

Sonargaon University (SU)
Dhaka, Bangladesh

Thesis Paper

on

Supply Chain Management Practices in Bangladesh:

A Case Study on Meghna Group of Industries (MGI)

Submitted by:
Md. Abdullah Al Mamun
ID: MSCM2201025004

Program: MBA in of Supply Chain Management
Major: Supply Chain Management (SCM)
Semester: Summer-2023

Submitted to:
Department of Business Administration
Sonargaon University (SU)
Dhaka-1215

Date of Submission
Date: 5th September, 2023

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Supervised by:
Md. Rasel Hawlader
Lecturer
Department of Business Administration
Sonargaon University (SU)

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Date: 5th September, 2023

Letter of Transmittal

Date: 5th September, 2023

To,
Md. Rasel Hawlader
Lecturer
Department of Business Administration
Sonargaon University, Dhaka

Subject: Submission of Thesis Paper on "Supply Chain Management Practices in Bangladesh: A Case Study on Meghna Group of Industries".

Dear Sir,

This is my pleasure to present my thesis paper entitled **"Supply Chain Management Practices in Bangladesh: A Case Study on Meghna Group of Industries."**

It is my pleasure to inform you that I have already finished my thesis paper in a reputed organization in **Meghna Group of Industries (MGI)**. It was an interesting opportunity for me. The main purpose of this report is to learn about importance of supply chain management in FMCG sector in Bangladesh. Supply chain management of FMCG sector is very complicated, because of abnormal demand at unexpected period. I have tried my best to prepare this report. This report has been prepared based on the practical experiences and different ideas obtained during working at Meghna Group of Industries (MGI).

Therefore I sincerely hope that you will appreciate my effort and I shall be grateful if my report is accepted for the appropriate purpose.

Yours Sincerely,

_____
Md. Abdullah Al Mamun.
ID: MSCM2201025004.
Department of Business Administration.
Sonargaon University (SU).

Letter of Authorization

I, Mr. Md. Rasel Hawlader, Lecturer, Faculty of Business Administration, Sonargaon University (SU) hereby certify that the Thesis work entitled as **"Supply Chain Management Practices in Bangladesh: A Case Study on Meghna Group of Industries."** has been prepared by Md. Abdullah Al Mamun, ID: MSCM2201025004, Department of Business Administration, Sonargaon University (SU) and submitted as a requirement for the partial fulfillment for the degree of the Master of Supply Chain Management (MSCM) with major in SCM. To the best of my knowledge, the above-mentioned work has been conducted by the student himself. Any option and/or suggestion made in this study are entirely that of the author of this thesis paper. The report is an original work and prepared as a partial requirement of the degree the Master of Supply Chain Management (MSCM).

_____

Md. Rasel Hawlader
Lecturer
Department of Business Administration
Sonargaon University (SU)

Student's Declaration

This is Md. Abdullah Al Mamun, a student of Master of Supply Chain Management (MSCM) , ID: MSCM220102504 from Sonargaon University (SU) would like to solemnly declaration here that this Thesis Paper on **"Supply Chain Management Practices in Bangladesh: A Case Study on Meghna Group of Industries."** has been authentically prepared by me under supervisor of Md. Rasel Hawlader, Lecturer & Coordinator, Department of Business Administration, Sonargaon University.

I didn't breach any copyright act internationally. I am further declaring that I did not submit this report anywhere for awarding any kind of degree or certificate.

Sincerely Yours,

_____

Md. Abdullah Al Mamun
ID: MSCM2201025004
Major: (SCM)
Semester: Summer 2023
Department of Business Administration
Sonargaon University (SU)

Acknowledgement

At first I would like to thank my honorable thesis paper supervisor from Sonargaon University, Md. Rasel Hawlader, Lecturer & Coordinator, faculty of Business Administration for providing me such an opportunity to prepare an Thesis Paper on **"Supply Chain Management Practices in Bangladesh: A Case Study on Meghna Group of Industries"** .

I would like to place my gratitude to Rashedul Haque, Head of Supply Chain, Md. Rabiul Hossain, DM (SCM) and Khairul Islam DM (SCM) of Meghna Group of Industries, enable me to complete my thesis paper in their esteemed organization.

During my preparation of the project work I have come to very supportive touch of different individuals (respondents from Meghna Group of Industries) & friends who lend their ideas, time & caring guidance to amplify the report's contents. I want to convey my heartiest gratitude to them for their valuable responses.

Executive Summary

Meghna Group of Industries (MGI) is a one of the largest Bangladeshi industrial conglomerates. Fast moving consumer goods (FMCG) division is one of the biggest portion revenue earner (2000 crore per year) of Meghna Group of Industries (MGI), which contributes to growth in national economy of Bangladesh. To bring efficiency and effectiveness MGI established supply chain management department in 2011. During that period supply chain management department only control distribution. MGI represents a global enterprise and brand that houses more than 50,000 employees, 6,300 distributors and 15,000 suppliers under its umbrella and has an annual turnover of approximately $2.8 billion. From 2013 procurement, inventory, production, planning, distribution, depot management administer by supply chain management department, to minimize the cost and maximize the profit. The secret to the success and vast expansion of MGI has been diversification. The group has entered a broad array of different markets and industries including Fast Moving Consumer Goods (FMCG), building materials, pulp and paper, LPG, feeds, fiber, power plants, shipping, seeds crushing, chemicals, ship building, dockyard, securities, insurance, media and aviation. The product range of MGI today is truly impressive and the conglomerate markets most of its products under the recognizable brand names of "Fresh", "No.1", "Actifit", "Pure" and "Meghnacem Deluxe". The result of this level of reach and diversification has been that one in every two households in Bangladesh uses MGI products. Internationally MGI has a substantial presence in the Middle East, Southeast Asia, Europe, South Africa, and North and South America. As a result of this relentless process of expansion MGI has become a powerful player within Bangladesh and has become the largest investor in relation to industrial development in Bangladesh over the last few years. MGI became the first company in Bangladesh to establish a private economic zone known as the "Meghna Economic Zone", which has since been followed by the creation of two further economic zones, which are named “Meghna Industrial Economic Zone” and “Cumilla Economic Zone” respectively. The conglomerate has expanded even further since this point, with an unprecedented investment of $451 million in 2020 that has erected nine new industrial units within its multiple economic zones. Throughout this process the unwavering commitment of its visionary leader, Mostafa Kamal, has been pivotal for both the conglomerate and the Bangladeshi Economy. Renowned for his entrepreneurial expertise and patriotism, Mostafa Kamal has played a key role in the development of industry, healthcare, education, sports and social welfare in Bangladesh. The integrity and dedication towards the group that he has played a vital part in the overall success of MGI. To achieve its vision MGI gradually change their traditional system to upgrading system. Though it is quite difficult to adapt the new system among the employee, they should train them in where they are lack behind. In spite of lack behind in few areas, because of SCM they able to provide superior value to their customer. SCM department did tremendous performance during the unstable political situation. As an example for the period of hartal, strike they use rail and cargo trailer to ensure smooth delivery process and instead of day they deliver product at night to the party end from depot in 2013. Throughout the Bangladesh they established 11 depots under SCM department and increase 67 % by value through increase sales order. In some cases if they able to adapt with the change in SCM, then MGI SCM will be the model for Bangladeshi FMCG Industry.

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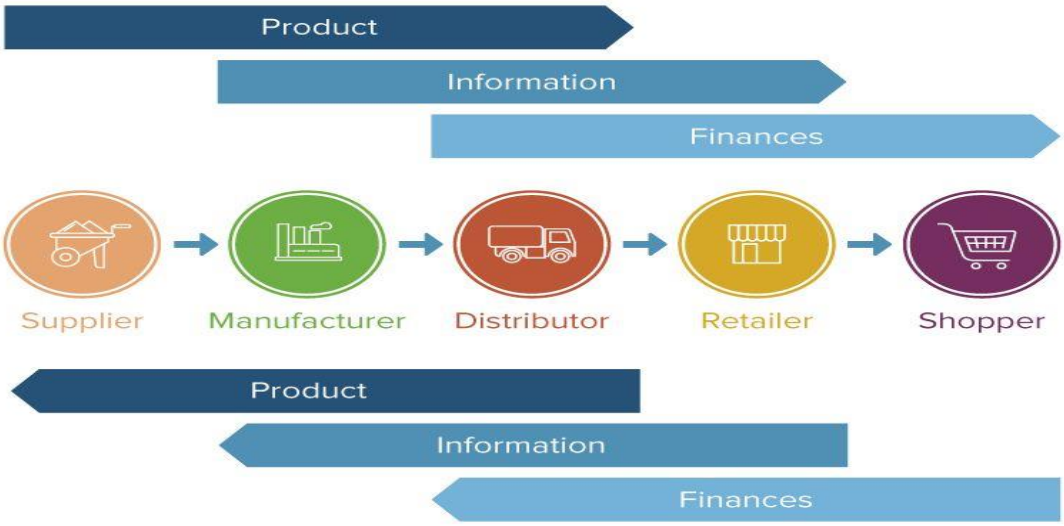
Chapter 01

