

**Internship Report on  
Tendering Process and Project Management at Max Infrastructure Ltd.**



**Submitted to**

**Islamic University of Technology**

**in partial fulfillment of the requirements for the degree of BBA in Business and Technology Management  
(BTM)**

**Submitted by:**

**I understand that my final report will become part of the permanent collection of the Islamic University of Technology BBA in Business and Technology Management Program. My signature below authorizes release of my final report to any reader upon request.**

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## LETTER OF TRANSMITTAL

Date: 2 May, 2023

Farjana Nasrin  
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### **Subject: Submission of Internship Report**

Madam,

I am submitting the internship report titled "Tendering Process and Project Management at Max Infrastructure Ltd." as part of the internship program. Working directly under your direction was a huge personal achievement for me. The report that follows is my best effort to depict the current situation of our firm and to reflect on my personal observations while working for the organization. Working at Max Group, has opened up a world of opportunities for learning about the company's field operations and personal development. It was an honor to work there and meet the deadlines set by you. I will be available for any explanation. If required. I would be grateful if you could accept my report and offer me with any expert advice or feedback you may have. If you think my study is useful or beneficial in any manner, it will be a huge success for me.

Sincerely Yours,  
Mohammad Al Rafi  
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## **ACKNOWLEDGEMENT**

I would like to use this occasion to express my heartfelt gratitude and respect for my faculty supervisor, Farjana Nasrin, Assistant Professor, Department of Business and Technology Management, Islamic University of Technology. The blessings, support, and knowledge that she has given us on occasion will lead us a long way along the road of life that I am about to go on. I owe her a debt of gratitude because she has put forth her entire effort into driving the team toward the goal, and she has taken a keen interest in my research report and has guided me throughout the process, till I have accomplished my job by providing all of the essential material.

I had the active assistance of my company supervisor, Shadman Shakib, Engineer of Business Development, as well as Shariful Islam (Consultant, Corporate Governance), Gilles Alexandre Goepfert (CEO, Max Infrastructure), and other officers of Max Group while I was putting up the report. I'd want to express my heartfelt gratitude to them for their collaboration, regular practical learning and mentoring, and support throughout my internship. They provided me with knowledge and resources at every stage throughout my internship program. During my internship, I worked with Shadman Shakib as my respected superior, and he assisted me with all of my duties and responsibilities. He deserves my heartfelt thanks for his aid in learning the company culture, work routine and over all preparation of the report.

I would also want to express my gratitude to colleagues from many positions, including Irfan (Executive, Business Development), Mashuk Ahmed (Sr. Executive, Finance). Their enthusiastic engagement in all of my concerns and queries throughout my internship attachment has contributed to the overall success of my experience.

## **EXECUTIVE SUMMARY**

The report primarily focuses on the new project of Carbon Trading, which was proposed by the CEO of Max Infrastructure Ltd. Max started their journey from 1983. Now they have become one of the largest conglomerates in this industry. Their success can be seen if we look at some of the mega projects in Bangladesh. Their contribution is almost everywhere in infrastructure sector of Bangladesh. However Max did not get to this stage very easily. They had to face so many challenges and competitors to win the contracts. They had to fight against top construction companies with diplomacy and technical ability. Business development team here plays the main role to win the deals by competing foreign and domestic companies. Tendering process and procurement is a complex system where qualifying and winning a contract is not an easy task. For that long-term experience and negotiation skill is needed. Which I was taught by my supervisor. Foreign companies and their competency is another factor that we need to consider if we want to win a contract. For that technical qualification and financial qualification is the main criteria which is achieved and planned by the Business Development team in Max Group. Secondly various new profitable and unique projects are taken and executed here. Carbon Trading which is already operated in Europe and America; is the newest and revolutionary initiative in Bangladesh. Which we are working on to reduce total GHG emission and offset carbon to gain carbon credit and enter the global carbon market. This initiative can change the whole scenario of all the industries in Bangladesh. Also successfully implementing renewable and sustainable energy in the industrial zone of Max Group is a remarkable success. At present, we are focusing on installing solar panels as a substitute of bio fuels. It can give us a huge carbon offset, energy saving, cost efficiency and also environment safety.

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# **Chapter 1: Introduction**



## **1.1. Background of the Report**

Knowledge and learning are transformed into perfection when they are paired with theory and practice. The application of theoretical knowledge leads to the refinement of that knowledge in practice. As the parties involved, namely the academic institution and the organization, have reaped tremendous benefits from a program known as "Internship," the main goal of internship is to teach students and prepare them for the realities of the corporate world. This paper was done as part of my requirements for obtaining a Bachelor of Business Administration in Technology Management under the direct supervision of Assistant Prof. Farjana Nasrin mam.

## **1.2. Origin of the Study**

This report is necessary for me to finish my internship program for my BBA in TM degree. I used all of the most up-to-date knowledge because I have been working for this firm as an intern in the Business Development Department for the previous three months. As part of my employment, I was in charge of obtaining information and keeping track of actions throughout the company's entire project management process. I was given the option to maintain track of the activities linked with this importation procedure study. Shadman Shakib, my supervisor, guided and assisted me as I completed this report.

## **1.3. Specific Objective**

- ✓ To learn more about Max Group. and Procurement Process
- ✓ To be aware of the present mission, vision, goals, and objectives of the organization
- ✓ To have a thorough understanding of tendering method

## **1.4. Methodology**

From the information phase until the final presentation of the findings, a rigorous procedure is followed throughout the inquiry. I addressed my internship experience at Max Infrastructure of Max Group , which culminated in this report, in this report. This was a three-month period in which I conducted descriptive research and applied my hands-on experience.

**Primary Source:** Numerous discussions with representatives from various departments of Max Infrastructure. Furthermore, while performing my duties, I obtained the necessary information.

**Secondary source:** In addition to primary sources, information from the Internet and Max Group website has been acquired and derived.

## **1.5. Limitations**

- The collecting of primary data is usually a challenging task, and it is even more difficult to ensure that the material is real.
- Managers are hesitant to disclose firm secrets with interns since the Business Development department works with so many confidential documents of the government agencies.
- Obtaining the most accurate picture is always a difficult endeavor.
- Because of the limited amount of time available, it is difficult to comprehend the complete procurement process.

## **Chapter 2: Company Overview**

## **2.1 Brief History**

Since 1983, MAX GROUP has been a shining example of sustained development and consistent advancement in Bangladesh's industrial sphere. MAX began as a modest leaf spring manufacturing company and has grown to become one of Bangladesh's largest conglomerates, contributing considerably to the country's industrial, infrastructure, and development sectors.

For more than 35 years, MAX has been a reliable and trusted partner of the Government of Bangladesh in the development of infrastructure in key sectors such as railway, power generation, nuclear power plants, power transmission, flyovers, elevated expressways, bridges, water control and supply structures, overhead water reservoirs, embankment and shore protection, dredging, high-rise residential and commercial buildings, and so on. MAX has its own cutting-edge equipment business with over 1200 modern construction machines. MAX is the country's largest EPC firm. MAX is the most experienced and dependable local turnkey solution provider in the Railway Track Construction segment, and it is currently the only Bangladeshi company that manufactures the majority of railway track fittings (except the rail itself) in its own factory to meet the demand for its rail projects. MAX has completed numerous vital and significant railway projects and is now undertaking the first and second largest single contracts in Bangladesh Railway history.

### **Footsteps in different sectors**

Aside from railways, MAX has a significant presence in Bangladesh's flyover and bridge construction markets. MAX has built the port city's largest flyover, Chattagram. Furthermore, MAX is building the city's largest Elevated Expressway, which will connect Lalkhan Bazar to Sha-Amanat Airport. MAX has also completed numerous bridge projects around the country. Dhaleswari Bridge 1 & 2 (total length 923 m), PC Girder Bridge over Bhairab River, Jessore (696.75 m), PC Girder Bridge over Madhumati River, Magura (600.70 m), and others are among them.

MAX owns and runs a 78.5 MW gas-fired power plant in Ghorashal, Narshingdi, as well as a 163 MW combined cycle power plant in Fenchuganj, Sylhet, establishing itself as a prominent participant in the power sector.

MAX also manufactures a variety of stainless steel products, including dinnerware and pipes of the highest quality. For the domestic market, the business combines various grades of industrial and vehicle lubricants. In addition, the company manufactures export quality leaf springs in its own facilities. MAX also plays an important part in the country's fashion arena with the establishment of an exclusive fashion brand entitled

"SCICCOSO," which is one of the most preferred brands among Bangladesh's fashion-conscious people. On a different note, MAX is the official dealer in Bangladesh for three well-known construction equipment manufacturers: SDLG, ICARO, and FASSI.

### **Long term Experience**

It is worth noting that MAX employs 400+ graduate engineers who work tirelessly on its various projects and sectors. These highly skilled engineers have all of the necessary skills to complete projects of any size and complexity safely and on time. MAX's experience, diversity, and global relationship with the world's largest international companies in the United States, Russia, Europe, China, and India have enabled it to evolve in lockstep with the key business advancements of the last 35 years. MAX has established itself as one of the most sought business partners for both foreign and domestic enterprises due to its high ethical standards, unwavering dedication to compliance, and execution excellence. MAX is always working to improve performance, drive industrialization, create market opportunities, and maintain growth and value for its stakeholders.

## **2.2 Vision**

Thriving as the advanced business leader in quality Mega-Project Delivery, reinforced by its innovative strategic project management methodologies, MAX intends to become the EPC Service Provider of FIRST choice in the country. MAX targets to attain in-house EPCM capability by 2021, shall generate high value 15,000 direct employment by 2025.

## **2.3 Mission**

MAX is a company that is owned by both its owners and employees. It will achieve its visions through the establishment of a group strategic project management office (SPMO) which will lead to the implementation of safety as a pivotal culture and the acquisition of up-to-date EPC/EPCM capabilities. MAX will thrive vertically in the manufacturing wing growth, augmenting the strategic supply chain of the mega-projects and boosting project and corporate ROI. MAX will achieve listing in the DSE by October 2020 and engage in the road show to float an IPO. As a socially responsible company, MAX will achieve business growth through a structured organization dedicated to attaining its sociotechnical obligations. These include skills and knowledge enhancement initiatives at national level, sticking to sustainable development goals (SDG-2030) and supporting Vision 2041 of the GOB.

## 2.4 Products and Services

Currently Max has massive contribution in the following sectors:

**1. Max Infrastructure Limited:** Max has completed several key projects, including railways and MRT, the Kushiara Power Plant Project, a water treatment plant, flyover projects, bridge projects, embankment and shore protection, and an overhead water tank and distribution reservoir.

Railway Track Fittings (Meter Gauge Steel Sleepers, Dual Gauge Steel Sleepers, Fishplates, Nuts, Bolts, Fishbolts, Bearing Plates, Switch Expansion Joints, Dog Spikes) are also manufactured.

**2. Max Power Limited:** EPC services for a simple cycle gas-powered power plant at Ghorasal, Narshingdi, Bangladesh.

**3. Kushiara Power Company Limited:** Combined Cycle Power Plant EPC works at Fenchuganj Substation, Fenchuganj, Sylhet

**4. Max Pre-stress Limited:** The company began producing pre-stressed concrete (PSC) sleepers.

**5. Max Industries Limited:** Their specialty items include Stainless Steel Crockery, Kitchen Utensils, and SS Pipes.

**6. Inox Industries Limited:** The firm was established with the intention of exporting locally manufactured premium quality stainless steel pipes, crockery, and cutlery to global markets.

