Report On

Developing an Integrated MIS Solution: Case of Accounting Record-Keeping at R.N Enterprise

By

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An internship report submitted to the Brac Business School, Brac University in partial fulfillment of the requirements for the degree of Bachelors of Business Administration (BBA)

Brac Business School

Brac University

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Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. 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.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Co-Supervisor's Full Name & Signature:

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Letter of Transmittal

Raad Ryasaat Khan
Lecturer,

Brac Business School

BRAC University

66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report on "***Developing an Integrated MIS for Accounting Record-Keeping at R.N Enterprise***"

Dear Sir,

This is my pleasure to present my internship report, "Developing an Integrated MIS for Accounting Record-Keeping at R.N Enterprise".

During my internship period, I have endeavoured to prepare this report with relevant information and practical insights required and my time with the company has helped me to understand how a construction firm like R.N Enterprise operates, manages its operations and data along with successful completion of big projects.

I have attempted my best to provide all relevant findings, recommendations and complete the report in a comprehensive manner. I hope that this report meets your desired requirements and serves the purpose of the internship report.

Sincerely yours,

_____

Abedur Rahman Chishty

Student ID: 21304101

BRAC Business School, BRAC University

Date: 01/03/2026

Non-Disclosure Agreement

This page is for a Non-Disclosure Agreement between R.N Enterprise and Abedur Rahman Chishty.

This agreement is made and entered into by and between R.N Enterprise and Abedur Rahman Chishty, the undersigned student at Brac University…….

_____

Abedur Rahman Chishty

Student ID: 21304101

Acknowledgement

To start with, I want to praise Almighty Allah who has given me the energy, patience, and opportunity to complete my internship period and write this report successfully. I would like to express my heartiest gratitude to my supervisor for this internship report, Mr. Raad Ryasaat Khan (Lecturer, BRAC Business School, BRAC University), who has provided me with adequate guidance and constructive feedback, which helped me greatly in the development of this internship report. I would also like to thank my co-supervisor, Mr. Shihab Kabir Shuvo (Senior Lecturer, BRAC Business School, BRAC University), for his valuable recommendations and guidance. Moreover, I would like to thank Mr. Shariful Islam Shujon, Accounts Manager, R.N Enterprise and the whole team at R.N Enterprise. as they supervised, guided and supported me throughout my work period. Their mentorship enabled me to gain practical knowledge in accounts record keeping, project management and problem resolutions in large scale project works, which played a crucial role to my future work and learning experience.

Lastly, I would like to express gratitude to my family, faculty members, friends and peers who encouraged and supported me throughout the whole process of completing my internship program. I am grateful to each one of the mentioned people to help me successfully complete my internship program and the report as well.

Executive Summary

The internship report investigates the information management and data-recording practices at R.N Enterprise, a first-class construction company based in Bangladesh, with a focus on finding out the operational inefficiencies that arise from their existing manual record-keeping systems. The report is based on the internship experience with R.N Enterprise, where I observed their reliance on manual logs, handwritten invoices, vouchers and Excel data entry across project sites and the corporate office. These methods were found to be time inefficient, more prone to human errors along with data inconsistency and fraud. To highlight these issues, the study suggests a solution of Management Information System (MIS)/Enterprise Resource Planning (ERP) framework specially designed for construction companies like R.N Enterprise to integrate site operations, procurement and management practices and accounting recordkeeping into a centralized system. The study used surveys from real employees, process observations and relevant cases to demonstrate how an integrated system could enhance the operational efficiencies and process development at R.N Enterprise.

Keywords: Internship report; Management Information System; ERP; Construction industry; Accounting information system; Record-keeping practices.

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Glossary

Thesis	An extended research paper that is part of the final exam process for a graduate degree. The document may also be classified as a project or collection of extended essays.

Chapter 1: Overview of Internship

1.1 Student Information:

- Name: Abedur Rahman Chishty
- ID: 21304101
- Program: Bachelors of Business Administration
- Major/Specialization: Management Information System (MIS)

1.2 Internship Information:

- Period: 2025-current
- Company Name: R.N Enterprise
- Department/Division: Accounts
- Address: Planners Tower, Banglamotor, Dhaka
- Supervisor Name: Md. Shariful Islam Sujan
- Supervisor Position: Accounts Manager

Job Responsibilities:

During the internship period, I performed duties and responsibilities under the Accounts Department of R.N Enterprise. The major responsibilities that I had to perform are:

- Recording, verifying and entering daily site expenses submitted by site managers on excel.
- Processing and justifying bills, vouchers, logs and cash receipts from suppliers and project sites.
- Tracking labor attendance, working hours, wage payments and expenses.

● Monitoring heavy machinery and equipment daily usages, including operational hours and fuel purchases and its consumption.
● Matching supplier invoices with site-level purchase records.
● Entering verified accounting data into Excel-based accounting dashboards.
● Preparing regular reports for senior accounts executives and management.
● Depositing payments to suppliers and clients.

1.3 Internship Outcomes:

1.3.1 Student's contribution to the company:

During my internship at R.N Enterprise, I actively played my role in the Accounts Department by maintaining daily accounting and record-keeping activities. I verified handwritten bills, vouchers, logs and expense reports received from project sites and accurately entered validated data into Excel-based dashboards and kept manual data storage. I kept track of labor attendance, wage calculations, machinery operating hours, and fuel consumption records. Additionally, I worked on matching supplier invoices with site-level purchase records and prepared periodic reports for senior management helping the company to avoid potential fraudulent and dishonest activities and maintain accurate record keeping. Through these works, I tried to support consistent and error-free reporting, improve accounting data storage and handling, and assisted management in monitoring project-wise expenses more effectively.

1.3.2 Benefits to the student:

The internship provided me valuable learning opportunities that helped me increase both my technical and managerial skills alongside my work responsibilities. Key learning outcomes may include:

❖ Practical understanding and experience of construction project accounting.

❖ Real time experience with excel-based data management and report generation.

❖ Introducing myself to real-world financial verifications and reconciliation processes.

❖ Understanding the importance of data accuracy and documentation of every expense and processes.

❖ Learning about the limitations of manual accounting systems in large organizations.

1.3.3 Problems/Difficulties faced:

Several difficulties and challenges were encountered during my internship period, such as:

❖ Managing large volumes and different types of handwritten documents, vouchers and logs.

❖ Time-consuming and error prone manual data entry.

❖ Difficulty in tracking immediate and real-time data from multiple accounts and site.

❖ Risk of inconsistencies and more room for errors due to unintegrated data sources.

These are some of the challenges that I faced during my time in the company which later formed the foundation for the project part of this report.

1.3.4 Recommendations on future internships:

Based on my internship experience with R.N Enterprise, several recommendations can be made to increase the effectiveness of future internship programs. The company may consider providing a well structured internship orientation at the beginning of the internship period to make interns familiar with their organizational policies, workflows, and expectations. Assigning clear work instructions and regular supervision can help interns to better understand their responsibilities and contribute more effectively to the company.

Moreover, interns across different functional departments, such as accounts, procurement and on-site operations, should be provided with broader practical exposure. Periodic feedback sessions between interns and supervisors could further improve learning outcomes and professionalism. Implementing these measures would ensure a more organized, engaging, and effective internship experience for future interns at R.N Enterprise which would be beneficial both for the interns and the company as well.