Introduction

1.1 Introduction

A supply chain is a dynamic management system where involves the constant flow of information, products and funds between different stages. In this stages not only included the manufacturer and suppliers, but also included transporters, warehouses and retailers who are directly or indirectly related in fulfilling the customer requirement. The objective of every supply chain is to maximize the overall value of all stages. Basically supply chain performance is evaluated on the basis of qualitative measure (such as customer satisfaction and product quality) and quantitative measures (such as order-to-delivery lead time, supply chain response time, flexibility, resource utilization, delivery performance etc.).The quantitative performance is directly related with supply chain network. Effective supply chain network is viewed as the driver of reductions in lead times and costs, and improvements in product quality and responsiveness. Despite its benefits structuring supply chain network is a complex decision-making process. The typical inputs to such a process consists of a set of customer zones to serve, products to be manufactured and distributed, demand projections for the different customer zones, information about future. Supply chain management is a network of mechanism at organizations that are involved, through upstream and downstream linkages in the different working processes and activities that process value in the form of products and services in the hand of the ultimate consumer. Actually maintain a chain of command to be a successful supply chains can significantly benefit the competitiveness of the firms. Thus, the supply chain management (SCM) is a crucial problem in the process industry. This thesis aims to identify some major key problems in the processing industry SCM by developing optimization-based models, approaches and solution procedures using analytical or mathematical programming techniques for better future of SCM at any organization handle easily and earn expected gain in the company.

Supply chain management may contain all activities that transform raw materials to final products and deliver them to the customers. A number of stages are involved in a supply chain, typically including suppliers, manufacturers, warehouses, distribution centers, retailers, and customers.



1.2 Objectives of the Study

Broad Objective

- Process at **"Supply Chain Management Practices in Meghna Group of Industries (MGI)".**

Specific Objective

- Logistics, Purchase process, supply chain, distribution, marketing and contingency theory apply in supply chain management (SCM).
- Basic operation process and performance for treatment and perceive information disclosure as a loss of power.
- Companies is not seek to achieve cost reductions or profit improvement at the expense of their supply chain partners.
- Chain level-supplier's supplier, customer's customer.
- Effective supply chain integration requires effective implementation.
- Time and space variables making complexity of SCM.
- If willingness collaborate each other instead of isn't possible good chain.

1.3 Methodology of the Study

Primary information: Primary information is directly collect from to Rashedul Haque, Head of Supply Chain, Md. Rabiul Hossain, DM (SCM), Khairul Islam DM (SCM), Rajib Kumar Sha GM (AC) HO, Mahmuda Lucky Manager (AC) HO, Solaiman Mia Manager (Inventory), Based Jony HOD (Delivery) MCIL, company training, directly supplier visiting information and my cooperative colleague of supply chain department.

Secondary information: Secondary data are collected from website of Meghna Group of Industries (MGI) www.mgi.org , different reports on Meghna Group of Industries (MGI), and others internet, newspaper, magazine etc.

1.4 Scope of the Study

The study is concerned with the description of supply chain management as a responsible strategic for industrial company. Each industrial company must have supply chain manager for operates overall that at its headquarters. Specifically the researcher will collect data to establish why supply chain manager is a key for industrial company, how supply chain manager handle the all activities of their company, the challenges faced a supply chain manager as well as the

others department concern manager. The data sources mainly primary from questionnaires and secondary from company annual reports and internet. The researcher may face problem from the respondents who may not be willing to reveal information may be due to lack of trust and assumed lack of confidentiality. The respondents may feel they are going against the organizations rules and ethics. But they will be reassured that the information is needed for research purpose only. The researcher may experience constraints of time to carry out the research.

1.5 Limitations of the Study

During the thesis making time I face some Complexity which is:

- Time constraints of the semester require making a research but less time.
- May be ideal for an ethnographic study.
- Data collected from different sorts of sources.
- Moving around & waiting for Data. Etc.

So there may be some type of errors. But I am trying to collect the best of data from different resources.

Chapter 02
Profile of the Organization

2.1 Massage from Chairman & Managing Director

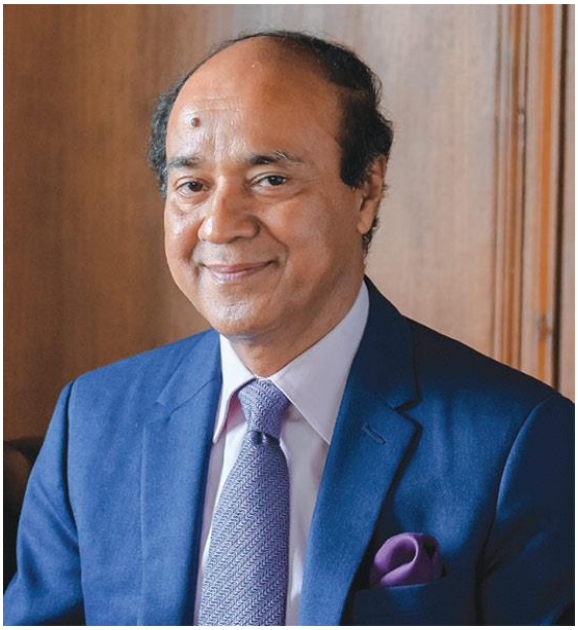
To our esteemed friends, patrons and business associates,

Since its inception, Meghna Group of Industries (MGI) has been working towards delivering various products in the market, keeping in line with the growing economy. Our strategy is to create an industrial group, which is active in the production sector and acts as a catalyst in the country's economic and social development.

The brand Fresh, under which most of our products are marketed, has been recognized as a symbol of trust and quality; we strive to streamline our operations in line with that promise. By having the experts in the field as our colleagues and deploying the most advanced machineries, we want to harness the potential of the people, raw materials and technology to support the future need of the country as well as expand in the international market.

Bangladesh is a country with robust growth fuelled by its private sector. Meghna Group of Industries takes immense pride in playing its role in the form of creating employment for about 50,000 employees in its business with a few thousands more in the ancillary businesses. Also, we are honored to put the country in the international business forum through our achievements of various international quality and trade awards.

I would like to take this opportunity to thank my colleagues, loyal patrons and business partners for their support throughout and expect that this extends in the future as well. We hope to continue our expansion and diversification leveraging our knowledge and expertise. It is the people who deliver these and enable us to evolve and grow sustainably with confidence.



Mostafa Kamal.

Chairman & Managing Director

2.2 Overview of Meghna Group of Industries

Meghna Group of Industries (MGI) is one of the biggest & leading conglomerates of Bangladesh. With a turnover of USD 2 billion & asset of USD 1 billion, MGI is currently operating in 32 companies, 30 Industries with more than 15000 employees, 3000 distributors & 1000 suppliers under its umbrella. Meghna Group of Industries has wide range of consumer goods under the umbrella brand Fresh. Fresh symbolizes freshness, purity, quality and trust. Fresh is committed to quality compliance and serving customers at affordable price.

Products under the 'Fresh' Brand are - Full Cream Milk Powder, Soyabean Oil, Mineral Water, Sugar, Flour, Spices (Chili, Turmeric, Coriander and Cumin Powder), Tea, Iodized Salt, Palm Oil, Mustard Oil, Cement and Feeds.

2.3 Brief Profile of Meghna Group of Industries

The full name	**:**	Meghna Group of Industries (MGI).
Head office	**:**	Fresh Villa, House-15, Road-34, Gulshan-1, Dhaka-1212.
Industrial Units	**:**	52 & more to come
Business partners	**:**	6,650 plus
Suppliers	**:**	15,000 plus
Employees	**:**	50,000+ (Professionals, Skilled, Semi-Skilled) and casual labours
Brands	**:**	Fresh, Super Fresh, Pure, No.1
Products	**:**	Consumer goods, Ceramics (Tiles), Cement, Chemical, Power, Fiber, Pulp & Paper, Feeds, Steel, Real Estate, Securities and Media.
Export Market	**:**	35+ Countries like-(India, Bhutan, Nepal, UAE, Kuwait, Singapore, Malaysia, Hong Kong, Vietnam, UK, USA,)
Logistics & Services	**:**	Oceangoing Vessel-02, Oil Tanker-15, Lighter-31, Covered Van/Bus/Truck/Pickup-550, Air Craft-02.