**7. Max Building Technologies Limited:** They have a large number of current and completed construction projects in Dhaka's residential and industrial sectors.

**8. AFA Steel Industries Limited:** The company is committed to providing high-quality springs at reasonable costs. The corporation has appointed dealers all around the country and serves a diverse customer base in both the heavy and light vehicle segments.

**9. LUB house industries Limited:** The company is in the business of blending lubricating oils and marketing various grades of lubricants under the brand name "NATIONAL LUB."

**10. Heavy Equipment and Motors Limited:** They also became the official distributor for various world-renowned brands such as SDLG, ICARO, FASSI, and others.

**11. SCICOSSO:** SCICOSSO is a fashion house that symbolizes the style, attractiveness, and sophistication that everyone desires.

**12. Maxcrete Limited:** Max developed AAC blocks in Bangladesh, which are light weight, cost effective, and, most significantly, an environmentally safe alternative to toxic clay-based brick.

## 2.5 Marketing Strategy

An infrastructure company's marketing strategy in Bangladesh would be determined by a variety of elements, including the company's goals, target market, competition, budget, and resources. MAX Infrastructure is a renowned infrastructure development business in Bangladesh, and the following are some of its marketing methods for brand promotion:

1. **Strong brand image:** MAX Infrastructure focuses on developing a strong brand image that reflects company beliefs and competence. This is accomplished by establishing a unified brand identity across all marketing channels, including social media, websites, and offline advertising.
2. **Digital marketing:** Digital marketing provides a variety of techniques for targeting and engaging customers. MAX Infrastructure should employ digital marketing platforms such as social media, search engine optimization (SEO), and email marketing to reach out to its target audience and generate leads.
3. **Showcase successful projects:** Showcase successful projects: MAX introduces potential clients to its successful initiatives. This is accomplished through the use of case studies, testimonials, and project presentations. MAX Infrastructure can showcase its competence and develop trust with new customers by demonstrating its accomplishments.
4. **Participate in industry events:** To promote its services and network with potential clients and partners, the company attends industry events such as trade shows and conferences. This can boost the company's visibility and lead generation.

5. **Developing partnerships:** MAX Infrastructure is constantly forging collaborations with other companies in the sector in order to broaden its reach and capabilities. For example, it might collaborate with architects, engineering firms, and suppliers to provide its customers with a broad range of services.
  
6. **Sustainable development:** In the infrastructure industry, sustainable development is becoming increasingly crucial. MAX Infrastructure is committed to creating long-term solutions that fulfill the needs of its clients while minimizing its environmental effect. This might serve as a crucial difference for the organization and attract environmentally sensitive clients.

## 2.6 Marketing Mix

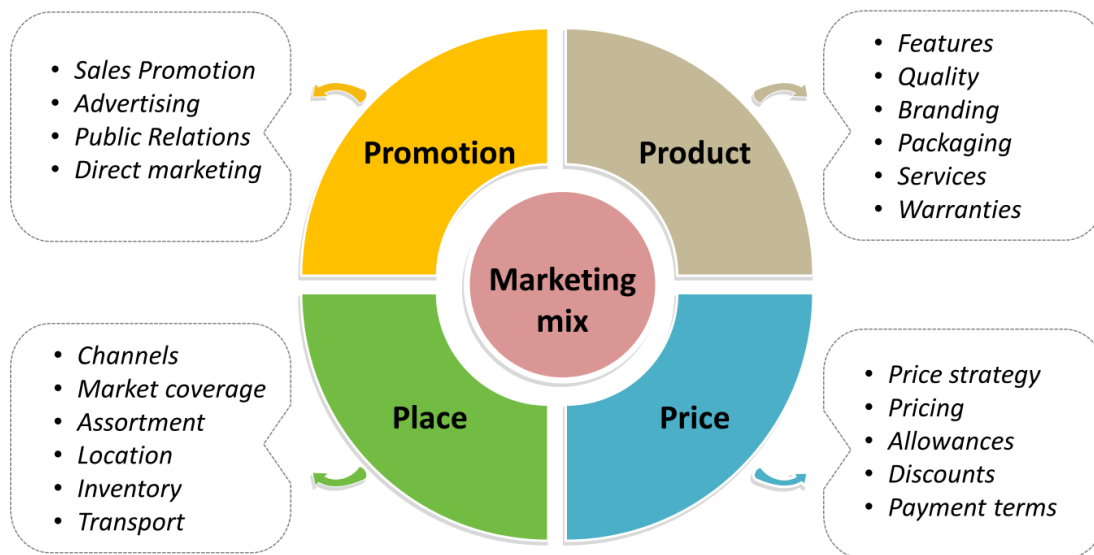


Fig 1: Marketing Mix

**Product:** MAX Group provides infrastructure development services such as engineering, construction, maintenance, and project management. MAX Infrastructure BD may separate itself from competition by focusing on providing sustainable and innovative solutions that fulfill the needs of its customers. To boost customer satisfaction, the organization can also provide custom solutions for individual clients and projects.



**Price:** MAX charges competitive rates for its services while also reflecting the value of the knowledge and quality it provides. Pricing techniques may differ depending on the project's kind and scope. Depending on the demands of the client, the corporation could use fixed-price contracts or cost-plus contracts.

**Place:** MAX Infrastructure BD should have a significant local presence in Bangladesh, including local offices and personnel. This would allow the company to better understand its customers' needs and provide customized service. The organization could potentially consider expanding its reach through joint ventures or collaboration with other infrastructure firms in the region.

**Promotion:** MAX Group's target audience can be reached through a variety of promotional techniques. This could include posting advertisements in business journals, attending trade shows and conferences, and highlighting company expertise and success stories on social media. The firm can also use direct marketing tactics such as email marketing and customized direct mail to contact certain clients or industries.

**2.7 SWOT Analysis**

<p><b>S</b></p> <p><b>STRENGTHS</b></p>	<p><b>W</b></p> <p><b>WEAKNESSES</b></p>	<p><b>O</b></p> <p><b>OPPORTUNITIES</b></p>	<p><b>T</b></p> <p><b>THREATS</b></p>
<ol style="list-style-type: none"> <li>1. Strong Reputation and expertise</li> <li>2. Diversified services</li> <li>3. Strong Partnership</li> <li>4. Major Experiences</li> </ol>	<ol style="list-style-type: none"> <li>1. Dependence on Government</li> <li>2. Limited Experience</li> <li>3. Potential for competition from other infrastructure companies</li> </ol>	<ol style="list-style-type: none"> <li>1. Growing Demand in BD</li> <li>2. Increasing investment in infrastructure</li> <li>3. Oversea projects</li> </ol>	<ol style="list-style-type: none"> <li>1. Political Instability &amp; corruption</li> <li>2. Natural disasters</li> <li>3. Increasing Competition</li> </ol>

Fig 2: SWOT Analysis of MAX Infrastructure

**Strengths:**

- Strong reputation and expertise in the infrastructure industry in Bangladesh.
- Diversified portfolio of services, including railway construction, power generation, and urban development.
- Partnerships with significant government agencies such as Bangladesh Railway and BPDB are strong.
- Worked on large-scale projects in Bangladesh, including the Padma Bridge Rail Link and the Rooppur Nuclear Power Plant.

**Weakness:**

- Dependence on government contracts, which can be subject to delays or changes in funding.
- Limited experience working on projects outside of Bangladesh.
- Other infrastructure companies in Bangladesh may pose a threat.

**Opportunities:**

- Population expansion and urbanization are driving the need for infrastructure development in Bangladesh.
- Increasing government infrastructure spending, such as the Bangladesh Delta Plan 2100 and Vision 2041.
- Opportunities to expand services outside of Bangladesh exist, such as in neighboring South Asian countries.

**Threats:**

- In Bangladesh, political instability and corruption can have an impact on commercial operations and contracts.
- Natural catastrophes or climate change impacts, such as flooding or sea level rise, may cause delays or disruptions.
- Increasing competition in Bangladesh from both domestic and multinational infrastructure corporations.

## 2.8 Porter's Five Forces



Fig 3: Porter's Five Forces

1. **Threat of New Entrants:** According to an Asian Development Bank study, Bangladesh's infrastructure industry requires significant capital investment, technical competence, and solid contacts with government agencies, posing a high barrier to entry for new players. In this sense, MAX Group has an advantage over newcomers due to its existing reputation and experience.
2. **Bargaining Power of Suppliers:** The building materials and equipment markets in Bangladesh are extremely competitive, with several vendors fighting for business. However, MAX Group may have an advantage in this area due to its size and scale, allowing it to negotiate favorable terms with suppliers.
3. **Bargaining Power of Buyers:** As previously noted, government agencies and state-owned enterprises are the primary consumers in Bangladesh's infrastructure industry. MAX Group may find it challenging to maintain great relationships with these businesses, but its established reputation and experience may help it obtain repeat business.

4. **Threat of Substitutes:** In Bangladesh, infrastructure projects are usually highly tailored to the client's exact needs, making alternatives difficult to join the market. MAX Group may be able to differentiate itself from the competition by offering innovative solutions and embracing new technologies.
5. **Intensity of Competitive Rivalry:** The infrastructure industry in Bangladesh is very competitive, with several major domestic and international players competing for contracts. MAX Group competes with both domestic and global firms, and it must continue to enhance service quality and innovate in order to remain competitive.

## 2.9 PEST Analysis



PEST analysis is a strategic technique for analyzing external macroenvironmental elements that can have an impact on a company's operations and performance. Based on information accessible on their website, below is a PEST analysis of Max Group, a significant corporate group in Bangladesh:

### **Political Factors:**

- Max Group operates in Bangladesh, which is a developing country with a political environment that is prone to instability, corruption, and bureaucratic red tape. This can affect the ease of doing business and create hurdles in obtaining licenses and permits.
- The government has launched several initiatives to boost economic growth and attract foreign investment, such as the One Stop Service Act and the Digital Bangladesh campaign. This can create opportunities for Max Group to expand its operations and leverage technology.

**Economic Factors:**

- Bangladesh has a growing economy with a GDP growth rate of around 6%, and a large population of around 170 million, which presents a vast market for Max Group's products and services.
- However, the country also faces challenges such as poverty, income inequality, and infrastructure gaps, which can affect the purchasing power and demand for high-end products and services.

**Social Factors:**

- Max Group operates in various industries, including real estate, hospitality, healthcare, education, and retail. These industries are sensitive to changes in consumer behavior and preferences, which are influenced by social factors such as culture, demographics, and lifestyle.
- The company's commitment to corporate social responsibility, as evidenced by its initiatives in healthcare, education, and environment, can enhance its reputation and attract socially conscious customers and investors.

**Technological Factors:**

- Max Group has embraced technology in its operations, such as through the use of digital platforms, smart building solutions, and telemedicine services. This can improve efficiency, reduce costs, and enhance customer experience.
- However, the company also faces challenges such as cybersecurity threats, digital divide, and rapid technological changes, which can affect its competitive advantage and market position.

Overall, Max Group operates in a complex yet dynamic environment characterized by political insecurity, economic inequality, social transformations, and technical breakthroughs, which generate both opportunities and hazards. The company's strategic positioning, innovative approach, and social responsibility commitment can assist in mitigating these risks and capitalizing on opportunities for growth and sustainability.

