privilege for IT-sector SMEs who are aiming to tender for government tenders or international development projects. Today, tenders often include a requirement for financial statements or an audit report or a bank solvency letter to qualify for a tender, and this is in the interest of business development not just a compliance issue.

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Appendices

Appendix A: Semi-Structured Interview Guide

The following questions were used as a guide for semi-structured interviews with GMGI Solutions Limited management and staff during March–May 2026. Questions were taken from my conversation with them during my internship.

1. How does GIGMI Solutions limited keep and track their financial record?
2. What kinds of accounting tools are used for financial management? Are these tools enough for company's current need?
3. What transaction method are used? Do you use accrual basis or cash basis or mix of both?
4. How to keep track of cost of any project? Do you use project level cost accounting system?
5. What internal controls techniques you follow to avoid unauthorized transaction and errors?
6. How financial reports are prepared? Who reviews them?
7. Have the company faced any financial management challenges and how they handle the situation?
8. Are you considering to improve the financial management system and how?

Appendix B: Structured Questionnaire

The following questionnaire (1= Strongly disagree, 5= Strongly Agree) were given to seven employees at GMGI Solutions Limited.

Section A: Accounting Software Adequacy

9. The accounting tools using for financial reporting are enough.
10. The financial reports are easily accessible when needed.
11. The current system for recording data reduces the risk of errors.
12. Using a specific accounting software would improve financial management system.

Section B: Internal Control Effectiveness

13. There a policy on who can approve payments from clients.
14. In order to prevent errors and fraud, all the financial roles and duties are distributed among the employees.
15. A senior staff member prepares and review the bank reconciliation statement.
16. GMGI Solutions Limited have records of their fixed assets.
17. They have systems on identifying financial risks and respond to them.

Section C: Financial Reporting Quality

18. The company prepares complete financial statement regularly.
19. Financial data is used by management to make pricing decisions and resource allocation.
20. For expenditure monitoring company creates a formal budget.

Appendix D: Company Certifications and Accreditations

The certificates and accreditations that GMGI Solutions Limited holds are given bellow:

1. ISO Certificate: IT or GIS certificate which include ISO 9001:2015 system of Quality Management.

2. Professional Affiliations:

- GFDRR (Global Facility for Disaster Reduction and Recovery) Partner
- Member of Bangladesh Association of Software and Information Services (BASIS)
- Collaboration with international organizations (German Red Cross, MORU)

3. Software Licenses and Partnerships:

- QGIS Certified Professional Use
- ArcGIS Enterprise License
- ODK (Open Data Kit) Implementation Partner
- KoBoToolbox Authorized Implementation Partner

4. Project-Specific Certifications:

- Certified for Government Survey Projects
- Qualified for NGO Implementations
- Experience with Commonwealth-funded projects