2.4 History

1970s

Meghna Group traces its origins to *Kamal Trading Company*, established in 1976 by Mostafa Kamal. But early in the business, poor quality products were seized by customs, jeopardizing his first venture into small-scale imports.



1980s

The company has encountered fluctuations and challenges throughout its journey, experiencing both periods of success and setbacks. But in 1989, The Company expanded its business by establishing a subsidiary company *Meghna Vegetable Oil Industries Limited*. Also in 1980s, the company became "Meghna Group" as a Group of Companies.

1990s

In May 1996, the Group made its foray into the financial sector by establishing *Bangladesh National Insurance Company Limited (BNIC)*, with Mostafa Kamal assuming the position of chairman.

In 1999, *Meghna Group* established it's another subsidiary company to manufacture small bags, *United Fibre Industries Limited*.

2000s

In 2001, Meghna Group established *United Feeds Limited* to produce poultry feed.

In 2002, Meghna Group established an export-oriented WPP bag manufacturing company *Tanveer Polymer Industries Limited*. To further enhance their Bag manufacturing capabilities, the group added a new plant in 2009, *Global AD Star Bag Industries Limited*. The group entered into the CNG and Chemical business and established *Everest CNG Refueling & Conversion Limited* & *Tasnim Chemical Complex Limited*.

2010s

In 2011, **Meghna Group** founded *Meghna Aviation Limited* as a helicopter rental service and owns four helicopters.

In June 2013, Mr. Kamal bought *Ekattor TV*'s 50% of shares from its founder Mozammel Hossain and entered into the News media business by holding the ownership under *Meghna Group*. Later the Channel recognized as the fifth biggest publisher of fake news in Bangladesh by Rumor Scanner Bangladesh, a fact-checking organization.

In 2016, Meghna Group planned to build a PVC factory in the country's first private economic zone, ***Meghna Economic Zone***.

In 2017, The Group launched ***Sonargaon Steel Fabricate Limited***.

In March 2018, Meghna Group announced an investment of 300 million USD in the *Meghnaghat Economic Zone* to build eight new manufacturing units. At the June of this year, ***Meghna Sugar Refinery Limited***, a sister concern of the Group received an 82 million USD loan from a consortium of German Development Finance Institution, FMO, Oesterreichische Entwicklungs bank AG, and the Islamic Corporation for the Development of the Private Sector. Its Factory has 3000 tones sugar refine capacity per day.

2020s

In March 2021, The Meghna Group of Industries entered the shipping business by launching two oceangoing vessels, *MV Meghna Princess* and *MV Meghna Adventure*, with a carrying capacity of 62,500 tonnes each, further expanding their fleet to a total of eight vessels.

In the August of this year, the Group also entered the ceramic business with the brand *Fresh Ceramics* under *Meghna Ceramic Industries Limited*. The group invested around 500 crore taka in building its manufacturing unit at Narayanganj District.

In April 2022, Meghna Group initiated to build of its third economic zone*Cumilla Economic Zone* with an investment of 1.2 billion BDT(1200 Crore taka) in 350 acres of land.

The group also started construction for its manufacturing unit for rice mill and rice bran oil plant at Bogra District under one of its sister concern, *Tanveer Foods Limited* in this year. And runs its business by storing 2000 metric tons of paddy with its under-construction manufacturing unit. Thus, the foods were seized by the Directorate General of Food at the end of this year.

Its ceramic company *Meghna Ceramic Industries Limited* became the member of *Bangladesh Ceramic Manufacturers & Exporters Association (BCMEA)* at the mid of August of this year.

In January 2023, Meghna Group plans to establish another rice mill at Naogaon District with an investment of 7 billion BDT (700 crores Taka). Later in March, *Tanveer Foods Limited (TFL)* got an investment of 35 million USD from International Finance Corporation (IFC).

In 2023, MGI launched four new oceangoing vessels *MV Meghna Victory*, *MV Meghna Prestige*, *MV Meghna Hope* and *MV Meghna Progress*, with a carrying capacity of 66000 tonnes each, further expanding their fleet to a total of twenty-two vessels.

2.5 Corporate Vision, Mission, and Values

Vision:

"To be Bangladesh's most admired and progressive global conglomerate."

We are passionately creating sustainable economic value for our country and stakeholders by contributing to the industrial development of the nation and fundamental requirements of our consumers.

Mission

"Delighting our customers and maximizing value by innovative solutions, inspired employees, adaptation of technological advancements and living in harmony with environment."

Values

MGI pays attention to the safety of people and products, acts pro-socially and is environmentally friendly. MGI is sensitive to cultural differences, treats social and commercial partners with respect and facilities the development of its partners.



2.6 FMCG Products & services

Fresh refined sugar



Fresh refined sugar is produced without any human interference using the most modernized process and state-of-the-art technology which guarantee its purity. Fresh refined sugar is packed in approved food graded pack with anti-wet process to maintain the cleanliness and clarity inside.

Super Fresh soya bean oil and super pure vegetable oil



It follows 3 steps of refining process-Perfect Degumming & Neutralization, Balanced De-colorization and Five steps Deodorization to ensure right ratio of Omega 3 & 6 and intact Beta-carotene in Soya bean Oil.

Fresh mustard oil



Surma Mustard Oil Mills Limited produces the finest Mustard Oil and Mustard Oil Cake under the brand name of Fresh. Fresh Mustard Oil is produced from world's finest & best quality mustard seeds and purified properly in an automatic plant. The legacy of this brand is to provide its great pungency & natural taste to the consumers. Also it connotes the heritage of our Bengali culture.

Fresh atta, Fresh maida & Fresh suji



Fresh Atta, Fresh Maida & Fresh Suji offers the best quality and taste. The brand carefully selects best quality wheat. It uses multi step cleaning process and computerized Bhuler milling technology to keep nutritional goodness intact.

Fresh deshi mushur dal, Fresh anchor dal



resh Dal offers the best quality and taste. The Lentils are majorly collected from various local sources, directly from farmers. To ensure best quality the factory uses Optical ColourSortex Z+ machine from Switzerland. Fresh Dal is considered to be the best quality dal of the country.

Fresh full cream milk powder, super Pure full cream milk powder



Fresh full cream milk powder provides the essential energy and nutrition for kid's and adult's intelligence, growth and strong health. Its choline helps in brain development, its protein, calcium, potassium, phosphorus aids in better growth and finally vitamin A, B, D and Zinc helps to build better immune system. These three nutrients allow your kids to become invincible.

No.1 sweetened condensed filed milk



Tasnim Condensed Milk Limited is the largest condensed milk factory in Bangladesh with the most modern hi-tech and automatic process technology. No. 1 Sweetened Condensed Filled Milk is made in this factory by using quality milk powder, refined cane sugar, purified fat, lactose, non-fat milk solids & UV treated water. No.1 Sweetened Condensed Filled Milk is homogenized, pasteurized and flash cooled to guarantee the best quality SCFM with smooth texture and complete nutrition.

Fresh super premium salt



Fresh Super Premium Salt is produced by using the combination of Switzerland's World Latest Technology and Vacuum Evaporation System which can remove all impurities and ensures a natural balance of all minerals like Sodium Chloride, Iodine, Calcium and Magnesium. As a result it helps to create balanced electrolytes, activate nerve function and carries the nutrients to reach every cell within our body. Its balanced Iodine also helps to promote brain development and improve immune system.

Super Fresh drinking water, No.1 drinking water



Super Fresh Drinking Water is popular and the market leader among the drinking water brands in Bangladesh. It is clear, transparent, free from microorganisms and refined in seven stage of purification process as De-Iron, Pre-Ozone, De-Odor, Softening, Reverse Osmosis, Ultraviolet Treatment and Ozonation. Hygiene practice is maintained in every step of our refining process. So, Super Fresh Drinking Water is safest, reenergizing, refreshing, trendy and suitable for human body. In February, 2013, a new brand of water "No.1 Drinking Water" also was introduced to the market to cater the popular segment.

Fresh premium tea, Fresh danedar tea, Fresh dust tea, No-1 leaf tea, No-1 strong tea



Fresh tea is the best Tea blend of the country with the best raw tea carefully chosen from the best gardens of Bangladesh. Fresh tea has great strength, mouth fullness & taste. Along with bright liquor, attractive colour and natural flavour it gives the best Freshness.