## **Chapter 3: Industry Analysis**

### 3.1 Industry Size and Growth Trends

The construction sector in Bangladesh has expanded quickly in the recent decade as a result of rising urbanization, population growth, and government investment in infrastructure projects. According to a Research and Markets study, the construction sector in Bangladesh is predicted to grow at an 8.78% compound annual growth rate (CAGR) between 2020 and 2025.

Bangladesh's construction industry is large, accounting for around 7% of the country's GDP and supporting approximately 3 million employment directly and indirectly. Small and medium-sized businesses execute the vast majority of construction operations in this highly fragmented market.

Several factors are to blame for Bangladesh's construction industry's growth, including:

**Population growth and urbanization:** Bangladesh currently has a population of over 160 million, and by 2050, 50% of the country's population is anticipated to live in urban areas. Due to this quick urbanization, there is now more demand for homes, businesses, and infrastructure construction.

**Government investment in infrastructure projects:** In order to assist economic development and progress, the government of Bangladesh has made significant investments in infrastructure projects like roads, bridges, and ports. Construction companies now have options to take part in these projects as a result.

**Private sector investment:** The private sector has made infrastructure investments such as residences, businesses, and industrial parks.

**Foreign investment:** Infrastructure projects in Bangladesh have been funded by foreign firms, particularly those from China, Japan, and South Korea.

Overall, urbanization, population growth, and infrastructure investment are expected to support Bangladesh's construction industry's growth trajectory. It is expected that the government's continued emphasis on infrastructure development will provide opportunities for domestic and foreign construction firms to contribute to the nation's economic success.

## 3.2 Maturity of the industry

Bangladesh's building and infrastructure sector is relatively developed, with a development history lasting more than 50 years. With the construction sector accounting for approximately 7% of the nation's GDP, the industry has considerably contributed to the economy's growth and development. According to the Bangladesh Bureau of Statistics, the industry expanded by 9.73% in fiscal year 2019-2020, up from 9.36% the previous year.

The construction sector is a significant contribution to Bangladesh's economy, with an estimated value of \$14.6 billion in 2020. According to a Research and Markets poll, the sector directly or indirectly employs over 3 million people and is expected to sustain its growth trajectory with a compound annual growth rate (CAGR) of 8.78% from 2020 to 2030. The industry is expected to be driven by government investment in infrastructure projects, increased private sector investment, and international investment.

The rise of small and medium-sized firms, as well as the introduction of new companies, has increased the degree of competitiveness in the market. These firms have assisted the development of the sector and encouraged competition, resulting in improved quality and lower pricing.

## 3.3 External Economic Factors and their effect on the industry

Several external economic factors can have an impact on the infrastructure industry in Bangladesh. These are the components:

**Government rules and policies:** The infrastructure sector is heavily influenced by government regulations and policies. Infrastructure development policies such as tax breaks and infrastructure project subsidies can assist the sector flourish.

**GDP Growth:** The growth of the nation's gross domestic product (GDP) has a substantial impact on the infrastructure sector. Greater GDP growth rates result in more infrastructure spending, which may increase demand for building goods and services.



**Interest rates:** Interest rates can have an impact on the infrastructure sector by influencing the cost of funding for building projects. As borrowing costs rise, less money may be invested in infrastructure projects.

**Foreign Direct Investment (FDI):** Because it can finance large infrastructure projects, FDI has the potential to have a significant impact on the infrastructure sector. The level of FDI entering Bangladesh has the potential to influence the overall expansion and advancement of the infrastructure industry.

**Exchange rates:** Exchange rates can have an impact on the infrastructure industry by influencing the price of imported supplies and machinery used in construction projects.

**Inflation:** As the cost of materials, labor, and other inputs necessary in construction projects rises, the infrastructure sector may be impacted. This may result in increased infrastructure development costs.

These external economic pressures have a substantial impact on the infrastructure industry in Bangladesh. Positive government policies, economic prosperity, and foreign investment, in contrast to unfavorable policies, high interest rates, and inflation, can stimulate industrial growth. The government and industry stakeholders must monitor these external economic challenges and take appropriate steps to mitigate any negative repercussions on the infrastructure sector.

### **3.4 Seasonality**

The infrastructure industry in Bangladesh can be seasonal, depending on the type of development activities. Weather conditions and other factors that affect the ability to work outside generally have an impact on construction activity. Seasonal elements that can have an impact on the infrastructure industry include:

**Monsoon Season:** From June to September, Bangladesh experiences a monsoon season, which can cause flooding and make it difficult to complete construction projects. This may cause construction projects to be delayed, reducing construction businesses' profits.

**Festival Season:** The yearly festivals celebrated in Bangladesh, such as Eid, Durga Puja, and Christmas, might have an impact on the demand for construction services. Many people choose to postpone building

projects over the holiday season in order to focus on celebrations and festivities, which might lead to a drop in business.

**Public holidays:** may also have an influence on the infrastructure sector since construction workers may take time off to celebrate the holidays with their families. This may cause construction projects to be delayed and have an impact on the sector's overall productivity.

Overall, the infrastructure industry in Bangladesh may be seasonal, depending on the weather, holidays, and celebrations. Construction companies must consider these variables while planning their building projects to avoid delays and ensure the proper operation of their business.

### 3.5 Technological Factors

Technological factors are playing an increasingly important role in the infrastructure industry in Bangladesh. Some of the important technological elements influencing the sector are as follows:

**Building Information Modeling:** Building Information Modeling (BIM) is a system for designing, constructing, and maintaining buildings more efficiently. A building information model (BIM) is a digital depiction of a structure. In Bangladesh, BIM technology is being utilized to speed up construction projects, increase accuracy, and save costs.

**Automation in construction:** In Bangladesh, the infrastructure sector is increasingly using automation technologies like robots and drones. In order to lower costs and increase safety, these technologies are being used for jobs including site surveys, construction, and maintenance.

**3D printing:** Concrete blocks and building facades are two examples of the materials and components produced in Bangladesh using this technology. This technique can produce more precise and complicated designs while lowering waste and accelerating construction.

**Green Technology:** The infrastructure sector in Bangladesh is increasingly using green technology, such as renewable energy sources and sustainable materials. By lowering carbon emissions, this method helps increase the sustainability of construction projects.

**Mobile Technology:** Smartphones and tablets, as well as other mobile devices, are being utilized to enhance communication and teamwork on construction sites. Construction timetables, project progress, and real-time team communication can all be managed via mobile apps.

The infrastructure industry in Bangladesh is, overall, being significantly impacted by technical variables, and businesses who adopt new technologies are likely to be more competitive and profitable in the long run.

### **3.6 Regulatory, Political and Legal Concerns**

In Bangladesh, a number of regulatory, political, and legal issues affect the infrastructure sector, including:

**Land Acquisition:** Land acquisition presents a significant issue to Bangladesh's infrastructure sector due to intense rivalry for available land and potential conflicts between landowners and developers. Despite the controls the government has put in place, there are still questions about the fairness and transparency of the land purchase process.

**Permitting and Approvals:** Infrastructure developments in Bangladesh are subject to a number of time-consuming and expensive government agency clearances and permits. The speed and openness of the permission and approval procedure are under scrutiny, which may delay the timely completion of infrastructure projects.

**Political Instability:** The infrastructure sector in Bangladesh may be significantly impacted by political instability. The profitability of construction enterprises and the demand for construction services may be impacted by changes in governmental laws and regulations.

**Corruption:** Corruption in the infrastructure sector is a major source of worry in Bangladesh. Bribes and other forms of corruption can have an impact on the fairness and transparency of the bidding and procurement process, raising the cost and delaying infrastructure projects.

**Safety and Environmental Regulations:** The various safety and environmental laws that the infrastructure business in Bangladesh is subject to may have an impact on the cost and timeline of infrastructure projects. Compliance with these regulations is critical to avoid penalties and legal consequences.

Overall, political, legal, and regulatory challenges may have a substantial impact on Bangladesh's infrastructure sector. Construction firms must be aware of these difficulties and take efforts to follow the rules and reduce any risks that may arise as a result of changes in government policy or other external sources.

### **3.7 Competitive environment and changes**

The competitive landscape in Bangladesh's infrastructure sector is constantly evolving as new enterprises enter the market and existing ones expand their operations. Some of the primary factors influencing the competitive environment are as follows:

**Infrastructure Development:** The Bangladeshi government is heavily investing in the development of new infrastructure, which is bringing up new commercial opportunities for the sector. Furthermore, this investment attracts new competitors, raising the level of competition.

**Technological Advancements:** The infrastructure sector in Bangladesh is seeing a shift in the competitive environment due to the introduction of new technologies including BIM, construction automation, and 3D printing. Companies who adopt these technologies quickly are probably going to be more successful and competitive in the long run.

**Government Policy Changes:** The competitive climate in Bangladesh's infrastructure industry can be significantly impacted by changes to government rules and policies. For instance, modifications to land acquisition or permission requirements may have an effect on the profitability of construction firms and modify the market's competitive dynamics.

**Entry of Foreign Companies:** The competitive climate in Bangladesh's infrastructure sector may be impacted by the introduction of international businesses. These businesses frequently bring cutting-edge technologies and knowledge, challenging local businesses and forcing them to innovate and enhance their operations.

**Economic Conditions:** Economic factors like changes in interest rates or inflation might have an effect on how competitive Bangladesh's infrastructure market is. In the long run, businesses that can adjust to shifting economic conditions are probably going to do better.

In Bangladesh, the competitive landscape for the infrastructure sector is generally changing regularly, and businesses must be aware of these changes and adjust their strategy accordingly. Long-term success is probably more likely for businesses that can innovate, adopt new technology, and adapt to shifting political and economic climates.

## **Chapter 4: Breakdown of Activities**

## **4.1 Working Period**

The three month internship at Max Group is a full-time program. For this reason, as an intern, I am required to work from 10 am to 6pm from Saturday to Thursday and I occasionally required to work longer hours. This is for the sake of appropriate learning.

## **4.2 The topics covered during internship**

The advantage of doing this internship at Max Group is that interns receive the same level of attention as permanent employees. So I believe that doing an internship at Max Group gave me new ideas and helped me understand the tasks. The following are the main topics

- Carbon Credit
- Solar energy
- Tendering Method
- Procurement Procedure
- Construction Company Analysis
- Qualification Criteria
- Expressway project analysis

## **4.3 Carbon Credit**

A carbon credit, also known as a carbon offset, is a unit of measurement that represents the removal, reduction, or avoidance of one metric ton of carbon dioxide (or its equivalent greenhouse gas emissions) from the atmosphere. It is a technique for reducing and compensating for greenhouse gas emissions caused by individuals, organizations, or corporations. Carbon credits play an important part in carbon trading systems and can be utilized by enterprises to meet legal requirements, demonstrate environmental stewardship, or achieve long-term goals. They provide a platform for investing in and supporting initiatives that contribute to global reductions in greenhouse gas emissions.