Chapter 2: Organization Part

2.1.1 Introduction:

R.N Enterprise is a first-class construction company running its operation in Bangladesh. The organization is mainly involved in doing large-scale infrastructural and civil construction projects and does construction for different governmental and public sector development works. Since its start, R.N Enterprise has developed a reputation for building and doing complex construction projects in compliance with clients requirements, quality standards, and contractual deadlines.

The main business activities of R.N Enterprise include the construction of roads, dams, academic and institutional buildings, large-scale land development works, lake constructions and other civil works etc. The company is currently involved in several projects, which include the construction of a ten-storied academic building for Khulna University of Engineering and Technology (KUET) and the development project of the new campus of Jagannath University in Keraniganj, Dhaka, where the organization is responsible for constructing the surrounding round lake which will border the whole campus. In addition, the organization has successfully completed and continues to execute road construction projects in areas such as Chittagong Hill Tracts, Bandarban, along with other infrastructure-related works.

2.1.2 Objective:

The primary objective of this report is to provide a complete overview of my internship company R.N Enterprise by analyzing its organizational structures, management executions and practices, operational activities and recording systems. The report aims to link my theoretical knowledge gained from academics with practical experiences which I acquired during the internship period.

Moreover, this report also looks into the existing accounting and operational record-keeping methods and practices of R.N Enterprise and aims to figure out areas where the information systems flow and data management can be improved.

By assessing the company's current practices, the report seeks to highlight and give solutions to the operational challenges that affect efficiency, accuracy, and transparency of data and transactions of R.N Enterprise.

Furthermore, this report also aims to apply Management Information Systems (MIS) concepts to a real organizational situation by proposing a structured and integrated systems framework in the third part of the report. Through this analysis, the report plans to show how MIS can support better decision-making, increase data security and reliability and improve overall organizational performance.

2.1.3 Scope of Study:

This internship report is focused on the analysis of organizational, operational and accounting methods and practices of R.N Enterprise. The report also focuses on understanding how different departments of the company function and cooperate with each other, particularly related to on-site operations and labor records, sales & procurement and financial record-keeping.

The report inspects the transfer of operational and accounting information from construction sites to the corporate office, including site expenses, vendor transactions, labor records, machinery usages, and fuel consumption data.

Furthermore, the scope of the study includes the application of Management Information Systems (MIS) concepts in the project part of the study to propose improvements and solutions in data integration and information flow. However, the report does not feature the totality of the technical implementation of an enterprise system, and the findings are based on observations and data collected during the internship period only.

2.1.4 Methodology:

This internship report follows a qualitative method and analytical approach to investigate the organizational and operational practices of R.N Enterprise. The methodology is selected as such that a systematic data collection process and secured record keeping can be ensured. Both primary and secondary data sources were used while preparing this internship report. Primary data collected through day to day organizational practices and activities observations, involvement in accounting and record-keeping processes and regular discussions and reporting with accounts manager, site managers and other relevant staff. All these helped in getting direct insights into existing workflows, integration processes and everyday operational challenges within the company.

Secondary data were collected from internal organizational documents such as expense sheets, vouchers, bill copies, invoices, logs, excel reports etc, along with related academic sources, online resources relevant to company record keeping management and Management Information Systems (MIS). The data collected were analyzed qualitatively to recognize current practices, finding out inefficiencies and support the analysis presented in later parts of the report.

This methodological approach ensures that the findings of the report are set in real organizational practices while maintaining academic and contextual relevance.

2.1.5 Significance of the Study

The significance of this internship report lies in its practical and academic offerings to understanding organizational and accounting data recording practices within a large construction firm which in our case is R.N Enterprise. By analyzing the operational processes and record-keeping practices of the company, the research provides valuable findings into how construction companies like R.N Enterprise manage complicated and large amounts of data, information and logs.

From an organizational perspective, the study may help R.N Enterprise in recognizing current operational backlogs and opportunities for improvement in their information flow and accounting/transactional data management. Although the report does not implement a full-scale model, the analysis and observations presented here can work as a reference for future improvements in organizational efficiency, transparency, and decision-making.

From an academic point of view, the report helps to link the gap between theoretical knowledge gained through academic studies and real-world organizational practices. It shows the application of Management Information Systems (MIS) concepts in analyzing business processes and to identify areas for improvement and efficiency, thereby enhancing the practical understanding in a real time industry.

2.1.6 Limitations:

Even with all the efforts to ensure accuracy and entirety, this internship report is bound to some limitations. One of the major limitations is the restriction of access to sensitive company information and financial data due to confidentiality issues. Thus, some analyses have been done based on information that could be salvaged or collected and observations rather than actual datasets.

Although the internship period provided adequate exposure to company practices, it was not enough to observe long-term operational variations in construction activities.Moreover, the findings of the report are based heavily on qualitative observations and discussions with organization members, which may involve subjective explanations.

Since, the scope of the report is limited to a single entity and selected projects, the findings may not apply fully to all construction firms in Bangladesh. These limitations were taken into consideration while doing the research, and efforts were made to minimize their impact on the overall study.

2.2 Overview of the Company:

2.2.1 Company Background

R.N Enterprise is a first–class government licensed construction firm in Bangladesh. The company has been involved in executing medium and large-scale infrastructural projects across different regions of Bangladesh for over 15 years. Over the course of time, R.N Enterprise has gradually expanded its operational capabilities and workforce capacity, along with its technical expertise which enabled the company to work on different and a number of complex projects like construction of government institutional buildings, land and water development projects and road constructions. Through its exceptional quality in project developments, deliveries and compliance to contractual necessities, the company has positioned itself as one of the reliable partners in the construction sector of the country.

2.2.2 Core Services

The core services of R.N Enterprise include civil and infrastructural construction and development works. These include the building of academic and institutional buildings, large-scale land development works, road constructions and site development works, making of dams and bridges, etc. The company is also involved in excavation works, water side bank constructions, and water development projects as part of campus and land development projects. Furthermore, R.N Enterprise manages project-related procurement, on and off site logistics, and coordination with multiple stakeholders to ensure smooth execution of construction works.

2.2.3 Clients

R.N Enterprise mainly does construction works for government bodies, public institutions, and educational organizations in Bangladesh. Its client lists include

reputed public universities and government agencies that are responsible for infrastructure development works. Some of their mentionable projects include the road construction works in Bandarban hills, the 10-storied academic building development work for Khulna University of Engineering and Technology (KUET) and the campus development project of Jagannath University. These projects reflect the company's affiliations with big institutional clients. By maintaining professional relationships and meeting client requirements, the company continues to secure ongoing and future long-term projects.

2.2.4 Supply Chain

R.N Enterprise consists of a vast network of raw material suppliers like bricks, sand, rods and metals, logistics suppliers, heavy machineries and equipment providers, subcontractors, diesel providers and other relevant service companies. The organization purchases construction materials from a list of approved suppliers. Smooth coordination between the corporate team, procurement teams and suppliers is essential to ensure timely delivery of materials and services and uninterrupted project works. Such efficient and effective supply chain management enables R.N Enterprise to take firm control of their costs, timeline maintenance and quality standard assurances across all of its projects.

2.3 Management Practices:

2.3.1 Overview of Management Practices

The R.N Enterprise management practices are structured in such a way that it can support the execution of large-scale construction projects by the execution of effective planning, coordination, and supervision. The company follows a management approach that helps them to collaborate human resource management, site-level supervision and centralized corporate administration. These practices ensure operational efficiency, compliance with necessary and required

standards and on– time project delivery while maintaining workforce accountability and control.