Fresh spice



To spice up our daily life with good taste and add a healthy punch to all our breakfast, lunch and dinner; Spices have become essential. With latest grinding technology and a modern, hygienic manufacturing process, Fresh spices has been able to create a strong foothold in consumer mind. For its obsession with quality management, spices with international standards are also being exported to several countries.

And Many More







2.7 Corporate social responsibilities (CSR)

The founder of Meghna Group of Industries, Mr. Mostafa Kamal who himself started his voyage with a quest for doing something for the people and the country is involved himself with different sectors. Corporate Social Responsibility is thus the ultimate form of corporate self-regulation integrated into MGI business model. MGI is equally concerned with the welfare of its employees. Few of his contributions are:

Industrial park of MGI

Industrial park of MGI located at factory complex, Meghna ghat, Naryanganj. The objective of industrial park of MGI is not only for industrial development, but also to keep environment pollution free. Because of industrial park employee and worker get healthy working environment.

Education

MGI care for education and contribute to educate people in Bangladesh by establishing school and college. Mostafa kamal, he is the founder and chairman of Al-Haj Noor Miah Degree College, Mostafa Kamal High School, Al-Haj Ayesha Noor Welfare Foundation etc in chauddagram.

Relief and rehabilitation

Meghna Group of Industries (MGI) started its journey with a quest for doing something for the people and the country. MGI cares for and contributes to its surroundings through Corporate Social Responsibility.

Many hospitals including Central Hospital Limited, The Barakah General Hospital are sponsored by the Chairman and Managing director of MGI, Mr. Mostafa Kamal. He also patrons many schools, colleges, and madrasahs including Al-Haj Noor Miah Degree College, Mostafa Kamal High School, Al-Haj Ayesha Noor Welfare Foundation, Kankapaith Madrasah and Al-Haj Ayesha Noor Mohila Dakhil Madrasah. He is also the founder and member of the Board of Governors, The People's University of Bangladesh and Foundation for People's Education.

MGI assisted 5 flood-affected districts in 2007 and also donated to the Honorable Chief Adviser's Relief Fund for Sidr victims in 2007. In 2015, MGI donated 9,000 bottles of Fresh Drinking Water and 4,800 kg of Fresh Flour for the Nepal earthquake victims. Moreover, Mr. Mostafa Kamal also constructed 44 low-cost houses for poor, homeless and distressed people in local areas.

In 2018, MGI launched a baby care zone at the departure lounge of Hazrat Shahjalal International Airport in Dhaka. Such a zone, a first of its kind in an airport of the country, eases the stress of passengers, especially the mothers traveling with toddlers and young children.

To provide better educational opportunities for the underprivileged students, MGI donated 25 lac taka to Police Academy KG School Kollyan Fund as a student scholarship at Bangladesh Police Academy, Sardah in January 2020.

To fight against the novel Coronavirus, MGI donated 5 Crore taka to the Prime Minister's Relief Fund as well as 35,000 packs of essential foods to the people who need it the most. MGI also handed over 15,000 masks to the Rapid Action Battalion (RAB) to be used by their officials and 2,000 bags of essential foods that were to be distributed to the people with the help of the RAB.



Assistance of flood affected districts



Constructed low-cost houses for poor, homeless and distress people in local areas

MGI DONATES TO PRIME MINISTER'S COVID-19 RELIEF FUND



Meghna Group of Industries (MGI) has donated to the honorable Prime Minister Sheikh Hasina's COVID-19 Relief and House Construction Fund by Private Finance. The fund will help the people affected financially by COVID-19 and for the house construction of the poor.

2.8 SWOT analysis of MGI Team

The SWOT analysis is a strategic tool that is used by researchers as well as businesses for the identification of various internal capabilities as well as shortcomings. The MGI Team uses the SWOT analysis to identify internal strengths and weaknesses, as well as external opportunities and threats (Stead & Stead, 2014). This is then used for assessing and reviewing how the internal capacities of the organization, such as the MGI Team, can be used and organized for optimally exploiting the external opportunities, as well as mitigating away the risks and threats (Park, 2020).

2.8.1 STRENGTHS

Strengths refer to the internal capabilities and factors that the MGI Team to excel, exploit resources optimally, and improve performance. Strengths also help the MGI Team maintain its differentiation in the industry as well as its competitiveness. Some of the strengths enjoyed by the MGI Team include:

A. Innovation

The MGI Team has a high focus on innovation. The MGI Team makes use of its strong facilities and trained employees, as well as structured NPD processes to gain first mover advantage in the market through innovation (Kim, 2002).

B. Research and development

The MGI Team continually invests in research and development. The MGI Team conducts market as well as consumer research to identify new buyer habits and purchasing trends, as well as consumption habits. This enables the company to tailor its marketing communications accordingly, as well as identify potential gaps in the market for new product development.

C. Proactive to consumer trends and market behavior

With strong research and development facilities, the MGI Team is able to predict future consumer and market trends. As a result of this pro activeness, the MGI Team is able to develop multiple contingency plans. This, in turn, facilitates strategic planning and decision-making, as well as strategic implementation for the company.

D. Adaptive towards change

The MGI Team is increasingly flexible and adaptive to change. These include not only administrative and structural changes, but also strategic changes. Through being adaptive to change, the MGI Team is able to quickly respond to the changing external business factors and environmental variants – allowing the MGI Team to maintain its competitiveness and leadership position (DuBrin, 2013).

E. High access to market and consumer data

In addition to consumer and market research, the MGI Team has also collaborated with other research firms and agencies. As a result of this, the MGI Team has quick access to intensive market and consumer data, which helps it in making informed decisions.



"National Export Trophy" (Gold Medal) Award for 2010-11 FY for outstanding performance in export trade.



"Best Brand Award Bangladesh" 2013 organized by Bangladesh Brand Forum in association with Millward Brown

F. High rate of new idea generation and new product development

The MGI Team's focus on innovation and business development has led the leadership to emphasize on new idea generation and new product development processes. The MGI Team supports a separate business unit for new idea generation and NPD processes to facilitate innovation.

G. Increased usage of automation

The MGI Team makes use of advanced technology. The MGI Team has increasingly made use of automation and integrated AI as well as machine learning in its organizational processes to increase effectiveness and efficacy (Joyce, 2022).

H. Developed IT infrastructure

The MGI Team has a highly developed and structured IT infrastructure within the organization. This facilitated the MGI Team in maintaining quick and transparent communication, as well as allows sharing on information quickly and without hassles.

I. International expansion and exposure

The MGI Team has expanded to other international locations as well. This international expansion has allowed the MGI Team to gain relevant exposure and experience of working with different cultures.

J. High growth in revenue

The MGI Team has a high rate of revenue growth. This is because of continual strategic efforts operationally, financially as well as in the organization's marketing.

K. Strong sales

The MGI Team also has strong sales, which has allowed the company to maintain high revenue growth. The sales of the MGI Team are attributed to the product offerings as well as the highly trained and focused sales team along with multiple sales channels adopted by the MGI Team.

L. Economies of scale in the manufacturing and development process

The MGI Team has achieved high economies of scale in its operations which has allowed it to maintain and control the costs of doing business (Stead & Stead, 2014).

M. Increased access to capital

The MGI Team has high access to capital which makes it easier for the company to make strategic plans as well as engage in research and innovation for business growth.

N. Strong profitability

The high sales and revenue for the MGI Team are indicative of the high-profit levels which it enjoys.

O. Stable cash flows

The MGI Team also enjoys stable cash flows given its strong financial cushioning and positive financial performances (Škudienė, Li-Ying, & Bernhard, 2020).

P. Increased strategic marketing

The MGI Team invests in strategic marketing, and develops strong marketing and promotions material. This s needed to facilitate the MGI Team in appealing to new consumers, penetrating new and existing consumer groups and establishing effective communication with the consumer base.

Q. Low turnover

The MGI Team has a low employee turnover rate. The MGI Team enjoys high job satisfaction and job morale on the part of employees, which helps it maintain high-performance levels (Wunder, 2019).

R. High employee motivation

Through engaging tasks and investment in employee development, the MGI Team has been able to create an increasingly motivated workforce.

S. Learning culture

The MGI Team has a learning culture, underpinned by values of trust, transparency and honesty, as well as passion, zeal, and innovation. The company culture allows the organization to maintain internal balance in the environment, as well as support training and development opportunities for effectively managing change.

T. Strong brand development

The MGI Team has undertaken in multiple brand-building activities. As a result, the MGI Team has developed a strong brand with positive associations, high real, and enjoys high awareness. This has led to the building of positive brand equity for the company (Moorthi, 2009).