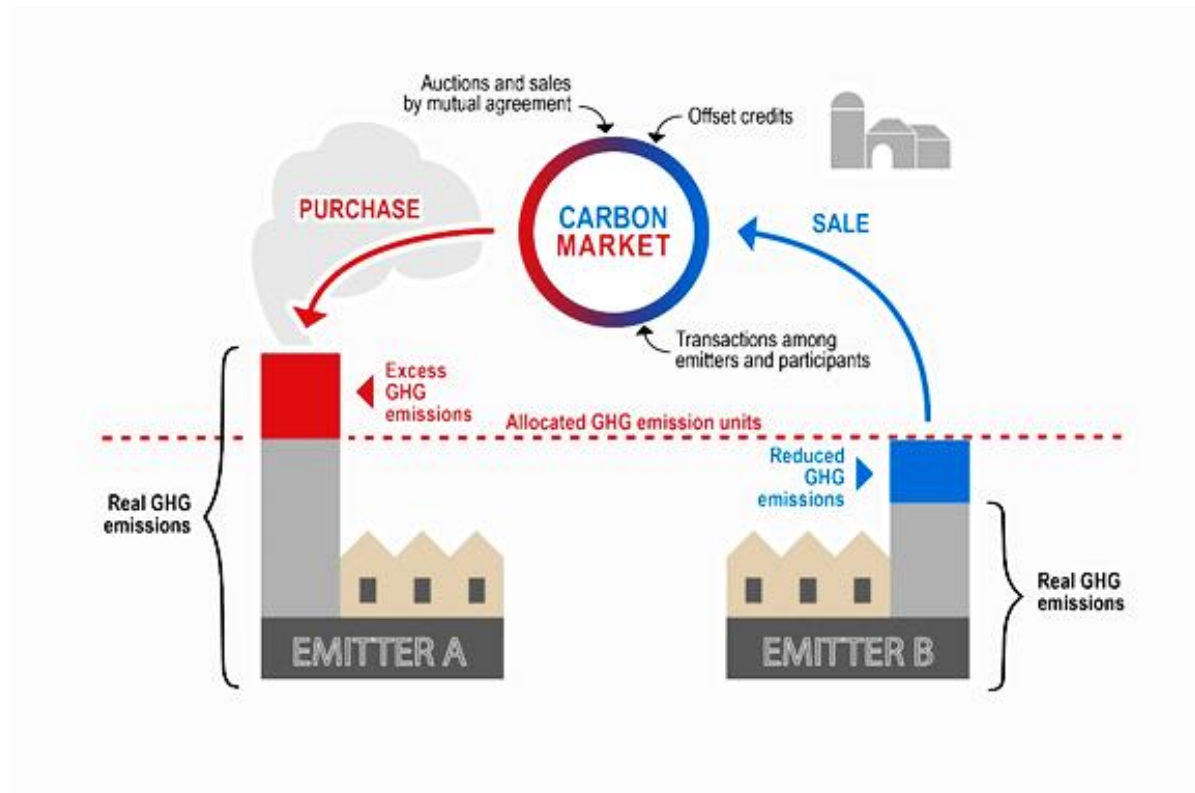


Fig 4: Carbon Trading

There are several benefits or carbon credits that can be achieved if Max Group can implement some offsetting projects. Some of these benefits include



## Direct Benefit

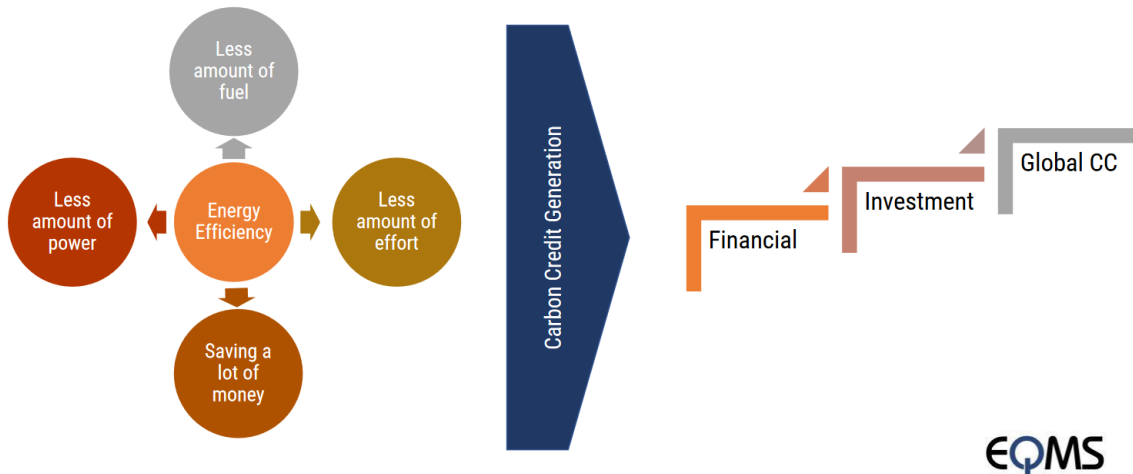


Fig 5: Direct Benefits for the company

Max Group can reduce GHG emissions by following some technology and methods. Some of the most feasible ways

1. **Energy Efficiency:** Max has been implementing so many ideas and techniques to be energy efficient in operations and maintenance. Such as
  - High performance building envelope
  - Efficient HVAC systems
  - Lighting optimization
  - Efficient equipment and appliances
  - Water conservation measures
  - Waste management
2. **Fuel Switching:** Fuel switching in a construction company involves transitioning from traditional fossil fuels to cleaner and more sustainable energy sources. This shift can help reduce greenhouse gas emissions, improve air quality, and contribute to overall energy efficiency. Max successfully achieved this goal by electrification, biomass and biogas utilization, using green construction material

3. **CHP Technology:** Combined heat and power is the most feasible technology to offset carbon emissions. Max is already using this technology in their Kushiara Power Plant. CHP systems have lower greenhouse gas emissions compared to separate heat and power generation. The high energy efficiency results in reduced fuel consumption and, consequently, lower emissions of carbon dioxide (CO<sub>2</sub>) and other pollutants. CHP systems also offer opportunities to use renewable and low-carbon fuel sources, such as biomass or biogas, further reducing emissions and environmental impact.
4. **Recycling materials:** There has been a proposal made to use unrecyclable plastic waste to produce AAC blocks in Maxcrete. This technology is known as OSTO which is 2.5 times lighter than traditional aggregate and also thermally insulating. It can also absorb carbon dioxide from atmosphere.

#### 4.4 Solar Energy

Carbon offsetting can be done in various ways. One of the most feasible way to reduce carbon emissions is to establish renewable energy and eliminating all kind of fossil fuels. Max Group is working on a project to set up solar panels in their industrial unit and reduce pressure on fossil fuels. Initially they studied on the feasibility of solar energy and measuring the amount of credits they can achieve through setting up solar panels in Maxcrete (AAC Block Production Unit).

In Maxcrete solar panel can be used in main shed.

- Panel Required: 2384 Nos
- Inverter: 10 Nos
- Each Panel Capacity- 550 W
- Each inverter capacity- 110kW
- Total produced power by solar in main shed: 1.311 MW

### Overall Shed PV Panel Details

Shed Name	No. of Panels	Capacity (kWp)
SS Pipe Shed	306	168.3
SS Pipe Polish Shed	422	232.1
Heavy Equipment & Motors Shed	388	213.4
Crockery Hand Polish & Cutlery Shed	386	212.3
Rolling Shed	126	69.3
GEO Shed	404	222.2
<b>Total (Existing Shed)</b>	<b>2032</b>	<b>1117.6</b>
Main Shed	2384	1311.2
RM Shed	648	356.4
<b>Total (Under Construction Shed)</b>	<b>3032</b>	<b>1667.6</b>
<b>Total</b>	<b>5064</b>	<b>2785.2</b>

According to SREDA (Sustainable and Renewable Energy Development Authority) For 1 KWp installed capacity the expected energy generation is 20 MWh and this energy can reduce up to 9 tCO<sub>2</sub>. Max has been planning to setup solar panel in all the shed of industrial unit. And in near future they have plan of forestation and agricultural business which will lead to massive carbon offset.

## **4.5 Tendering Method**

Tendering in the construction industry is the process of requesting and receiving a price for a specific scope of work. The tendering process helps ensure true competition based on the same selection criteria. A tender process is used most often by public entities in their bid process but can be seen occasionally in the private sector as the process to identify a suitable contractor for a given project.

The process starts with an invitation to tender (ITT) a construction project [may also be called a request for proposal (RFP), invitation to bid (ITB), or request for qualifications (RFQ)]. The tender document includes all the information needed to provide pricing on the proposed scope of work. Based on the tender documents, contractors provide pricing to the owner. The owner or other parties involved reviews the tenders and selects the best one that fits their needs.

Some agenda items covered in this topic. These are

- ECNEC Meeting
- DPP
- Tender Document Preparation
- Two envelop
- Qualification and technical Stage
- Financial Stage
- Letter of acceptance
- Funding Agency
- Tendering method
- DPM

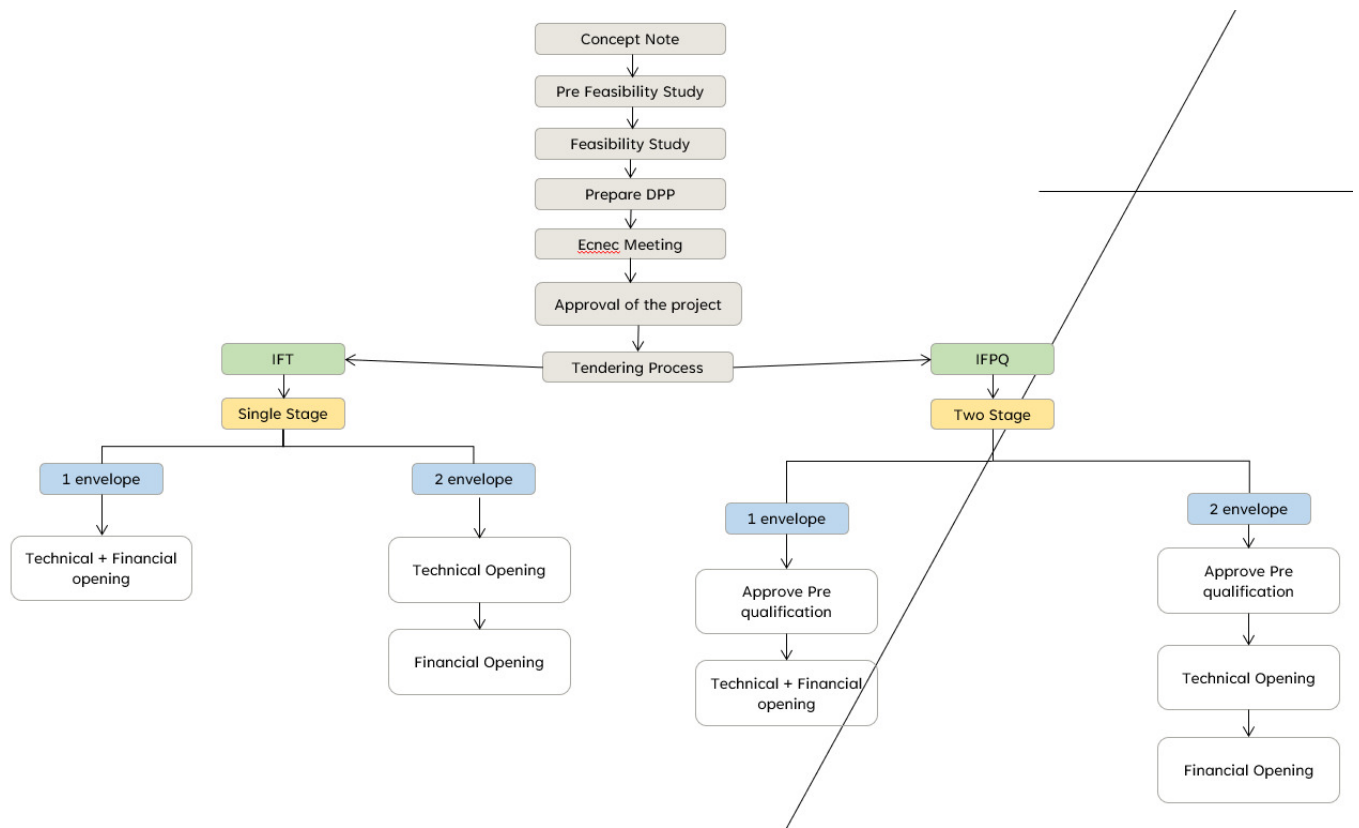


Fig 6: Tendering Process

**Concept note:** The 1st step is to prepare a concept note which is proposed by government organizations in particular area of Bangladesh. In the concept note the need of that project is stated and also the impact of that project is mentioned.