2.3.2 Human Resource Planning & Leadership Style

R.N Enterprise, which is mostly reliant on human resources for its kind of work, focuses on ensuring the availability of skilled and effective manpower required for different stages of construction and development works. The management schedules the workforce based on project scale, duration and complexities. Accountants, Management Trainees, Engineers, On Site Supervisors, Machine operators, skilled human laborers, and other staff are allocated accordingly to maintain efficiency and maximum success rates of operations at project sites. Since it is a labor-work oriented organization, the management team needs to have a strong hold and control. The organization is more of an autocratic style since it's the boss who is the final authority and decision maker and the whole organization has to follow his instructions and leads. Due to this, there is less mismanagement when it comes to decision making and process set up and this is one of the major reasons behind the company's position and success.

2.3.3 Recruitment, Training and Development

R.N Enterprise recruits people who have prior experience in civil and construction works. They are more focused on hiring laborers and expert engineers who work on site and supervise projects and quality standards. Since they deal mostly with government related and big projects, the accountability is more and the people such as engineers, managers, supervisors have to have prior work experiences and also have to go through a series of steps and verifications before getting employed in the company.

The company focuses more on on-the-job learning and practical skills, mostly for site-level employees and technical staff. New workers are typically led by

experienced supervisors and engineers to make them familiar with work processes, safety practices and operational standards. Even though the formal training programs are less, practical exposure and continuous supervision help the employees to develop their skills and work efficiency.

2.3.4 Site Management

Site management plays a vital role in the overall project management work of R.N Enterprise. Site managers, supervisors and engineers are responsible for daily operational planning, labor supervision and record keeping, coordination with suppliers and logistics along with daily progress and work reporting. Their work is to ensure that construction activities are carried out according to project requirements, schedules and safety requirements. Regular communication between site management and the corporate office facilitates coordination and issue solving.

2.3.5 Corporate Management

R.N Enterprise has a specialised corporate team that manages strategic decision-making, financial and record control, procurement and overall project monitoring. The management team provides directions and direct orders to the on site supervisors and managers, looks over major expenses and ensures compliance with contractual terms. This type of management helps the company to maintain consistency in operational procedures across its different projects.

2.3.6 Work Environment

The work environment at R.N Enterprise is project-based and aggressive, which is a common nature of the Bangladeshi construction industry. Employees operate in both corporate office and project sites as required, which demands adaptability and cooperation. The company focuses on extensive teamwork, regular

communications and following strict safety guidelines to maintain a secure and productive work environment.

2.3.7 Appraisals and Compensations

R.N Enterprise provides compensation and benefits based on employee performances, work, roles and project requirements. Salary and wage structures for employees, laborers and operators are determined on a fixed monthly, daily or hourly basis, while even compensating them for additional services to the company. The company tries to ensure a timely salary and wage payments along with basic employment benefits in accordance with company policies and labor regulations.

2.4 Marketing Practices:

2.4.1 Overview of Marketing Practices

R.N Enterprise's marketing practices are mainly aimed towards securing contracts from government agencies and wings, public institutions and large organizations. Unlike the regular mass consumer-focused businesses, the company’s marketing approach highlights strong connections and networks, credibility, capability, compliance and prior project performance rather than generalised promotional activities. Marketing strategies are closely linked with tender applications and participations, professional networking, and reputation within the construction sector.

2.4.2 Marketing Strategies

R.N Enterprise follows a marketing strategy that focuses more on relationship-building and project-oriented. The company actively keeps updated and also participates in different government and institutional tender processes and prepares detailed technical blueprints, budgets and financial proposals in

accordance with the project requirements. Previous project experience, compliance records and company qualifications play a key role in strategic elements. Maintaining strong and professional relationships with required and relevant authorities and stakeholders also forms an important part of the company's marketing strategy.

2.4.3 Target Customers

The main target customers of R.N Enterprise are government agencies, public organizations and educational institutions that are involved in and require infrastructure development works. These customers typically require contractors with strong licensing and documentation, proven work/project experience, financial solvency and capabilities along with compliance with regulatory standards. By focusing on institutional and public sector clients, the company focuses its operations with large-scale, long-term client projects rather than small private development works.

2.4.4 Positioning Strategy

R.N Enterprise positions itself in the industry as a reliable and experienced first-class construction contracting company in the Bangladeshi market. The company focuses on high value networking, timely project completion, adherence to quality standards and compliance with contractual obligations as its core positioning qualities. This positioning strategy helps R.N Enterprise to stand out from other smaller and big contractors of its kind and strengthens its reputation when competing for large and technically complex projects.

2.4.5 Branding Activities

The branding activities of R.N Enterprise are focused on project performance and organizational reputation rather than regular formal advertising like most other businesses do. Successful completion of high-valued projects, like buildings and

infrastructure development works of government and big public corporations, contributes significantly to the company's brand recognition. The company's ranking as a government-licensed first-class contractor and its alliance with reputed public institutions strengthens its brand image more within the construction industry.

2.5 Financial Performance and Accounting Practices:

2.5.1 Brief Overview

Since R.N Enterprise is a cash heavy business, the role of its financial and accounting practices play a crucial part in supporting the operations of R.N Enterprise. As a large scale construction company, handling multiple projects at a time requires effective financial management and accounting procedure. It is necessary for cost control, cash flow management, and complying with regulatory requirements for the company. The accounting practices of the organization are linked with suppliers and procurement, site-level operations and central financial supervision.

2.5.2 Accounting System

R.N Enterprise currently has a manual and semi-digital accounting system. Most financial data is collected from project sites as handwritten vouchers, bills, logs and records which are sent to the corporate for verification and entered into excel-based accounting dashboard. The excel system has been designed as such that it has different dashboards for different accounts which are maintained for site expenses, labor wages, labor and machine hours, supplier payments, machinery usage, purchased materials delivery and fuel consumption. Even

though this system allows very basic record-keeping, it requires significant manual effort, close monitoring and cross-verifications to omit errors and duplications as much as possible.

2.5.3 Financial Reporting Practices

R.N Enterprise prepares yearly financial and operational reports based on the excel datas, bank statements, project reports, budgets and financials and other methods that only the senior management has access to. These reports include summaries of different expenditures, purchases as well as losses that come from site expenses, supplier liabilities, labor costs, machineries, materials, corporate costs and salaries and other expenditures as well. The reports are prepared by senior accountants and other senior management which are then submitted to and discussed with the boss to support upcoming budgets, plans, payment decisions, costs and project evaluation. Financial reporting largely depends on the accuracy and timing of data received.

2.5.4 Budgeting and Cost Control

The R.N Enterprise budgeting process is mainly project-based. The planning phase is first done before starting a new project where the estimated costs of each project is done by considering material requirements, no of labor required, labor costs, logistics costs, machinery usage and other site-related expenses. During the time of project execution, actual expenses that occur are compared with the budgeted numbers to monitor cost differences. Site managers and accounts people combinedly play a role in controlling unnecessary expenditures and ensuring budgetary figures.

2.5.5 Internal Control Practices

Internal control practices at R.N Enterprise happen at their corporate office where their focus is on verification and authorization of financial day to day transactions. Expense vouchers, logs, supplier bills, and payment requests are reviewed and approved by responsible authorities before being recorded under the direct order of the owner of the company. Cross-checking of site-level records with supplier bills and invoices and other supporting documents helps reduce issues. However, the reliance on manual documentation and recording process increases the need for continuous supervision and verification.