2.8.2 WEAKNESSES

Weaknesses refer to those factors and internal capabilities that restrict the MGI Team from exploiting all resources available as well as from perfuming optimally. Weaknesses further hinder the MGI Team from benefitting from all the external opportunities present (Phillips & Moutinho, 2018). Some of the weaknesses of the MGI Team are discussed below:

A. Restricted patent protection

With the high number of new product developments, and innovations, the MGI Team has only a limited time for patent protection. This leads to a loss in intellectual property for the MGI Team, and restricts its competitiveness as well.

B. Lag in customer service

The MGI Team focuses on product development and improvement. This makes

it an increasing product-centric firm. In contrast, the MGI Team has mediocre customer service levels only, which leads to a deterioration in the customer experience with the company overall.

C. Compensation system

The MGI Team does not have a transparent compensation system. The bonuses and promotions are asked on managerial reviews alone, which often leads to nepotism and favoritism within the organization (Machado, 2019).

D. Succession planning

There is a lack of proper succession planning within the MGI Team. As a result of this, the MGI Team relies heavily on external hiring, which in turn leads to higher costs of business as well as increased costs of trainings (Valeri, 2021).

E. Restricted success in the niche market

Despite new product developments, the MGI Team has not been able to develop a niche market for its offerings. This has restricted the MGI Team from building a premium image, and earning a premium amount through ales.

F. Limited exploration of blue oceans

The MGI Team continues to operate in the mainstream industries and marketplaces, and within the existing parameters of the industry. The MGI Team has not explored blue oceans, and new opportunities, and the ad has failed to create new markets with negligible competition as well.

G. Stagnant groups of target consumers

The MGI Team continues to operate with similar target consumer groups. This is true for all its offerings. As a result, the MGI Team has failed to explore the full potential of the market, and has restricted its competitiveness as well (Park, 2020).

H. No expansion in emerging economies

Despite the increased international expansion, the MGI Team has failed to take advantage of the emerging economies of BRICs. This has led to a loss in potential revenue build-up and first-mover advantage as well for the MGI Team.

I. Restricted use of social media marketing

The MGI Team has not made strategic use of social media marketing, and instead relies heavily on traditional marketing means. The MGI Team, as a result, fails to achieve optimal penetration, and fails to create a valid connection with the target consumer audiences as well.

J. Restricted use of influencers for marketing

The MGI Team also does not make use of influencers for marketing purposes. As a result, the MGI Team fails to reach a large number of its target audiences, as well as potential target audience groups. Through losing out on influencer marketing, the MGI Team also loses out on cost-effective marketing means, and instead burdens the company with costly traditional marketing channels (Parasuraman, Berry, & Zeithaml, 1991).

K. Failure in new markets

The MGI Team has also faced failure in new markets for new products, i.e., for

diversification. This has created a negative impact on visiting consumers, and has led to the loss in brand equity for the MGI Team as well.

L. Limited brand extensions

The MGI Team is big on innovation. However, the combat fails to explore possible vertical and horizontal line a brand extensions. This may help the MGI Team expand existing consumers, and grow the company through mitigated and controlled risks.

M. Reliance on a single brand for revenue growth

The MGI Team has multiple offerings. However, the MGI Team relies heavily on only a few brands for revenue generation. These are the cash cows and the star products for the MGI Team. The MGI Team continues to invest in them largely instead of building other sustainable sources of revenue generation.

N. Large number of dogs and question marks in the portfolio

The company has a number of failed products that it continues to support in its portfolio. The MGI Team is reluctant to let go of the dogs, and also continues to invest in the question marks without developing relevant insights regarding market reactions. This is a weakness, and causes increased costs of business operations for the MGI Team.

O. Positioning of the brand is unclear and confusing

The MGI Team continues to offer multiple services and products. Most of these are lumped under similar brand offerings, which causes an unclear and a confusing brand positioning, and leads to confusion over the brand function as well. As a result, this effects the potential sales of the products and the brand adversely.

P. Restricted use of Omni-channel sales methods

The MGI Team continues to operate largely through brick and mortar stores, and has not fully shifted towards using Omni channels optimally – which has restricted full sales potential for the MGI Team as well.

Q. No placement of products with online e-trailers

The MGI Team does not place its products with e-tailors such as amazon and eBay. This results in a loss of potential customers, as well as restricts the business growth and penetration.

R. Weak supplier bargaining power

The MGI Team faces challenges with suppliers also as suppliers have higher bargaining power. This leads to further increases in the cost of doing business. The higher supplier bargaining power is because there are an increased number of players in the industry purchasing from a restricted number of suppliers.

S. No use of sustainability initiatives

The MGI Team has not introduced green initiatives, and sustainability channels within its supply chain or operations. This has led to an increase in the criticism that the company faces as well as negative PR – leading to negative associations for the company as well.

T. High number of substitute products available

There are a large number of substitute products available in the market for the MGI Team's offerings. As a result, the MGI Team needs to ensure higher quality, and is restricted in terms of price wars.

2.8.3 OPPORTUNITIES

Opportunities refer to the external factors and business conditions that a company can take advantage of. These factors will allow the MGI Team to increase its competitiveness. The MGI Team has the following opportunities:

A. Development of strategic alliances and partnerships

The MGI Team can develop strong partnerships and ventures with other companies – especially for purposes of expansion. This will help the MGI Team in mitigating possible risks, and keeping expenses under control as well (Stead & Stead, 2014). At the same time, it will give the company exposure for pursuing future growth.

B. Make use of market analytics

The MGI Team can incorporate market analytics in its decision-making. This would entail using machine learning and AI to identify possible market and consumer trends, and then using this data to make relevant business decisions for identifying and pursuing focused growth areas and opportunities.

C. Digital Marketing

The MGI Team can engage in, and make use of digital marketing for being able to reach a broader number of audiences, and improve penetration. At the same time, digital marketing will also allow the MGI Team to form engaging relationships with consumers – which in turn will lead to unique insights and developments.

D. Improved CRM culture and processes

The MGI Team is focused on innovation and product development with a shift towards consumer centralism, and the company will be able to improve its CRM processes and culture swell. Improved CRM will allow the company to benefit from improved consumer lifetime value (N'Goala, Pez-Perard, & Prim, 2019).

E. Focus on building a high service culture

The MGI Team can develop its service culture – throughout the consumer purchase journey and contact points – to differentiate itself from the competition. Consumers increasingly seek companies with commendable and quick services.

F. Green consumption trends and habits

As consumers increasingly become aware of green product consumption and include the same in their shopping routines, it would be wise for the MGI Team to also introduce green brands and products in its portfolio. This will strengthen the image of the MGI Team, as well as allow it to explore new target consumer groups (Buchanan & Huczynski, 2019).

G. Sustainability incorporation in internal operations

The MGI Team should also include sustainability factors and initiatives in its business units and operations throughout. This is needed to abide by new local and global regulations and requirements, as well as to ensure a lower environmental footprint. Further, consumers increasingly seek companies with sustainable operations as well for consumption purposes.

H. Build and communicate a clear value proposition

The MGI Team should also focus on its marketing communication, and value propositions for multiple products and brands. The marketing communications should be clearly used for communicating singular value propositions for individualistic brands of the MGI Team to ensure clarity and positive associations.

I. Introduce new and special offers to expand customer base

The MGI Team can introduce new offers and special discounts to attract new consumer groups. This can be true for existing products, as well as new products by the MGI Team.

J. Focus on developing customer retention and loyalty programs

The MGI Team can focus on enhancing its CRM processes through building retention and loyalty programs – which reward consumers for repeat purchases. This will ensure higher sales, repetitive purchases, as well as trial generation.

K. Focus on buzz marketing

By using influencer marketing, as well as by incorporating tactics for viral marketing, the MGI Team can also create positive word of mouth and make use of buzz marketing. This will be cost-effective, as well as credible, and will increase sales for the MGI Team.

L. Focused diversification

The MGI Team can make use of focused diversification for growth as well. This will entail that the MGI Team makes a careful study of the different markets it operates in, its strengths and market gaps to innovate and for new product development. The innovation will aim to fill in the market gaps, giving the MGI Team first mover advantage as well in different markets.

2.8.4 THREATS

Threats refer to eternal conditions and factors that restrict the competitiveness of the MGI Team. Threats also restrict the MGI Team from fully and optimally using from its strengths, and pose a possible risk and hard for the MGI Team (Wunder, 2019). The MGI Team is faced with the following threats:

A. High competition

The MGI Team faces high competition from an increased number of local as well as international players in the market and industry.

B. Government regulations and policies

The changing government regulations and policies increase the cost of doing business for the MGI Team, for example, through increasing import duties on raw materials.