**Feasibility Study:** This stage is also conducted by government organization such as Bangladesh Railway, PDB, WDB etc. In the study few issues are considered and the concept goes through assessment process. Some process include: risk assessment, environmental and social impact, economic impact, project schedule and implementation, and many other factors.

**DPP:** DPP is (development project proposal) which gives the Compact Development Team an opportunity to clarify, elaborate, organize and further develop its initial concepts into a set of specific components explicitly designed to address the root causes of the core problem and achieve the agreed objectives. There are some remarkable contents in the proposal.

- Sponsoring Ministry and executing agency
- Objective of the project

- Logical Framework
- Poverty Mapping
- Feasibility Study
- Benefit-Cost Analysis
- Environmental Assessment
- Risk Assessment

**ECNEC Meeting:** The Executive Committee of the National Economic Council (ECNEC) is an executive committee under the Cabinet Division of the Government of Bangladesh, which verifies, imports, approves and advances nationally important development projects, regardless of the economic status and economic activities in Bangladesh. Provides formulation, review and approval. Meetings of the ECNEC are usually held in the NEC conference room in Sher-e-Bangla Nagar under the Planning Department, Planning Commission. According to the latest Gazette of the Government of Bangladesh published in 2014, the Chairman of the Committee of the ECNEC will be the Honorable Prime Minister of the Government of Bangladesh. In her absence, the finance minister will be the chairman of the ECNEC meeting. ECNEC sets a meeting and issues a proposal of the project to the government. The PM then accepts the proposal thus initiates tendering process.

After the meeting the proposal is approved by the prime minister and then the tender is published in CPTU (Central Procurement Technical Unit) official website. After that the tendering process begins.

The 1st step for tendering is the document preparation. The process goes as follows.

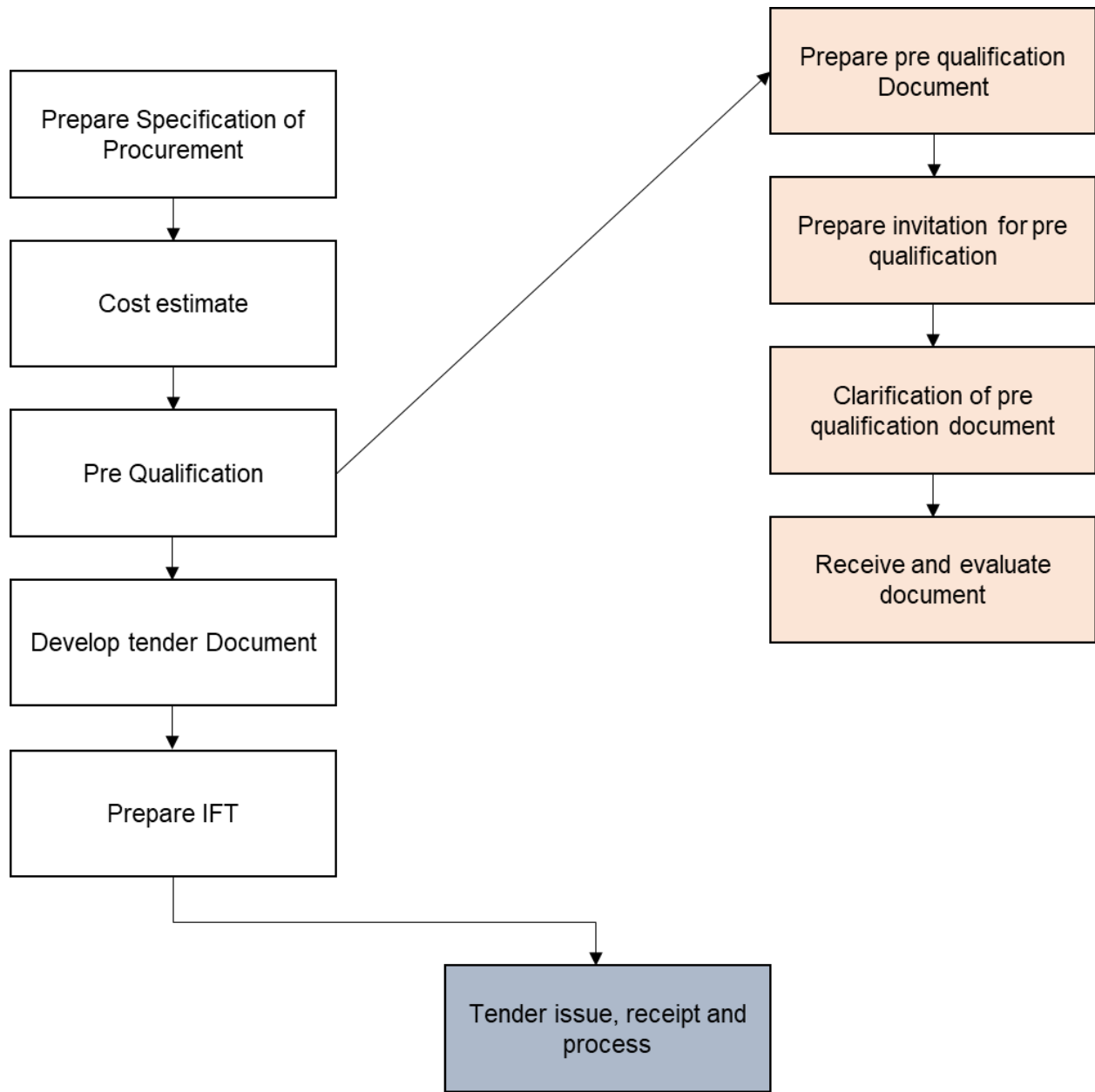


Fig 7: Tender Document Preparation

After the document is ready the next phase is tender issue, receipt and process. This stage is the most important one where we can see different methods in details and how the methods are being followed.

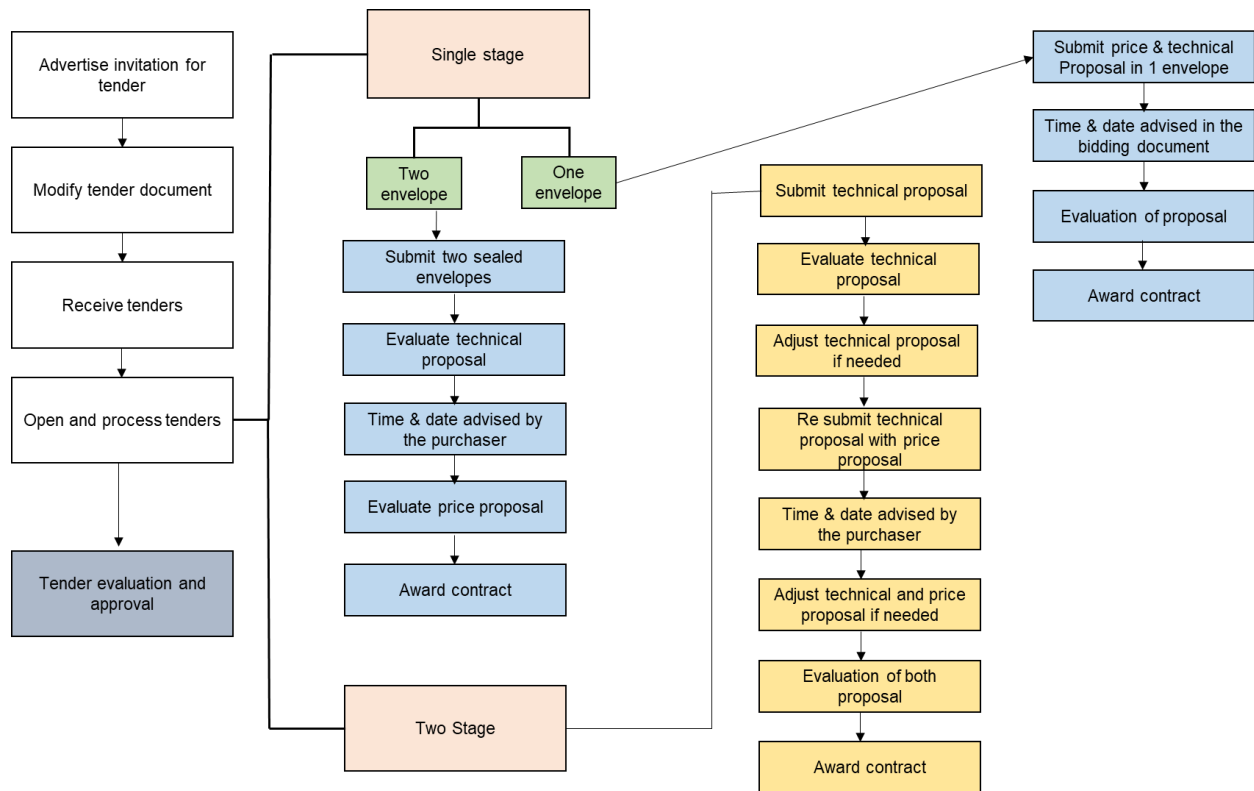


Fig 8: Tender Issue

The process also includes sending invitation to companies who might be interested in the tender. This is called IFT (Invitation for tender). IFT is sent in single stage (No pre qualification is needed) tendering. Single stage tendering process can be of two type. 1 envelope and 2 envelope.

**1 envelope:** In this document both the technical and financial proposals are submitted and then they are evaluated and afterwards the contract is awarded.

**2 envelope:** the proposals are submitted separately. At first the technical proposal is submitted and gets evaluated by the authority. The eligible company gets the opportunity to submit their financial proposal afterwards. Again the proposals are evaluated and then finally the contract is awarded.

In case of two stage, a preliminary qualification is required. But the envelope method is same as the single stage procedure.