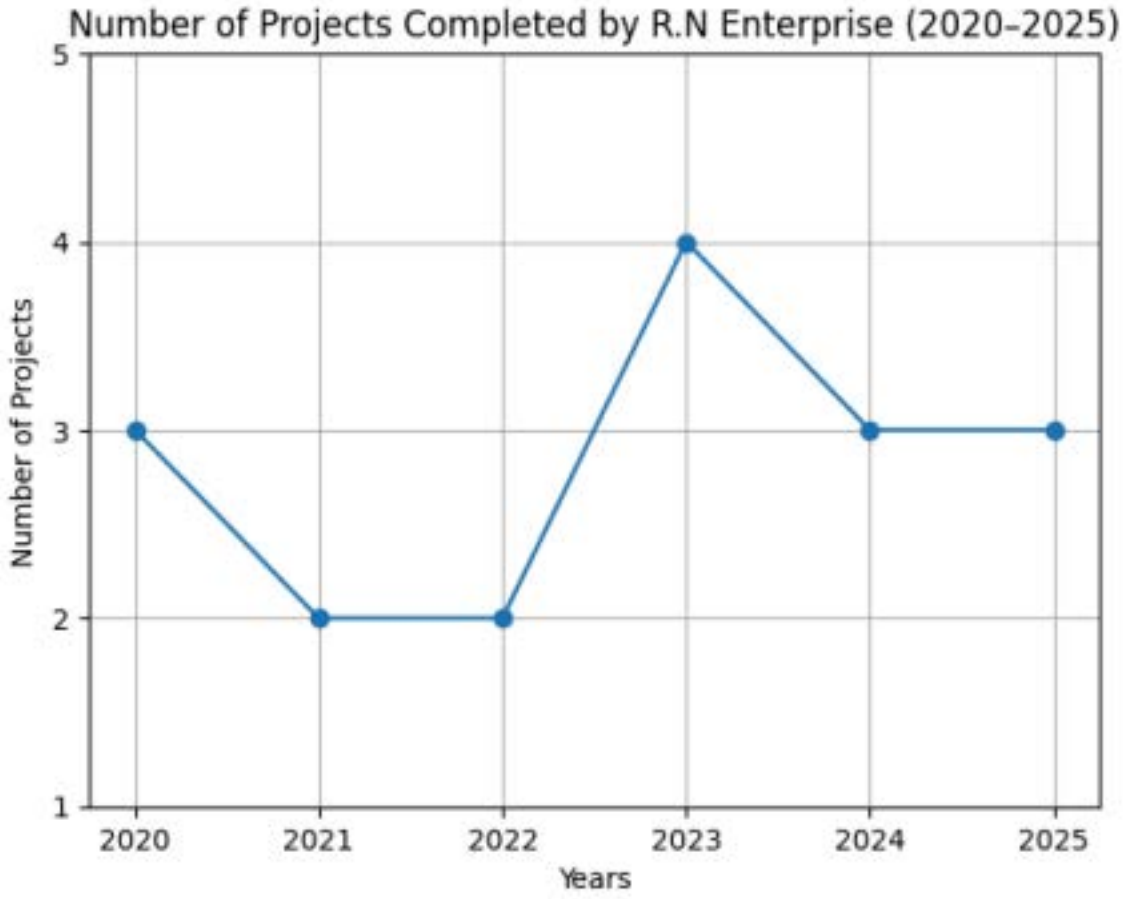
2.5.6 Disclosure

Due to the confidential and sensitive nature of R.N Enterprises financial information, I did not have direct permission and access to in depth financial and transactional statements, profit and margin figures or internal records of R.N Enterprise. As a first-class construction company, the organization does multiple large-scale projects each financial year, including institutional and infrastructure developments, road constructions, water development works etc that are individually valued at several tens of crores of Bangladeshi Taka (based on limited information sourced and discussed).

By observation and having involvement in day-to-day accounting activities, it can be stated that R.N Enterprise handles projects with high numerical figures, often undertaking multiple projects valued at approximately 100-200 crores BDT annually. Financial information related to budgeting, expenditure, payments, and cost control are managed with strict supervision and under authorization due to the scale and sensitivity of these projects.

This disclosure section is added to clarify the limitations of accessibility of these financial data while still providing an overview of the financial and accounting significance of the company.

Figure:1 Year wise Project Completion by R.N Enterprise



2.6 Operations Management and Information System Practices:

2.6.1 Use of Information Systems to Collect, Store, Process, and Share Data

R.N Enterprise depends on a limited use of information systems to manage its company data. Most operational and financial data are collected and sent manually from construction sites and suppliers through handwritten invoices, vouchers, bills, attendance sheets, and labor and machinery logs. These documents are physically transferred to the corporate office, where the information is first received, checked, verified and then manually entered into excel spreadsheets for storing and processing.

Microsoft Excel is used as the primary and only digital tool for managing, processing, and transferring data among the accounts and management department. Separate tabs and dashboards are used for different types such as site expenses, labor hours and wages, supplier bills and payments, machinery and materials costs. Data sharing mostly occurs through file transfers and printed documents rather than real-time digital uses.

Thus, integration of information and data for R.N Enterprise across the various departments remains limited and the flow is often slow and error prone.

2.6.2 Use of Databases or Information System for Quality Management

R.N Enterprise does not use any database management system or information software for quality management. Records of quality control, inspections reports and compliance information are recorded, transferred and stored via manual documentation and very basic digital files like notes, whatsapp and cam scanners. Microsoft Word files are used to store certain quality-related information. The absence of an integrated and centralized database limits their tracking, analysis and validity of quality standards.

2.6.3 Scheduling and Operation Management Systems

The company does their scheduling and operation management through manual planning and on-site-level coordination. Project schedules, labor deployment on project sites, raw materials required, machinery requirement and usage plans are prepared by site supervisors, managers, accountants and procurement team based on the current project requirements and communicated verbally, digitally via whatsapp groups or through basic documents. Excel sheets are sometimes used to track labor and machine working hours, fuel consumption etc but there is no dedicated software system for real-time scheduling or operational planning and tracking.

The dependency on manual data collection and excel tools represent the company's weakness in information system uses. The absence of an integrated MIS or ERP software increases the risk of data errors, inconsistency, delays, fraud and difficulty in coordination. These form the foundation for the MIS-based project proposal discussed in the upcoming chapter of this report.

2.7 Industry and Competitive Analysis:

2.7.1 Overview of the Construction Industry in Bangladesh

The construction industry in Bangladesh plays a crucial role in domestic economic development, by driving government infrastructure mega projects, urban development, and institutional growth. Public sector investments in roads and highways, bridges and dams, educational and public institutions and land development projects have increased the demand for qualified and highly technical construction firms. As a result, competition among contractors has increased, particularly for governmental projects.

2.7.2 Porter's Five Forces Analysis

1. Threat of New Entrants (LOW):

The threat of new entrants in the large-scale construction industry especially for firms that work on governmental and public projects is relatively low. These types of firms need high capital, strict regulatory approvals and not easy to get licenses, technical experience and expertise and government connections that act as major entry barriers for most construction firms. R.N Enterprise's First-class contractor license further limits new competition entry in the industry.

2. Bargaining Power of Suppliers (MODERATE):

Suppliers of raw materials that are needed in construction such as metal, rod, cement, sand, bricks, fuel, logistics and machinery hold moderate bargaining power in this industry. Due to having multiple numbers of suppliers in the market, price variances and supply disturbances and delays can have a minimum to moderate effect on project costs.