C. Price volatility

The MGI Team faces high price volatility and fluctuations in the acquisition of raw materials, which impacts the schedule of internal operations and costs considerably.

D. Products are imitative

The competition can easily imitate the MGI Team's products, which lowers its uniqueness and point of differentiation – leading to the high number of substitutes available in the market.

E. Market saturation

The current market is saturated with similar products and companies, which makes opportunities for growth restricted for the MGI Team (Mebert & Lowe, 2017).

F. Market maturity

The current market is mature, and players compete through price wars, which makes revenue stability a challenge for the MGI Team.

G. Changes in consumer behavior patterns and habits

Consumer behavior patterns are fast changing as they move towards digital shopping and green consumption. The MGI Team must pay attention to these changes, and make alterations in its business model accordingly to be able to survive and remain relevant.

H. High supplier costs

The MGI Team experiences high supplier costs, owing to the high bargaining power of the supplier in the industry. This makes the cost of doing business high for the MGI Team.

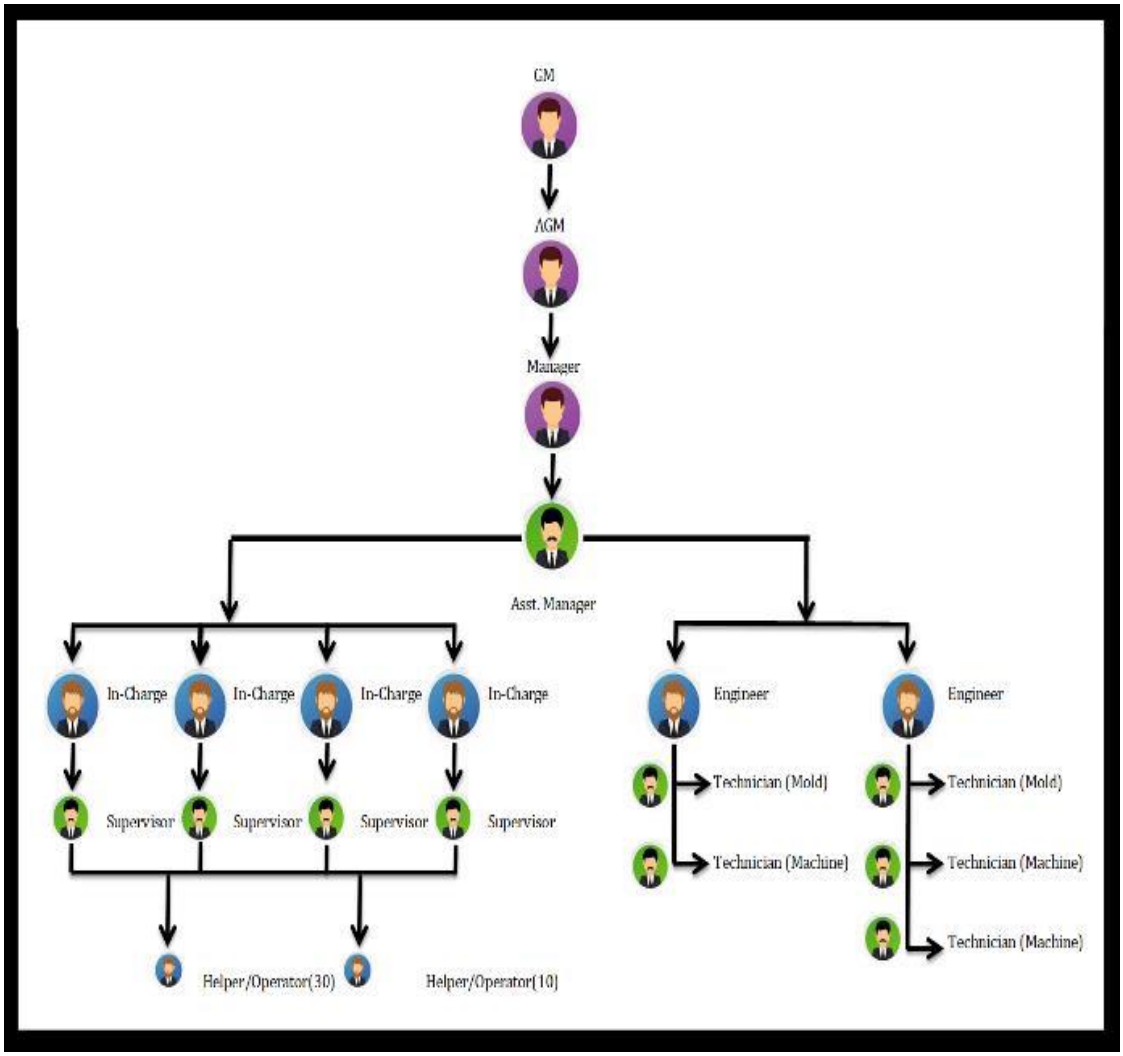
I. Outperformed by companies and startups that are data-driven

The MGI Team does not make use of a high number of machine learning models, and data-based analytics. As a result, the company is outperformed by other startups that are data driven, and use market analytics for decision-making, and business development (Malik, 2018).

J. High inflation

The high inflation has restricted sales for the MGI Team. At the same time, it has also increased the cost of doing business, leading to a cumulative adverse impact on the revenue and profitability of the MGI Team.

2.9 Departmental Organogram



2.10 Job Description

In my 5 years work experience I go through different responsibilities, training, one to one conversation to know each person's responsibility and team meeting etc.

First two week of my job I go through different type of training and during this session I learn corporate culture of MGI industry, different rules and regulations, values etc. Next 3 week I assign with my senior colleague and learn how to use ERP SAP system, preparing different kinds of notes, rebate bill etc.

From the sixth week I assigned with specific task as like D.O creation and handle Sylhet depot. Gradually my responsibility increased and I learn how to handle work under pressure. Sometimes in absence of other employee I did their task beside my own responsibility. It helps me to learn other people task.

2.11 Specific Responsibilities and Activities

- Manage, organize & update relevant data using Advanced ERP (Software) to create customer & Sales Order sheet for Product Line B (Oil).

- Create financial & statistical reports, documents, proposing for credit limit and keep liaison with the accounts department, analyze and interpret other data and produce reports.

- Coordinate with assigned depot for their daily operation as like order sheet approval and credit limit settled with the assist of accounts department.

- Prepare daily delivery report of edible oil supplied to distributor for Tariff Commission of Bangladesh (TCB).

- DO (Delivery Order) and TO (Transfer Order) creation through ERP software based on sales demand for smooth delivery operation.

- Prepare all kind of notes i.e. DO cancel note, Rate adjustment, Rebate bill etc.

- Work closely with Sales Management, Finance & IS to ensure robust Sales Order Management process is implemented across entire Supply Chain.

- Monitor delivery & undelivered status of products (Product line – B) with regular liaison with production & other supply chain colleagues.

- Perform any other assigned jobs related to Supply Chain operation.

- Support on strategic decision by collecting and providing relevant information to retain old customers and attract new customers to fulfill increasing customers demand and gain competitive advantage over rivals.
- Resolve various depot related complex issues to enhance performance of the Organization in FMCG sector.

- Co-ordinate Deputy Manager in report preparation on inventory analysis of FMCG division.

- Assure & follow up the practice of MGI Values & Behaviors.

2.12 Observations and Recommendations

After working with SCM department of MGI my observations are:

- ✓ Adequate training for employee
- ✓ Salary structure and government holiday
- ✓ Employee safety
- ✓ Good HR policy

SCM concept is new for Bangladeshi industry, so most of the employee does not have proper knowledge about SCM but still they are working in this department. Adequate training on SCM is very much essential for the Industry because Company can swim or sink with SCM. There is no standard salary structure in MGI industry, so some employee get very poor salary compare to other. It should be structured to motivate employee. During most of the government holiday employee has to do their office and they do not get any extra benefit. If company need to open during holiday they should provide proper compensation. In MGI industry in FMCG division at Uttara, they do not have enough fire extinguishers and elevator which is used is not fit for commercial usage which causes employee safety. They should practice good HR policy for their future growth.

2.13 Description of the Project

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

Traditionally, marketing, distribution, planning, manufacturing, and the purchasing organizations along the supply chain operated independently. These organizations have their own objectives and these are often conflicting. Marketing's objective of high customer service and maximum sales conflict with manufacturing and distribution goals. Many manufacturing operations are designed to maximize throughput and lower costs with little consideration for the impact on inventory levels and distribution capabilities. Purchasing contracts are often negotiated with very little information beyond historical buying patterns. The result of these factors is that there is not a single, integrated plan for the organization---there were as many plans as businesses. Clearly, there is a need for a mechanism through which these different functions can be integrated together. Supply chain management is a strategy through which such integration can be achieved.