Then comes the final stage which is tender approval. The process goes as following flowchart



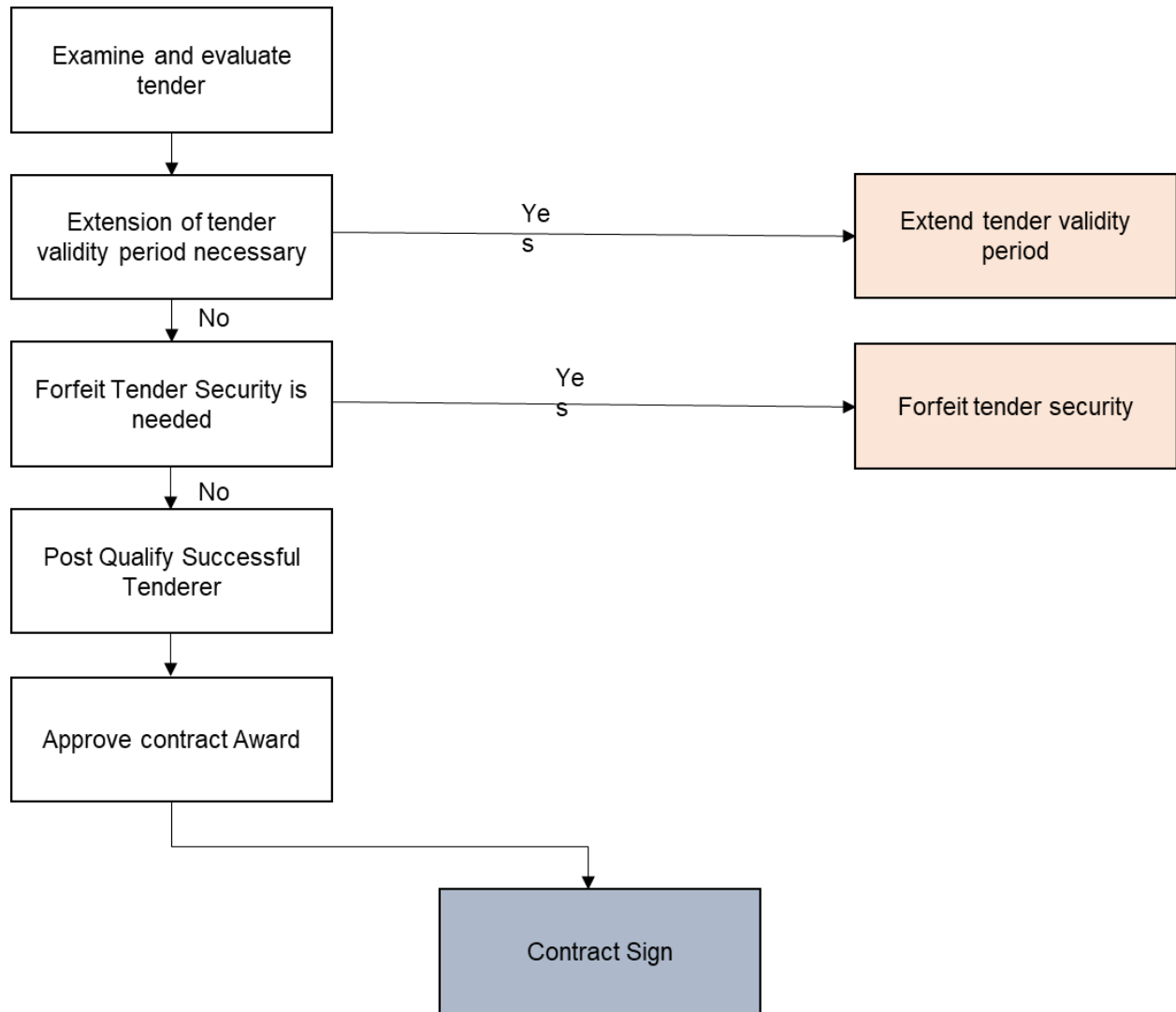


Fig 9: Tender evaluation and Approval

This whole tendering process is followed in both OTM (Open tendering method) and LTM (Limited tendering method).

## 4.6 Procurement Procedure

The Central Procurement Technical Unit (CPTU) in Bangladesh is responsible for overseeing the public procurement process in the country. To ensure openness, fairness, and efficiency, the procurement process adheres to a set of principles and processes. Here is an overview of the CPTU's procurement process:

1. **Planning:** The procuring organization (government agency) determines the need for commodities, services, or both and develops a procurement strategy. The project specifications, expected budget, and procurement method are all outlined in the plan.
2. **Tender Document Preparation:** The procuring entity creates detailed tender documents, such as the invitation for bids, bidder instructions, terms of reference, technical specifications, and evaluation criteria.
3. **Publication:** The tender notice, identifying the procurement opportunity, is published on the CPTU website and other relevant media sites. The notification contains project information, eligibility criteria, a bid submission deadline, and contact information.
4. **Bid Submission:** Interested bidders obtain tender papers and submit their proposals before the deadline. Bid security, financial statements, and technical proposals are needed documents that accompany bids.
5. **Bid Opening and Evaluation:** Bids are opened in front of bidders or their representatives. The bids are evaluated using predetermined criteria such as technical specs, pricing, experience, and prior performance. For complex projects, CPTU may additionally perform a prequalification process.
6. **Contract Award:** Following the evaluation, the purchasing entity awards the contract to the successful bidder who meets all of the conditions and offers the most competitive proposal. The procurement body and the preferred bidder sign the contract.
7. **Contract Implementation and Monitoring:** The procurement entity supervises contract execution to verify that the terms and conditions are followed. To track the project's execution, progress reports, quality control, and payment systems are established.

8. **Dispute Resolution:** CPTU provides a mechanism for dispute resolution through the Complaints Management System (CMS). Bidders or other stakeholders can file complaints related to the procurement process, and CPTU facilitates a fair and timely resolution.

This generalized process is followed under any kind of open tendering method. However there might be some slight changes in case of limited tendering method. I was taught OTM in details here in MAX Group. So the flowchart goes like this:

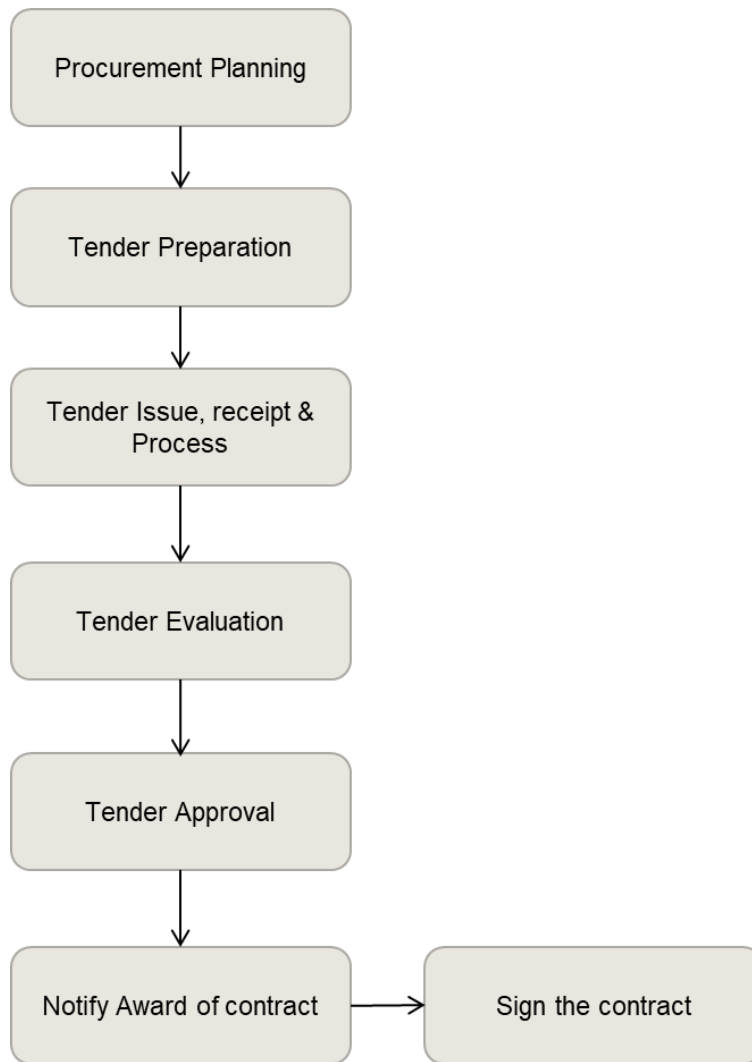


Fig 10: Procurement Process Flowchart

The whole tendering process is described in the previous agenda (4.5). So before the tendering process the procurement planning is needed. And both procurement plan and tendering process combined, creates the whole procurement process. Here is a in depth breakdown of planning.

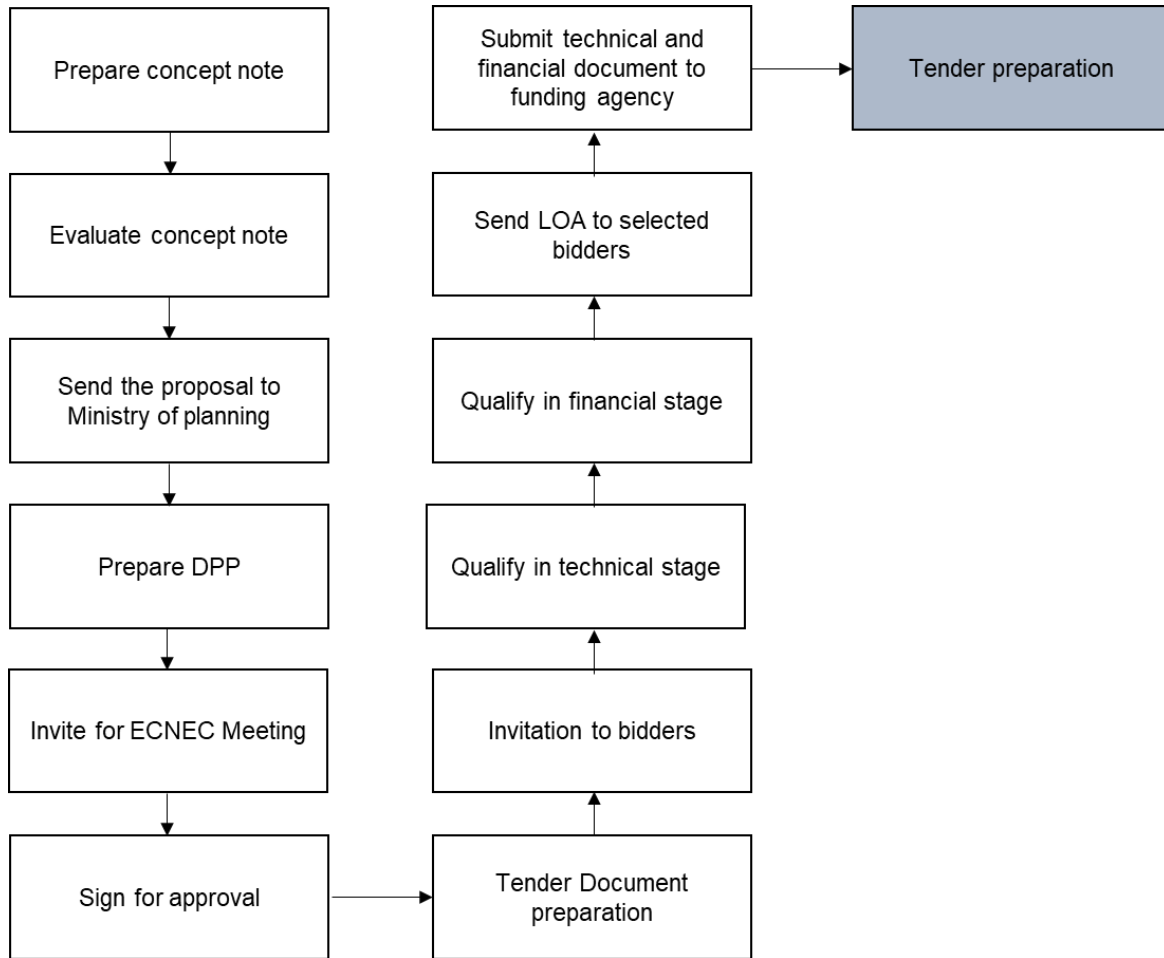


Fig 11: Procurement Plan

Here are some topics which I learned from my supervisor with actual documents and papers. Which are also very confidential so that I can not attach those here. Some topics I learned from supervisor regarding procurement process:

**DPM:** Direct procurement method (DPM) is a purchasing method where the buyer directly approaches a single supplier or vendor to acquire the required goods or services, without a competitive bidding process. In direct procurement, the buyer selects a specific supplier based on their past experience, reputation, quality, or price, without inviting other suppliers to submit bids. Direct procurement can be a quicker and

more efficient procurement method compared to other methods that require a competitive bidding process. However, it may also result in higher costs or a lack of competition.