3. Bargaining Power of Buyers (HIGH):

Government agencies and public institutions who in our case are the buyers for R.N Enterprise, have high bargaining power. They give out project blueprints and specifications, pricing and costings, timelines and terms and conditions through tender processes, which leaves limited bargaining options for contractors like R.N Enterprise.

4. Threat of Substitute Products or Services (LOW):

The threat of substitutes for the industry that R.N Enterprise works in is low, as large-scale infrastructure and institutional construction projects cannot be easily given to any random firm and cannot be replaced easily. These types of projects need many steps of verifications, licensing and conditions since these are big, complex and sensitive projects. Contractors must, however, compete with firms

offering more efficient processes, price quotations, experience or advanced technological abilities.

5. Competitive Rivalry (HIGH):

Competitive rivalry among existing firms is high in case of R.N Enterprise. Numbers of government-licensed contractors compete for limited large-scale tenders, making the pricing, technical competence, experience critical factors in getting contracts. Also, contractors links, lobbies and network play a very crucial role in winning contracts and project works.

2.7.3 SWOT Analysis of R.N Enterprise

Strengths:

- Government-licensed first-class contractor status.
- Experience in large and medium infrastructural projects.
- Skilled and large workforce and technical expertise.
- Strong network, lobby and relationships with public sector clients.

Weaknesses:

- Manual record-keeping and excel-based systems.
- No use of integrated and centralized information systems.
- Delayed and error prone data verification, managing and reporting methods.

Opportunities:

- Increased investment in infrastructure, education and public sectors

by government bodies.

- Use of MIS or ERP systems to improve efficiency, reliability and accuracy of data and procedures.
- Adoption of technologically advanced project management practices.

Threats:

- Rising and extensive competition among first-class contractors.
- Increasing and fluctuating material and fuel costs.
- Project delays due to regulatory, political or environmental factors.

The competitive analysis of this industry in particular shows us the importance of efficient and technical management practices and the need for technological integration for sustainability in the construction sector.

2.8 Summary and Conclusions:

The chapter-2 of the report provided a complete overview of R.N Enterprise by exploring its company structures, management practices, marketing channels and approaches, financial and accounting systems, use of information systems and competitive positioning. The detailed analysis showed how the firm operates its works as a government-licensed first-class contractor and manages a number of large-scale projects through a combination of centralized control, administrational supervision and site-level execution.

The analysis demonstrated that even when R.N Enterprise has strong technical abilities, experienced management team and skilled workforce and a stable industry position, it still continues to depend on manual documentation and excel-based systems for operational and financial data management. This dependency creates

challenges for the company that affects their efficiency, accuracy, data integration and on demand information availability. Moreover, increasing competition between other competitors and project complexities require improved organizational systems and better information management.

Finally, the findings give out a clear foundation for the project part of this paper. The weaknesses and limitations found in information and data handling and system collaboration clearly identify the need for an MIS-based solution. These issues are discussed in detail in the following chapter, where we proposed an integrated Management Information System; to mention an ERP based framework to enhance accuracy, efficiency and decision-making at R.N Enterprise.

2.9 Recommendations/Implications:

Based on the analysis done in this chapter, a few recommendations and implications can be taken out for improving the organizational and operational efficiency of R.N Enterprise. These recommendations are given keep alignment with academic guidelines and are intended to support future improvement rather than immediate transformation.

Firstly, R.N Enterprise may consider changing its processes from using existing excel software and manual documentation systems to a more reliable, structured, efficient and sustainable Management Information System. A centralized and integrated data management and storage system along with systematic data entry formats could help to significantly reduce common but major issues like data duplication, errors and delays in data processing.

Secondly, improved communication between site-level operations and the corporate office is recommended. Introducing a digital submission of expenses, labor attendance and allowances and fuel and machinery operation, usage data would help to increase transparency and ensure timely verifications and reporting activities. This integration would also help to increase control over the processes

and reduce dependency on handwritten records.

Finally, from an academic and real life perspective, these recommendations highlight the necessity of information systems in construction project management. The findings of this report suggest that adopting MIS-based methods can improve decision-making, efficiency and accountability of everyone involved in the company.

Chapter-3 : Project Part

3.1 Introduction

The third part of the report focuses on finding an operational problem of R.N Enterprise and proposing a Management Information System (MIS)-based solution.

3.1.1 Background of the Study

The current construction industry of Bangladesh demands for on-time and accurate information which helps to play a critical role in ensuring project success, schedule, efficiency, cost reduction and effective decision-making. Construction companies operate through single as well as multiple project sites at a time while maintaining centralized administrative control and accounting operations. This creates a strong demand for an integrated information system that can connect different departments of construction companies in real time.

While doing internship at R.N Enterprise, it was seen that most operational and financial activities are recorded and transferred manually through various document forms like logs, vouchers, receipts, bills, sheets etc and supported by basic Excel record keeping. Data such as site-related expenses, labor wages, attendance, purchase records, machinery time logs, fuel purchase and usage records as well as

supplier bills are prepared manually at the project sites and then transferred to the corporate office to the accountants for verification and entry into excel. This system of data record, transfer and entry often causes delays in data availability, duplication and increased risk of human mistakes.

Since the organization works on multiple large-scale projects, the use of manual and excel based systems creates challenges in finding actual project costs, site performance, employee records and creating real time management or project reports. Data mishandling and mismanagement between sites and the head office affect budget control, internal monitoring and decision-making. These problems become more crucial as the project's budgets, requirements and competition continue to increase.

The background of this study is made on the problem of disintegrated, backdated and manual information handling processes of R.N Enterprise. The study aims to justify opportunities on how undertaking an integrated ERP system can address these problems mentioned by improving data security, accuracy, efficiency, duplication and integration across different departments of R.N Enterprise and firms like this. The identification of this problem forms the base of the project and guides the required and suggested findings and proposed system structure discussed in the following sections of this chapter.

3.1.2 Problem Statement

As we have discussed all along the report, R.N Enterprise currently uses a manual and Excel-based data handling system. This method has supported basic record keeping for the company but has become increasingly inefficient while managing multiple large-scale projects. The absence of an integrated MIS-system results in shattered and scattered data flow between project sites and the corporate office, which creates operational inefficiencies and data transfer delays. The current system records all the company’s expenses, procured items, labor and machine-related data manually at sites by site supervisors and managers and then transferred to the accounts department in the corporate office. Handwritten logs, vouchers, sheets and bills are used to document purchases and receiving of materials such as steel, rods,

sand, soil, fuel, bricks etc and to enter diesel consumption data for heavy machinery like excavators, generators, trucks and bulldozers. Labor and operator attendances, daily wages and allowances, site related expenses etc are also noted manually. Upon receiving these documents, the responsible people in the accounts department then verifies the information and records against supplier invoices, bills, challans and other records before clearing and entering them into company Excel dashboards. This manual process leads to several identified problems such as:

- **High possibilities of data entry errors and duplication**- as the same data can be re-entered multiple times at different tabs on Excel creating risks for wrong entry and also multiple untraceable entries.

- **Difficulty in real-time tracking**- since data from different project sites arrive at different time intervals which can cause on time data unavailability .

- **Lack of departmental data integration**- as different departments such as procurement, accounts and site management work on scattered files and records and lack centralized integration.

- **Vulnerability to fraud or data manipulation**- as handwritten records can be easily forged or misrepresented it creates issues like frauds.