Supply chain management consists of developing a strategy to organize, control, and motivate the resources involved in the flow of services and materials within the supply chain. A supply chain strategy, an essential aspect of supply chain management, seeks to design a firm’s supply chain to meet the competitive priorities of the firm’s operations strategy. Supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and all logistics management. Importantly, it also includes coordination and collaboration with channel partners. Here the channel partners can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

According to **William J**. **Stevenson** “A supply chain is the sequence of organizations – their facilities, functions, and activities – that are involved in producing and delivering a product of service. The sequence begins with basic suppliers of raw materials and extends all the way to the final customer. Facilities include warehouses, factories, processing centers, distribution centers, retail outlets, and offices.”

According to **Mentzer and other** "Supply chain management is defined as the systematic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole."

According to **Krajewski, Ritzman, and Malhotra** "Supply chain management consists of developing a strategy to organize, control, and motivate the resources involved in the flow of services and materials within the supply chain. A supply chain strategy, an essential aspect of supply chain management, seeks to design a firm's supply chain to meet the competitive priorities of the firm's operations strategy."

2.14 The Need for Supply Chain Management

In the past, most organizations did little to manage their supply chains. Instead, they tended to concentrate on their own operations and on their immediate suppliers. However, a number of factors make it desirable for business organizations to actively manage their supply chains.

The major factors are:-

- The need to improve operations
- Increasing levels of outsourcing
- Increasing transportation costs
- Competitive pressures
- Increasing globalization
- Increasing importance of e-commerce
- The complexity of supply chains
- The need to manage inventories

Chapter 3:
Theoretical Discussion

3.1 Supply Chain Management (SCM)

Investopedia 2 define supply chain management (SCM) as 'Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. It involves the active streamlining of a business's supply-side activities to maximize customer value and gain a competitive advantage in the market place.'

Techopedia 3 define SCM as 'The management and oversight of a product from its origin until it is consumed. SCM involves the flow of materials, finances and information. This includes product design, planning, execution, monitoring and control.'





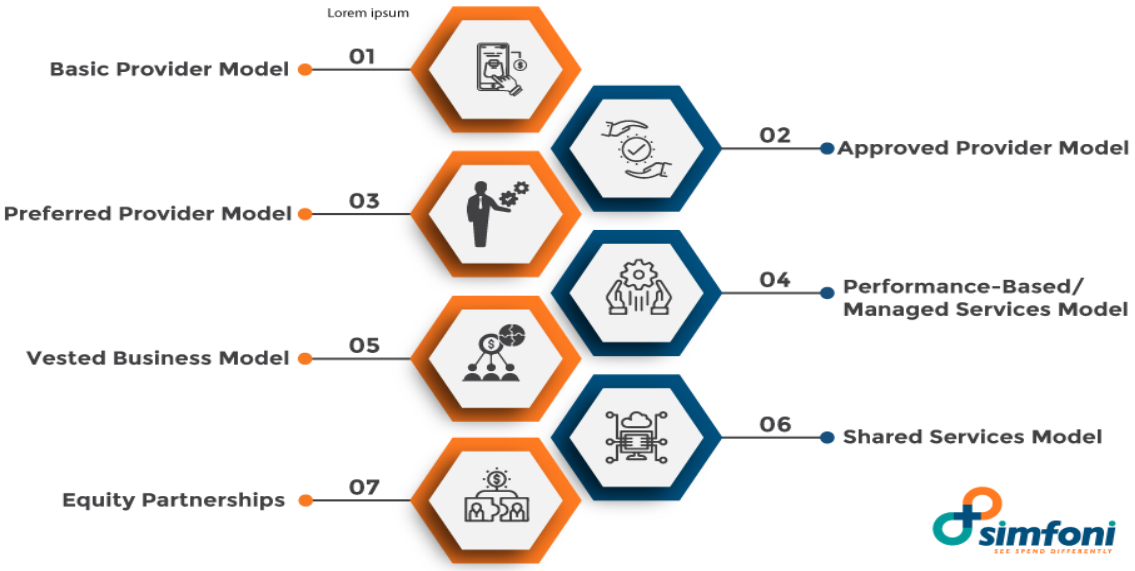
Fig: Supply Chain Management Flow

3.2 Sourcing

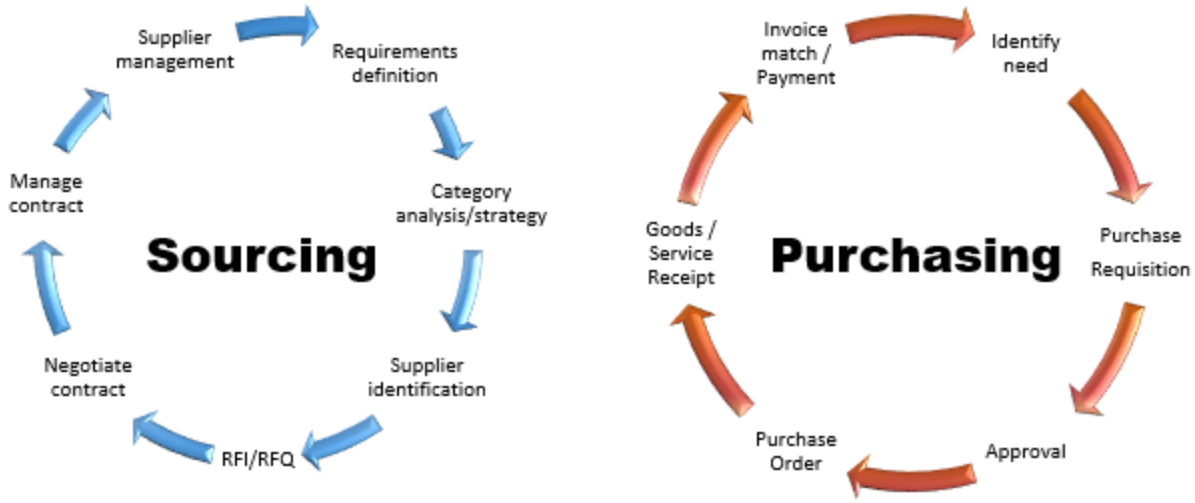
It is the process of identifying, selecting, and developing suppliers. It is that part of the procurement process concerned with 'how and where services or products are obtained'.

It is rightly argued as the most important part of the procurement process because if the right and correct source decision is made in a particular instance, then the buying organization's needs should be met perfectly.