**LOA:** Letter of acceptance is a formal document that a purchaser or buyer issues to the successful bidder after the completion of the tender process. This letter serves as an official notification that the purchaser has accepted the bid of the bidder, and the bidder has been awarded the contract. The letter of acceptance typically includes details such as

- Name of the successful bidder
- Name of the project
- Scope of work
- Contract value
- Start and end dates of the project
- Terms and conditions of the contract
- Obligations or requirements of the bidder.

Once the bidder receives the letter of acceptance, they are legally bound to fulfill the terms and conditions of the contract. If the bidder fails to fulfill their duties, the purchaser has the authority to terminate the contract.

**Funding Agency:** The funding agency provides funding for the project. Bangladesh receives both international and government financing. Both funding systems have their own set of rules and regulations.

1. **Government Funding:** When a government agency issues a tender, it frequently includes information on the project's funding. Bidders must guarantee that their proposals fit the government agency's unique funding requirements and criteria.

Bidders must meet specific criteria to be eligible for government funding, such as demonstrating financial stability, technical aptitude, and expertise in similar projects. Bidders must also give specific plans, budgets, and timeframes that show how they will complete the project within the constraints of the available financing.

Tender proposals are evaluated by government bodies based on a combination of technical excellence, financial feasibility, and social or economic impact. The agency will then choose the bid that best fits their needs and offers the best value for money.

2. **Foreign Funding:** Foreign funding can be a significant source of funding for developing countries and emerging economies, as it can provide much-needed financial resources and support for important projects that may not be feasible with domestic resources alone.

When a foreign funding agency provides funding for a project, they may have specific requirements and criteria for the project. Bidders must ensure that their proposals meet these requirements and criteria to be eligible for funding.

Foreign funding can also have implications for project implementation, as it may require coordination and collaboration with international organizations or foreign partners. Bidders must be prepared to work with these partners and follow their guidelines and procedures.

## 4.7 Construction Company Analysis

At the beginning of internship I was introduced to some top tier companies in infrastructure industry both in Bangladesh and overseas. So I was given the opportunity to analyze some of those companies and their competencies. I prepared various data sheets regarding so many factors so that I get a clear picture of the competitiveness in the market. In Bangladesh I learned about some top competitors of Max. Some of them are

1. Abdul Monem Construction Ltd.
2. Mir Akhter Hossain Ltd.
3. Spectra Engineers Limited
4. National Development Engineers Ltd. | NDE
5. Confidence Infrastructure Ltd.
6. Dienco Limited
7. Toma Construction & Co.Ltd.

The factors I considered for analysis are- Total Manpower, No. of Equipment's, No. of Engineers, Ongoing Project, Completed Projects. Then I prepared data sheet showing a comparison among them.

For overseas companies, our primary target companies were from China, Japan, Thailand, South Korea and Turkey. As most of the foreign companies that contributed in mega projects of Bangladesh are mostly of these countries; My analysis was confined in these countries only.

### **China construction industry:**

China construction industry is highly advanced both in terms of equipment and manpower. Their state construction companies highly experienced and have so many mega projects throughout the world. Some remarkable companies on which I did my research on are:

1. Longjian Road & Bridge Co., Ltd.
2. Henan Highway Engineering Group Co., Ltd.
3. Zhengzhou City Highway Engineering Corporation
4. Anhui Highway & Port Engineering Co.
5. Beijing Construction Engineering Group
6. Sichuan Road & Bridge (Group) Co., LTD
7. Shanghai Construction Group (SCG)
8. Shandong Highway Construction Group
9. JIANGSU EXPRESSWAY COMPANY LIMITED
10. XINJIANG BEIXIN ROAD & BRIDGE GROUP CO., LTD

The factors of analysis were total contracting revenue of the company, project name, contract value, project location, type of the contract.

### **Thailand Construction Industry:**

Thai construction industry is also highly experienced. I selected the companies on some sectors such as public infrastructure, highways and flyover, commercial buildings, industrial zone. The top construction companies I researched on are:

1. Thai Semcon

2. Christiani & Nielsen (Thai) PCL
3. AECOM
4. A.S. Associated Engineering Co. Ltd
5. Thai Obayashi

The same factors were mentioned here same as chinese companies.

### **Turkish Construction Industry:**

Turkish construction companies have major experience in suspension bridges. Bangladesh government is planning to construct cable stayed bridge. So bangladeshi construction companies must acquire the technologies and ideas from the overseas companies to successfully construct suspension bridge. However the top companies with major bridge experience are:

1. SP Singla Construction Pvt Ltd
2. IC İÇTAŞ İNŞAAT
3. Mega Yapi Insaat
4. Nurol Holding & Construction
5. Özaltın Holding
6. Yuksel Holding A.S.

The factors that were mentioned in the analysis: location, length, completion date, contract value.

In the analysis of all these companies I also collected their headoffice location, contact number and email of the business development team or personnel.

## **4.8 Qualification Criteria**

Qualification criteria is a measurement of select a company for joint venture or work as alliance. For that a company have to has some specific qualification and experience. I was given those requirements and then I had to match those criteria with the company experience and their work history.



Qualification Criteria	
<p>satisfactorily or substantially completed as a prime contractor (single entity or JV Member) between 1st January 2013 and Bid submission deadline. The contract must meet the following specification:</p> <ul style="list-style-type: none"> <li>•4 lane bridge/flyover/ elevated road construction</li> <li>•Minimum length of 12 kilometers</li> </ul>	Q1
<p>satisfactorily or substantially completed as a prime contractor (single entity or JV Member) between 1st January 2013 and Bid submission deadline. The contract must meet the following specification:</p> <ul style="list-style-type: none"> <li>•4 lane bridge/flyover/ elevated road construction</li> <li>•Minimum length of 5 kilometers</li> </ul>	Q2
<p>satisfactorily or substantially completed as a prime contractor (single entity or JV Member) between 1st January 2013 and Bid submission deadline. The contract must meet the following specification:</p> <ul style="list-style-type: none"> <li>•4 lane road construction</li> <li>•Minimum length of 4 kilometers</li> </ul>	Q3

According to the criteria Q1 is the most eligible to work with. Q2 and Q3 has less eligibility respectively. I sorted the companies of China, Thailand, Turkey based on the qualification in case of expressway.

### 4.9 Expressway project Analysis

Expressway is the most demandable and profitable projects for Max Infrastructure. They participated in most of the expressway projects. So to go for JV with the companies they have to research on companies with expressway experience. I researched on the mega expressway projects of China, thailand, turkey. Both elevated and non-elevated. With every details like- project location, span length, width, total length, contract value, completion date, type of contract, contact personnel etc.

## **Chapter 5: Analysis of Duties**

The purpose of this chapter is to evaluate the results of my three-month internship program. The analysis will encompass three primary areas: Company Level, Market Level, and Professional Level. In this chapter, I will be examining these three aspects, with a particular emphasis on comparing what I learned during my undergraduate program with what I observed during my internship.

## **5.1 Company level Analysis**

### **Highly Experienced Business development Team**

Max Group is managed by super influential personnel who have long term experience in this industry and they are very knowledgeable in terms of controlling and leading in the market. The board of directors are the key persons who are responsible for this success and their new plans and initiatives keep the company one step ahead. Recent new projects regarding environment safety and climate awareness is the issue that the executive directors and CEO are concerned about. If carbon trading project executes successfully then Max will be the first company in Bangladesh that has taken this initiative.

Besides new projects they are always working so hard to bring new construction projects which are highly advanced and completely new in our country. Also construction companies in Bangladesh are not very concerned about ERP. By leveraging the capabilities of the ERP system, MAX Group can optimize their operations, reduce costs, and stay competitive in the market.

### **Technically unskilled Employees**

Despite the fact that MAX Group employs cutting-edge ERP technology, its staff are lacking in this area. The ERP is not being used effectively by employees from the majority of critical projects. They have not received adequate training to become acquainted with the ERP system. Some of them do not even recognize the significance of this technology. While management is working hard to implement the ERP system throughout the company, project level employees are hesitant. Some employees use the ERP, but they frequently make mistakes due to a lack of knowledge. It might result in greater costs as a result of errors and inefficiencies, resulting in worse profitability. It can also cause project delays, which can lead to unsatisfied clients and harm the company's reputation. It also places a strain on other employees who must compensate for their colleagues' faults, resulting in lower morale and productivity. Finally, it limits the

company's ability to fully utilize the ERP system's capabilities, resulting in missed opportunities for optimization and growth.

## **5.2 Market Level Analysis**

### **Financial Performance**

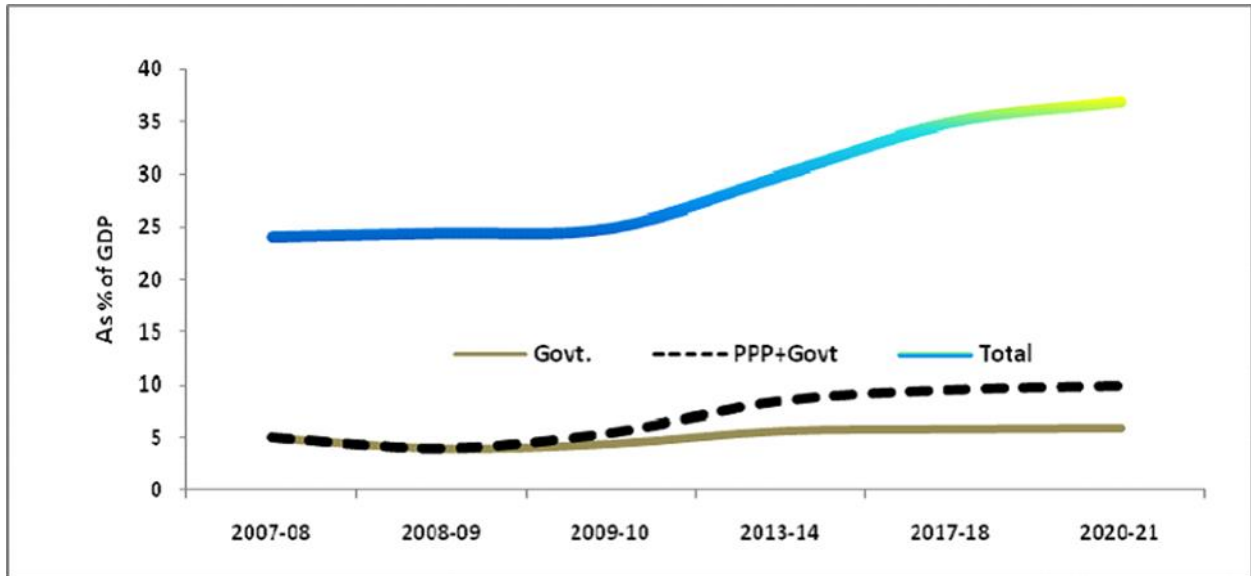
MAX Group's financial performance has been continuously improving throughout the years. The company's revenue for fiscal year 2020 was BDT 15.78 billion, a 25.9% increase over the previous year, according to financial documents. For the same period, the company's net profit after tax was BDT 1.78 billion, a 44.9% increase over the previous year. These numbers show that MAX Group is functioning well financially and expanding rapidly.