These mentioned problems result in process inefficiencies, time delays, improper decision-making and a lack of transparency in financial records. Apart from these, the company's management frequently faces difficulties in getting actual, up-to-date information that is important for costings and budgeting, supplier payouts and performance/financial analysis.

3.1.3 Objectives

The main objective of this report is to analyze the current manual and Excel-based data recording methods at R.N Enterprise and to propose an integrated solution which in this case is an Enterprise Resource Planning (ERP) software suitable for a company of similar structure.

The objectives of the report are as follows:

- To figure out crucial operational and data management practices arising from the current manual system.
- To examine how the absence of system integration affects areas such as site-level operations, accounting, procurement and management decision-making.
- To evaluate the potential opportunities and advantages of adopting a modern ERP system in improving data accuracy, reliability and error.
- To gather employee feedback on the limitations of the existing systems and the opportunities of introducing an integrated digital solution.
- To assess and evaluate relevant case studies and academic journals from authentic sources on how MIS/ERP adoption can help companies in construction and similar industries to solve these data related problems.
- To propose an effective and user friendly MIS/ERP solution that aligns with the demands and resource requirements of R.N Enterprise.

These objectives help to structure the report ensuring academic establishment and practicality.

3.1.4 Significance

The aim of this report is to offer a Management Information System based solution for the operational and accounting process requirements of R.N Enterprise. The system will focus on integrating information related to site expenses, office expenses, labor attendance and wage records, machinery operational hours and operator allowances, supplier payments and bills, schedule receipts of goods on-site, logistics costs and records and fuel purchase-consumption data under a centralized integrated system. A system like this will help R.N Enterprise to minimize

their dependency on manual data entry and handwritten documentation.

This report will also focus on the existing information management issues, analyze their effects on cost, process efficiency, data accuracy and propose a digital framework i.e ERP software solution to tackle and minimize these challenges. The framework will highlight the system’s functionabilities like its design, structure, information flow and core operations such as data validation, duplicacy, cross-departmental integration and automated and on time reporting. Finally, the proposed framework is expected to improve overall data reliability, efficiency and decision-making accuracy within the company.

3.1.5 Scope of study

The report's scope is limited to investigation of the data management processes of R.N Enterprise and offering an ERP-based solution that is best fit for its operational structure. The findings focus mainly on site-level operations, accounting works and record keeping, financial budgeting and cost analysis, procurement activities and reporting systems, as these departments are most affected by the current system.

The study covers the findings of system-related issues, employee concerns regarding current methods and an evaluation of related academic and organizational case studies on MIS and ERP adoption to minimize data related issues. Based on these, the study offers a conceptual integrated system framework rather than a full-fledged software solution.

Our report does not explain detailed technical structure and design, codes and coding comparisons. Moreover, due to the company's confidentiality concerns regarding its data, access to their detailed financial information and internal strategic reports was limited. The scope of the study is therefore limited to a qualitative and conceptual analysis oriented with academic guidelines and practicality within the organization.

3.2 Methodology

This section describes the methodological processes followed to conduct the third part of the report. A qualitative research approach is selected, along with limited quantitative analysis.

3.2.1 Research Design

The research design method selected for this report is the descriptive and analytical research design. Descriptive analysis is used to describe and record the current information management practices at R.N Enterprise, whereas the analytical techniques were applied to demonstrate how an integrated ERP system could solve these issues. The research design highlights actual organizational observations rather than experimental takes.

3.2.2 Sources of Data

This report uses both primary and secondary data sources that were used in completing this paper.

Primary Data:

Primary data were collected via direct observation and acknowledgement during the working period, informal conversations and interviews with employees from different departments of the company, which included site managers and supervisors, accountants, and procurement people. In addition to these, a small survey was conducted among a number of employees to understand and get their feedback and opinions, their experiences with the existing manual system and their perceptions along with eagerness regarding the need of an integrated and centralized solution.

Secondary Data:

Sources such as academic journals, industry cases and reports, relevant case studies, and authentic online sources related to MIS and ERP implementation were used as secondary data sources. These sources are selected that are relevant to construction and project-based firms. These sources were used to support

theoretical analysis and to compare actual/real time cases of other firms who had similar situations like R.N Enterprise.

3.2.3 Survey Design and Sample Selection

The survey type selected for this case is a short structured survey that consists of two to three basic and direct questions focusing on problems faced with the existing manual system and the viewed benefits of an integrated digital solution. The participants of the survey were selected from different departments of the company to ensure diverse and solid perspectives. The sample included employees working in project sites, finance and accounts and procurement departments. Due to organizational restrictions, the sample size of the survey was kept small.

3.2.4 Data Analysis Techniques

The accumulated qualitative data were analyzed through subjective analysis, focusing on everyday issues like data transfer delays, duplication, transparency and coordination related problems. Survey responses were explained and shown using graphical representations such as pie charts to visually present employee point of views. Analysis for the secondary data was done through comparative analysis of case studies, reports and journals.

3.3 Findings and Analysis

The findings and analysis section represents the major findings derived from primary data source and analysis conducted during the period. The findings are based on employee observations, informal conversations, interviews and a small survey conducted among selected employees from different departments of R.N Enterprise. The analysis focuses on recognizing real time operational issues related to the existing manual and Excel-dependent system and evaluating the usefulness of an integrated MIS or ERP solution.

3.3.1 Overview of Survey Respondents

To understand the current process and system-related challenges from multiple perspectives, a short survey with basic question-answers was conducted among four employees from 3 different departments of the company. The respondents included:

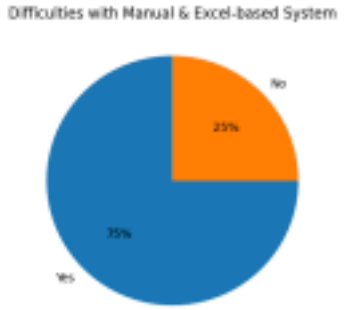
- Site Manager (On-Site Operations)
- Site Engineer (On-Site Operations)
- Senior Accounts Manager (Accounts Department)
- Procurement Executive (Procurement Department)

Samples from these diversified respondents ensured that perceptions and opinions were collected from both site-level and corporate-office operations, providing a balanced overview of the company's information management problems.

3.3.2 Survey Questions

The following three questions were used for the survey based on the issues discussed in earlier sections with their responses:

- **Q1:** Do you face difficulties in your daily work due to manual data recording and reporting?

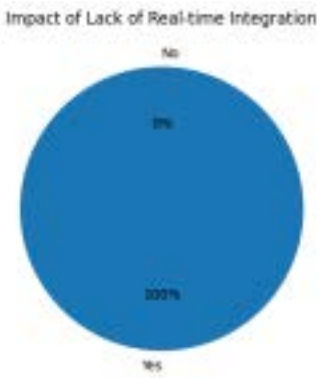


Responses: **Yes: 75% (3 respondents)**

No: 25% (1 respondent)

Figure:2 Employee Survey Question % Chart

● **Q2:** Does the absence of real-time data integration and a centralized system between project sites and the corporate office affect your work efficiency?

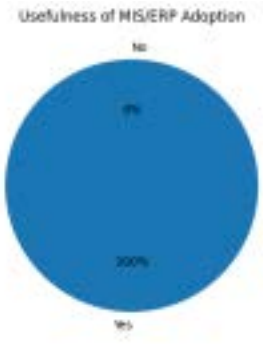


Responses: **Yes: 100% (4 respondents)**

No: 0% (0 respondent)

Figure:3 Employee Survey Question % Chart

● **Q3:** Do you think that an ERP system would improve data transfer, coordination, accuracy and decision-making in R.N Enterprise?