### **Market Share**

MAX Group has a significant market share in Bangladesh's building and infrastructure industries. In the country, the company has completed a number of large-scale projects, including power plants, roads, and railways. MAX Group's subsidiary, MAX Infrastructure Limited, is also active in real estate development. Several commercial and residential projects in prime locations across the country have been developed by the company. These characteristics help MAX Group maintain its strong market position in Bangladesh.

### **Growth Potential**

In terms of future growth possibilities, MAX Group sees a bright future. The building and infrastructure industries in Bangladesh are likely to expand in the future years as government investment in the sector increases. The country is also rapidly urbanizing, which is increasing demand for real estate development. Given its strong market position and industry expertise, MAX Group is well-positioned to capitalize on these opportunities.



### Construction Industry

Bangladesh has seen substantial expansion in the building industry in recent years. Infrastructure development has been promoted by the government as a strategy of attracting foreign investment and promoting economic growth. As a result, demand for construction and engineering services has increased, providing chances for companies like MAX Group to grow their operations and enhance their market share.

### Railway Sector

The railway sector is one area where MAX Group has a considerable influence. Bangladesh has made significant investments in developing and modernizing its railway infrastructure, and MAX Group has been involved in a number of key railway projects in the nation. For instance, the company has been working on the Padma Bridge train Link Project, which entails the construction of a new railway line to connect the Padma Bridge to the rest of the country's train network. MAX Group has also been involved in the construction of a new railway bridge across the Jamuna River, which when completed would be the longest railway bridge in Bangladesh.

## **Power Generation**

MAX Group also has a presence in the power generation industry. Bangladesh has been investing in increasing its power generation capacity in order to meet increased electrical demand. MAX Group has been involved in the development of various big power plant projects in the country, including the construction of a 450 MW combined cycle power plant in Bhola. MAX Group has invested in a number of renewable energy projects, such as wind and solar power facilities. The company is also involved in the construction of thermal power plants, which it plans to extend its engagement in in the future.

Bangladesh's entire market for infrastructure, electricity generation, and real estate is expected to grow in the next years, owing primarily to increased government investment. and private sector participation. This gives MAX Group with numerous opportunities to expand its operations and increase its market share.

The market, however, is riddled with problems, including as regulatory and legal limits, political insecurity, and competition from both domestic and international firms. In order to sustain market leadership, MAX Group will need to continue to innovate and alter its approach.

## **5.3 Professional Level Analysis**

The internship turned out to be easier than I had anticipated, particularly in terms of workload and dealing with my supervisor. HR and Admin were supportive in ensuring compliance with regulations, and they were considerate of my academic obligations. This experience taught me the importance of building strong relationships with colleagues, even during short-term internships. I am grateful to my academic supervisors for scheduling the course in a way that allowed us to gain valuable business experience while still in university, which will give us an advantage in the job market. I want to express my appreciation to my professors and institution for providing me with the opportunity to work in a real-world business setting. Through my three-month internship, I gained valuable insights about myself and my career path.

## **Relevance to Affiliation with Organizations/Companies**

MAX Group's relationship with many organizations and businesses is critical to its daily operations. As a government contractor for various types of projects, MAX must affiliate with various organizations ranging from the government to the international level. During my time at MAX Group, I've met a wide range of office stakeholders. MAX Group takes excellent care of them. For starters, it improves the company's reputation and credibility. Being linked with prominent organizations and corporations enhances MAX Group's brand image and increases its market visibility. As a result, the company can attract more clients and customers, resulting in higher income and growth.

Moreover, collaborating with other organizations and businesses allows MAX Group to gain access to new markets and opportunities. This allows the organization to grow and diversify its business portfolio. When MAX Group, for example, creates a partnership with a huge global firm, it has access to new markets and customers that it would not have been able to reach on its own.

Furthermore, affiliation with organizations and businesses provides MAX Group with valuable resources such as knowledge, expertise, and funding. MAX Group benefits from its partners' shared knowledge and skills, as well as access to their financial resources, by cooperating with other firms or organizations.

## **Professional Communication**

At MAX Group, professional communication is highly appreciated. The corporation emphasizes the need of clear and effective communication in all elements of the business, whether internal or external stakeholders. As an intern, I was encouraged to communicate with my supervisor and coworkers in a clear and effective manner. We held regular meetings to discuss our progress and handle any concerns that emerged. In addition, I attended training seminars on excellent communication abilities.

MAX Group prioritizes maintaining a positive image and developing strong relationships with clients, partners, and stakeholders in terms of external communication. A professional public relations staff controls all external communication, including media relations and stakeholder engagement, for the organization. I was given the opportunity to observe and participate in some of these communication activities, including drafting press releases and preparing presentations for clients.

As an intern at MAX Group, networking was critical to my professional development and learning. I was able to obtain significant insights into the company's culture, processes, and initiatives by establishing connections and relationships with my colleagues and managers.

Networking enabled me to gain access to information and resources that I would not have had otherwise. Conversations with coworkers provided me with information about new projects and initiatives, as well as best practices for completing duties and managing my time successfully. This enabled me to work more effectively and to deliver higher-quality results.

## **Networking**

Networking was essential to my professional development and learning as an intern at MAX Group. By establishing connections and relationships with my colleagues and managers, I was able to gain significant insights into the company's culture, processes, and initiatives.

I was able to acquire access to information and resources that I would not have had otherwise thanks to networking. Conversations with coworkers informed me about new projects and objectives, as well as best practices for completing tasks and managing my time effectively. This allowed me to work more efficiently and produce higher-quality outcomes.

Networking also assisted me in expanding my professional abilities and expertise. I was able to learn from more seasoned colleagues' skills and obtain useful insights into industry trends and practices by connecting with them. Furthermore, networking enabled me to receive feedback on my work and identify areas for improvement, which aided my professional growth and development.

Finally, networking assisted me in developing relationships that will be beneficial to me in the future. By forming strong bonds with my coworkers and supervisors, I've created a network of contacts to whom I can turn for advice, support, and potential job opportunities in the future.

## **Reporting and Observations**

Reporting and observation were critical components of my internship at MAX Group. As an intern, I was assigned many responsibilities and projects, and being able to properly report and observe allowed me to excel in those jobs.



My internship required a lot of reporting. During my time at MAX Group, I was required to submit progress reports, project reports, and presentations to my supervisor and other senior team members. These reports assisted me in keeping track of my progress and receiving feedback on my efforts. I was able to recognize my skills and weaknesses and improve them by evaluating the feedback.

Another important skill I learned throughout my internship was observation. I was continuously paying attention to the work environment, processes, and people around me. I was able to learn MAX Group's beliefs and ethics through seeing the work culture. This assisted me in aligning my job and conduct with the expectations of the firm.

Observation also assisted me in comprehending the job procedures at MAX Group. I was able to comprehend how different departments and teams interacted and coordinated with one another to attain their goals by witnessing how they worked. This helped me have a better knowledge of how the organization functions as a whole and how my job contributes to its success.

## **Chapter 6: Findings**

## **6.1 Recommendations**

### **Woman Empowerment**

At the MAX Group. The corporate headquarters has extremely few female staff. Only a few people work as part of a higher management team. Almost no one is on the mid or lower management team. Despite the fact that there are some outstanding female workers at the sites.

MAX Group should take steps to enhance the number of female employees in mid and lower management positions at the corporate office in order to empower women. This can be accomplished by actively recruiting and promoting qualified female candidates, as well as by fostering a work culture that is inclusive and supportive of women's career advancement. The organization can also give training and development opportunities for women to improve their skills and knowledge. MAX Group can also collaborate with other firms. External groups that promote women's empowerment and take part in events and initiatives that promote gender diversity and inclusion. MAX Group can build a more diverse and inclusive workplace that supports the professional growth and achievement of all workers, regardless of gender, by implementing these actions.

MAX Group can take steps to promote a culture of inclusivity and diversity at the corporate office in addition to implementing policies and initiatives for women's empowerment. This can be accomplished by providing training and workshops to all employees, not just management, on unconscious bias, gender sensitivity, diversity, and inclusion. The organization can also encourage the development of employee resource groups for women and other underrepresented groups, where employees can assist one another and raise awareness about key topics. MAX Group can attract and retain a more diverse workforce by establishing an inclusive and varied culture, which will ultimately lead to greater business outcomes.

## **Employee Satisfaction**

Employee happiness is an important part of every firm since it directly affects productivity and performance. There are various tips that might be adopted at MAX Group to boost employee happiness. Here are some suggestions for enhancing employee happiness at MAX Group:

1. Promote a positive work culture: MAX Group should strive to create a welcoming, helpful, and collaborative work environment. This can be achieved through cultivating an open, transparent, and varied society.
2. Provide opportunities for professional development: Employees should be provided with opportunities for professional development and improvement, such as training programs, workshops, and mentorship programs. As a result, employees may become more interested and invested in their work.
3. Recognize and reward excellent performance: The MAX Group should develop a method for recognizing and rewarding employees who go above and beyond their duties. This includes monetary incentives, promotions, and other forms of recognition.
4. Improve communication: Employees must communicate in order to build trust and teamwork. MAX Group should have regular meetings, feedback sessions, and other forms of communication to ensure that staff feel heard and valued.
5. Enhance work-life balance: Work-life balance is an important factor in employee satisfaction. Work-life balance policies and programs, such as flexible work arrangements, remote work options, and wellness programs, should be implemented by MAX Group.
6. Improve benefit packages: MAX Group should consider upgrading its employee benefit packages, which include health insurance, retirement plans, and vacation policies. This can help attract and retain top talent while also displaying the company's gratitude to its employees.

## **6.2 Conclusions**

Finally, my internship with MAX Group was both instructive and beneficial. I became acquainted with the company's operations, culture, and working environment. The company's strong market position, varied business portfolio, and commitment to sustainability all impressive. However, some things could be done better, such as increasing employee satisfaction, empowering women in the workplace, and launching new projects.

I hope that my suggestions for these areas would help MAX Group improve its operations and work environment, allowing it to maintain its market leadership. Overall, my time at MAX Group has been an excellent learning experience, and I am grateful for the opportunity to work for a company that values employee development and advancement.

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## **Annexure**