Responses: **Yes: 100% (4 respondents)**

No: 0% (0 respondent)

Figure:4 Employee Survey Question % Chart

3.3.3 Key Issues Faced with the Current Manual System

Three out of four respondents complained that the existing manual recording and Excel-based reporting create daily operational challenges and difficulties. Common problems faced that they mentioned include delayed submission of site data to the corporate office, multiple time and place of data entry, difficulties and time consuming in tracking past records and too much time spent on verification and correction of submitted site data, bills, invoices, vouchers etc. On-Site employees shared challenges in sharing recent information to the corporate office, while accounts and procurement employees highlighted inconsistencies and delays in receiving accurate data. They also complained about the excel recording system since the entry takes too much time and also integration of data is not possible which creates a lot of issues for them. These findings confirm that the existing system has its limitations in efficiency and increases dependency on manual work, especially when managing multiple projects at a time.

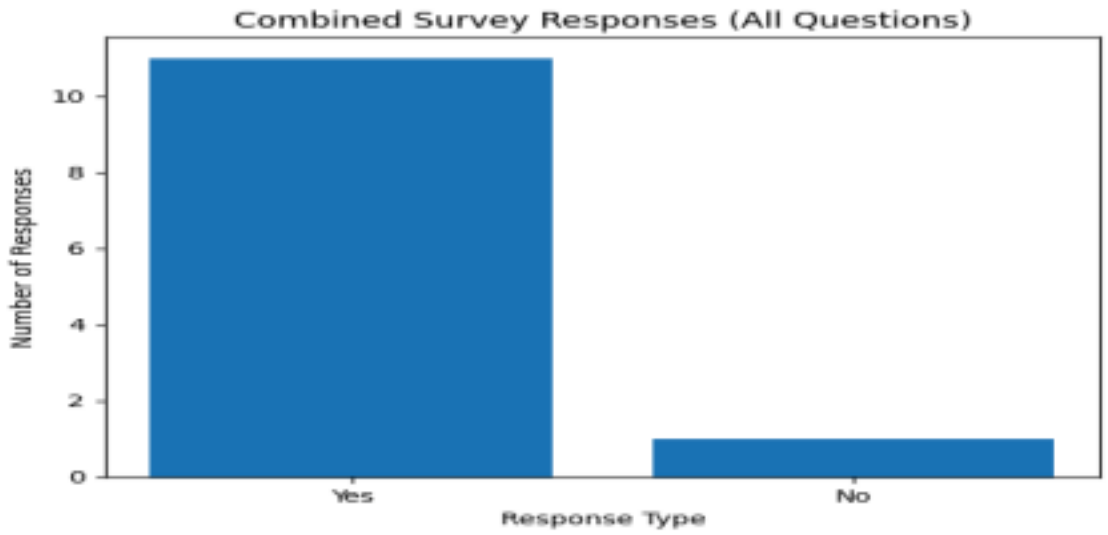
3.3.4 Employee Perception on MIS/ERP Integration

The third question's responses displayed strong agreement among all the 4 respondents about the potential advantages and need of an integrated MIS or ERP system. Employees at R.N Enterprise believe that adopting a system and process like this would ensure centralized control and authority over the data, reduce manual paperwork, improve data transfer and accessibility and even support effective and error-free decision-making. Accounts and procurement department employees particularly stressed on the importance of automated recording and reporting systems.

3.3.5 Summary of Survey Findings

The findings of the survey demonstrated a clear link between the mentioned problems and employee experiences of those challenges. All the employees from different departments of R.N Enterprise who responded to the survey question recognize the challenges of the current system and acknowledge the value of adopting an integrated ERP solution. These insights provide practical reasoning for proposing an MIS or ERP-based system to R.N Enterprise.

Figure:5 Combined Survey Response Chart



3.4 Review of Relevant Case Studies and Literature

This section highlights related academic literature and real-life case studies relevant to the introduction and use of MIS and ERP systems in construction and project-based companies. The purpose of this review is to assess if similar firms have successfully addressed operational challenges through system integration and to extract lessons that are applicable in case of R.N Enterprise.

3.4.1 MIS/ERP Adoption in the Construction Industry

Firms that are in construction typically operate in a highly disintegrated environment where they have to work on multiple projects, stakeholders, suppliers and workers and interact with them simultaneously. According to Laudon and

Laudon (2022), integrated systems play an important role in improving coordination among different departments, standardization of processes and formats and decision-making in such complex organization and project works. MIS and ERP systems open doors to centralized data management and authority, storage, reporting automation, accurate and real-time access to information across different departments.

A number of studies have provided insights that construction organizations adopting ERP and other digital systems experience improved cost control, enhanced project monitoring and efficient communication between on-site operations and management (O'Brien & Marakas, 2019). These systems particularly work in reducing manual paperwork and minimizing errors caused by multiple data entry.

3.4.2 Case Study Evidence from Similar Organizations

Aloini, Dulmin, and Mininno (2012) examined use of ERP in project-based firms and found that the firms achieved notable improvements and success in operational efficiency and data management after the digital system adoption. The study highlights the fact that phased implementation and upper management support were crucial to the key success factors of this.

Another case study reveals that a mid-scale construction firm in an emerging economy reported that the adoption of ERP systems allowed them to integrate various departments of their company like the procurement department, site management, accounts and management which resulted in faster reporting periods and improved budget control and monitoring (Khosrowshahi & Arayici, 2012). Although initial unwillingness to change from the existing manual system was observed among employees, structured training programs and highlighted system advantages gradually improved system acceptance among the company's employees. These case studies and findings are highly relevant to the case of R.N Enterprise, as the company shares similar characteristics and challenges like the mentioned case study ones.

3.4.3 Lessons Learned from the Literature

The reviewed case studies and literature shows several crucial success criterias for MIS/ERP adoption in construction companies:

- Management's strong commitment and clear implementation intentions
- Gradual but firm transition from handwritten manual to automated systems
- User training and adaptability management programs
- Modification of the system to address construction-specific processes

The literature also demonstrates common challenges faced in similar contexts, including unwillingness of employees in adopting new digital systems, high costs of introducing and setting up the system and data transfer to the new system related difficulties. However, most studies focus on the fact that long-term benefits outbalance short-term challenges when implementation is properly executed.

To sum up, the discussed case studies and academic sources favor the feasibility and necessity of adopting an integrated MIS or ERP system for R.N Enterprise. These findings provide a strong theoretical base for the proposed system framework discussed in the next section.

3.5 Proposed ERP Framework for R.N Enterprise

This part of the chapter represents how the proposed ERP framework was designed especially for a construction company like R.N Enterprise. The discussion indicates a conceptual and functional framework that shows how an integrated system can support the organization’s operations in a practical and feasible way.

Figure:6 Integrated System Working Framework

3.5.1 Overview of the Proposed Framework

The ERP system proposed in this report for R.N Enterprise is meant to integrate site-level operations with management and accounting departments. The system has a centralized database where all the data related to operations, accounts and management are stored and real time access can be got by authorized users of the system. Each department of the company works with it through defined modules based on their functional duties.

The selected framework for this system follows a modular architecture, which allows the system to have gradual implementation without obstructing any continuing projects. This approach allows the system to ensure adaptability, scalability and user friendliness for employees using the system so that the transitioning from a manual system is not a big issue for them.

3.5.2 Core Modules of the Proposed ERP System

a) Site Operations Module

Daily site-level data like labor wages, site expenses, labor attendance, heavy machinery operating hours, material consumption and daily site reports can be recorded and captured using this module. Employees and supervisors responsible for site management can enter daily site data as mentioned directly into the system using respective options and modules designed for this part which helps in reducing delays in data transfer, human errors and manual paperwork.

b) Procurement and Inventory Module

This module records and manages purchase requirements, supplier data and transactions, receipts and invoices of materials purchased, inventory tracking, etc. The procurement model allows integration with site operations which lets the system do automatic updates of material usage and real time stock updates, improving interrelation and control over cost.

c) Accounting and Finance Module

This module allows the system to record all types of regular financial transactions such as bank payments, material bills, office and site expenses, supplier payouts, labor wages and allowances, project-wise cost summaries etc. Data from other modules like site management and procurement is automatically flown into the accounting module reducing repetitive data entry and improves the accuracy, consistency, transparency and quality of data. The data can be seen by the users of the accounting module, verify and then authorize the entry of the data into the accounting system. The history of the data or records can also be very easily accessed by applying filters and ranges.

d) Management Reporting Module

The final module of the system, which is the reporting module, helps to generate standardized reports for project works of R.N Enterprise such as project cost breakdowns and summaries, comparisons of budget vs actual costs and departmental as well as site work performance and progress reports. Management can access real-time dashboards of the ERP system to make on time and accurate decision-making.

3.5.3 Data Flow and System Integration

The proposed system allows the data entered at the site or procurement level to be automatically stored in a centralized database and be made accessible and available to related departments. For example, site expense and other mentioned data of the site entered by the site manager on the ERP system are immediately accessible to the accounts department for verification and recording. Using this data, management can easily see any information required and also create reports of different periods on different data as they want. This integration helps the flow of data to minimize duplication, increase efficiency, enhance transparency and ensure consistency across the firm. The system will also help to store data which can prevent loss of information, fraud and many other issues.

3.5.4 Feasibility and Adaptability

The proposed ERP system is feasible for R.N Enterprise because of its modularity and scalable properties. The system can be implemented moderately, starting with core properties such as site operations and accounting. The data of the existing system i.e excel data can be transferred into the system to ensure consistency.

Training programs by management and a user-friendly interface can help

employees adapt to the proposed system. Since the framework is of generic kind, it allows customization of the system based on organizational needs without the need of extensive technical complexity.

3.6 Real-Life Challenges Observed Under the Manual System

This section highlights two real-life cases observed during the working period that demonstrate practical problems arising from the current manual and excel system at R.N Enterprise. These situations provide solid evidence of the challenges discussed earlier and further justify the demand for an integrated digital solution.

3.6.1 Situation 1: Data Mismatch in Fuel Purchase Reporting

One time, there was a serious situation in the company where there was a huge mistake in the fuel purchase records. The bills of the fuel purchase that were submitted by the procurement department did not match the amount received and used in one of the sites. There was a difference of about 13 lacs taka worth of fuel. Since the accounts department recorded daily and bulk purchase of fuel from the bills that procurement department submits and the data of consumption and receiving of those fuel came from the site, both the data did not match which should have matched. The whole accounts, procurement and site managers sat with all their documents and receipts and spent two days tracking that mistake down. Eventually the mistake in the record was found which was a missing piece of paper which had consumption history of the fuel on site. The paper was lost during transportation and only a backup of the paper helped to identify the mistake. This cost the company two days worth of time and effort of the management team and was a big hassle for everyone since the amount was massive. This highlights the weak data transfer, record and storing system of R.N Enterprise.

3.6.2 Situation 2: Procurement Coordination Issue Due to Lack of Real-Time Information

In another scene, the procurement team once had to place an order for some construction materials that went low on inventory based on manually updated stock information received from a project site. But due to the delays in updating consumption information, the actual requirement of materials on the project site at that time had already changed. This delay led the procurement team to purchase additional materials that were not required and deliver them at the project site. This situation caused a storage issue and resulted in an increase in costs. The absence of real-time and updated inventory information, stock visibility and internal communication between the site and procurement team was the reason behind this mistake.

The above mentioned events help to understand how the dependency on handwritten and manual systems can negatively impact the company's operational efficiency and cost control. An integrated ERP system with real-time data access could reduce such problems significantly by ensuring accuracy, efficiency and flexibility.

3.7 Advantages, Disadvantages and Transition from Manual to Automated System

3.7.1 Advantages of ERP Adoption

The ERP system offers many benefits for R.N Enterprise. The system enables the company real-time data accessibility and a centralized data storage system, which helps to enhance the coordination of data and communication between project sites and the corporate office. Data duplication can be reduced and errors caused by humans can be minimized by adopting and using the system.

Moreover, the integration of the systems improves the transparency of shared or transferred data and increases internal control by allowing the organization's management to closely and accurately monitor site related costs, material consumption data and project performance records on a timely basis. A standardized reporting system increases efficiency in management decision-making and contributes to better budget control. Furthermore, reduction in paperwork and fast flow of information increase overall organizational efficiency.

3.7.2 Disadvantages and Challenges of MIS/ERP Adoption

Even with all the potential benefits discussed of the system, the ERP can also pose certain challenges. Initial implementation of the system demands investments, employee willingness to adopt and training and also time commitment. Resistance to change is normal mostly among employees who are used to manual processes. Data transfer from existing excel dashboards, files and manual records may also cause short-term troubles.

However, these disadvantages are largely transitional and can be reduced through proper planning and training to employees.

3.7.3 Transition from Manual to Automated System

For R.N Enterprise, a gradual and not immediate transition from their existing manual system to automated ERP system is recommended. This will help them to minimize any operational disturbances that might happen due to the shift. The transition process may start with site data recording and accounting functions, which will gradually be followed by procurement and management departments. Existing excel recordings can be migrated into the new system to ensure continuity of information. Moreover, training should be given to employees of both site and corporate-office to make them used to the ERP systems usage and benefits.

Support of the company's management and regular feedback from the users of the system are necessary to encourage the acceptance of the system. Over time, as the employees are trained and used to the new system, the company can fully transition from their existing manual process to an automated digital solution.

This structured shift helps R.N Enterprise to ensure feasibility, sustainability and success in the long run.

3.8 Summary, Recommendations and Conclusion of the Project Part

The third part of the report focused on finding critical operational problems for R.N Enterprise and proposing a solution for those problems which we recommended an integrated ERP-based solution aligned with the company's structure and working processes. Through practical studies, employee survey results, real-life problems and review of relevant industry/organizational cases, it was clear that the current manual system had reduced the company's operational efficiency and decision-making practices.

The findings showed that the disintegrated data flow between different departments of the company creates delays, errors and coordination problems. Employee survey results further confirmed the need for an integrated solution and a demonstration of a positive attitude toward adopting the digital solution.

The proposed ERP system provides a structured yet flexible approach for the integration of the system. Its implementation strategy, design of the modules and importance on training and adaptability of the employees make the ERP suitable for a construction company like R.N Enterprise. The shift from handwritten manual systems to an updated centralized system may cause short-term challenges for both the company and the employees, but the long-term advantages significantly exceed the limitations.

To sum up, the findings support R.N Enterprise's potential future shift toward a more centrally integrated, digital management system, contributing to the organization's sustainable growth and improved performance.

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