Sourcing Models



PROCUREMENT



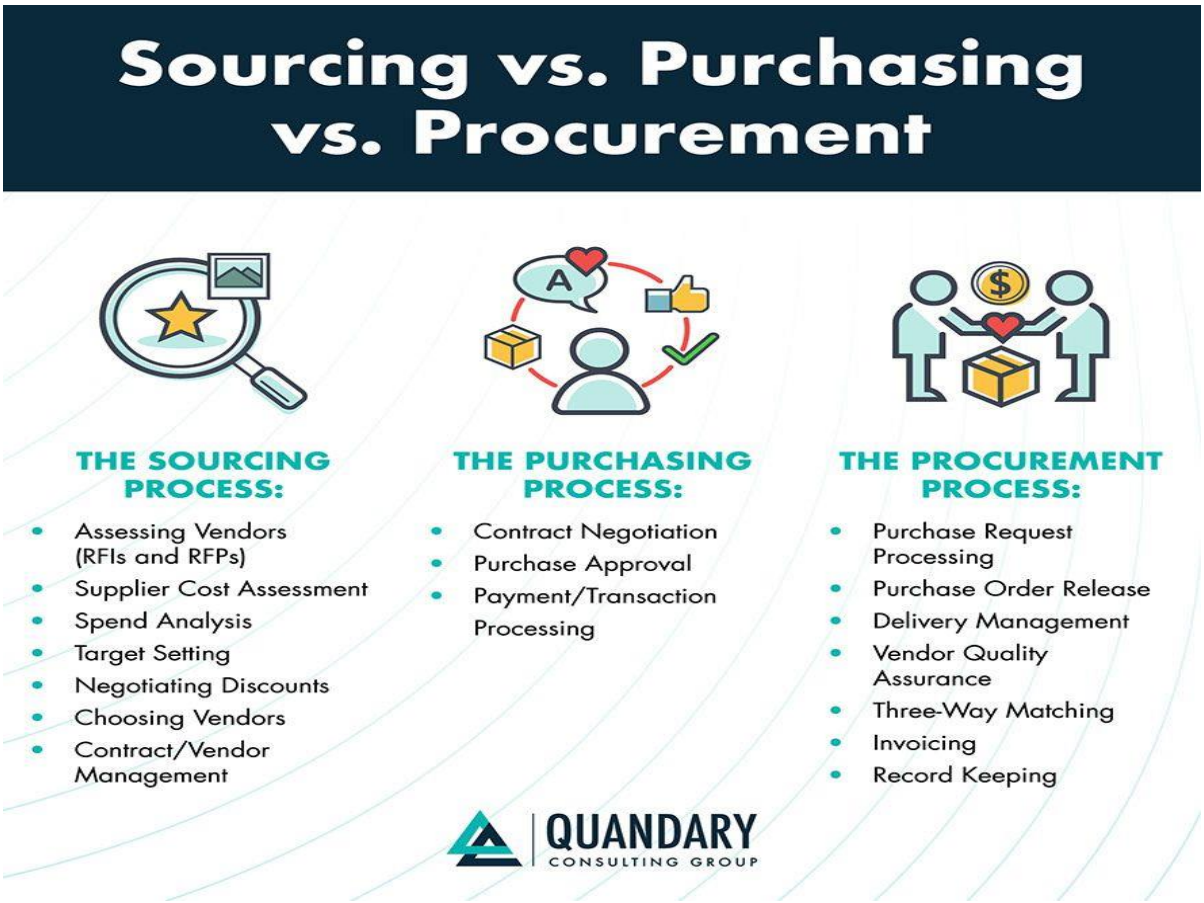


Fig: Differentiate of Sourcing, Purchasing & Procurement.

3.3 Define Procurement

CIPS Australia 1 motivated a debate on an agreed procurement lexicon. The following statements were proposed:

- Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs or may need to fulfil its strategic objectives.
- Procurement exists to explore supply market opportunities and to implement resourcing strategies that deliver the best possible supply outcome to the organization, its stakeholders and customers.

- Procurement applies the science and art of external resource and supply management through a body of knowledge interpreted by competent practitioners and professionals.

The author offers two more definitions of procurement.

- Procurement is a pro-active, strategic corporate activity to ensure a continuing supply of goods and services to enable world-class organizational performance.

- Procurement manages supply chain risks through effective negotiation of contracts, cost and price models, quality and other essential supply characteristics.



Fig: Procurement Process.

3.4 Materials management

Materials management (MM) is concerned with the flow of materials to and from production or manufacturing and has been defined as:

"The planning, organization and control of all aspects of inventory embracing procurement, warehousing, work-in-progress and distribution of finished goods."

Some aspects of MM that may be included under the heading 'Materials flow' are listed in Table. 3.4. The factors influencing the activities assigned to MM include the following:

- Procurement is frequently the 'key' activity
- Production planning and control may be assigned to MM or the manufacturing function

Where this is separate – the former tends to apply when production is materials orientated, such as in an assembly factory; the latter when production is machine/ process orientated.

Materials flow	*Typical activities*
Planning	Preparation of materials budgets, product research and development, value engineering and analysis, standardisation of specifications
Procurement	Determining order quantities, processing works and stores requisitions, issuing enquiries, evaluating quotations, supplier appraisal, negotiation, placing contracts, progressing deliveries, certifying payments, vendor rating, supplier and contract management
Storage	Stores location, layout and equipment, mechanical handling, stores classification, coding and cataloguing, receipt of purchased items, inspection, storage or return, stock and store safety and security, stock integrity and rotation, stores environment management, issuing to production, providing cost data, stock records and verification, recycling or disposal of obsolete, surplus or scrap material
Production control	Forward ordering arrangements for materials, preparing production schedules and sequences, issuing orders to production, emergency action to meet material shortages, make-or-buy decisions, quality and reliability feedback and adjustment of supplies flow to production line or sales trend

Table 3.4: Materials flow activities

3.4.1 Inventory Management

"A list of items which are kept to the stock for future purpose" this is called inventory. Inventory management refers to the process of ordering, storing, using, and selling a company's inventory. This includes the management of raw materials, components, and finished products, as well as warehousing and processing of such items. There are different types of inventory management, each with its pros and cons, depending on a company's needs.

- **The Benefits of Inventory Management**

A company's inventory is one of its most valuable assets. In retail, manufacturing, food services, and other inventory-intensive sectors, a company's inputs and finished products are the core of its business. A shortage of inventory when and where it's needed can be extremely detrimental.

At the same time, inventory can be thought of as a liability (if not in an accounting sense). A large inventory carries the risk of spoilage, theft, damage, or shifts in demand. Inventory must be insured, and if it is not sold in time it may have to be disposed of at clearance prices—or simply destroyed.

For these reasons, inventory management is important for businesses of any size. Knowing when to restock inventory, what amounts to purchase or produce, what price to pay—as well

as when to sell and at what price—can easily become complex decisions. Small businesses will often keep track of stock manually and determine the reorder points and quantities using spreadsheet (Excel) formulas. Larger businesses will use specialized enterprise resource planning (ERP) software. The largest corporations use highly customized software as a service (SAAS) applications.

Appropriate inventory management strategies vary depending on the industry. An oil depot is able to store large amounts of inventory for extended periods of time, allowing it to wait for demand to pick up. While storing oil is expensive and risky—a fire in the U.K. in 2005 led to millions of pounds in damage and fines—there is no risk that the inventory will spoil or go out of style.1 For businesses dealing in perishable goods or products for which demand is extremely time-sensitive—2021 calendars or fast-fashion items, for example—sitting on inventory is not an option, and misjudging the timing or quantities of orders can be costly.

For companies with complex supply chains and manufacturing processes, balancing the risks of inventory gluts and shortages is especially difficult. To achieve these balances, firms have developed several methods for inventory management, including just-in-time (JIT) and materials requirement planning (MRP).

- **Accounting for Inventory**

Inventory represents a current asset since a company typically intends to sell its finished goods within a short amount of time, typically a year. Inventory has to be physically counted or measured before it can be put on a balance sheet. Companies typically maintain sophisticated inventory management systems capable of tracking real-time inventory levels.

Inventory is accounted for using one of three methods: first-in-first-out (FIFO) costing; last-in-first-out (LIFO) costing; or weighted-average costing. An inventory account typically consists of three separate categories:

1. Raw materials — represent various materials a company purchases for its production process. These materials must undergo significant work before a company can transform them into a finished good ready for sale.
2. Work in process (also known as goods-in-process) — represents raw materials in the process of being transformed into a finished product.
3. Finished goods — are completed products readily available for sale to a company's customers.

- **Inventory Management Methods**

Depending on the type of business or product being analyzed, a company will use various inventory management methods. Some of these management methods include just-in-time (JIT) manufacturing, materials requirement planning (MRP), economic order quantity (EOQ),

and days sales of inventory (DSI). There are others, but these are the four most common methods used to analyze inventory.

1. Just-in-Time Management (JIT)

This manufacturing model originated in Japan in the 1960s and 1970s. Toyota Motor (TM) contributed the most to its development. The method allows companies to save significant amounts of money and reduce waste by keeping only the inventory they need to produce and sell products. This approach reduces storage and insurance costs, as well as the cost of liquidating or discarding excess inventory.

JIT inventory management can be risky. If demand unexpectedly spikes, the manufacturer may not be able to source the inventory it needs to meet that demand, damaging its reputation with customers and driving business toward competitors. Even the smallest delays can be problematic; if a key input does not arrive "just in time," a bottleneck can result.

2. Materials Requirement Planning (MRP)

This inventory management method is sales-forecast dependent, meaning that manufacturers must have accurate sales records to enable accurate planning of inventory needs and to communicate those needs with materials suppliers in a timely manner. For example, a ski manufacturer using an MRP inventory system might ensure that materials such as plastic, fiberglass, wood, and aluminum are in stock based on forecasted orders. Inability to accurately forecast sales and plan inventory acquisitions results in a manufacturer's inability to fulfill orders.

3. Economic Order Quantity (EOQ)

This model is used in inventory management by calculating the number of units a company should add to its inventory with each batch order to reduce the total costs of its inventory while assuming constant consumer demand. The costs of inventory in the model include holding and setup costs.

The EOQ model seeks to ensure that the right amount of inventory is ordered per batch so a company does not have to make orders too frequently and there is not an excess of inventory sitting on hand. It assumes that there is a trade-off between inventory holding costs and inventory setup costs, and total inventory costs are minimized when both setup costs and holding costs are minimized. The formula used to estimate EOQ is as follows:

$$\textit{Economic order quantity (EOQ)} = \sqrt{[(2 \times D \times K)/H]}$$

Where,

- D = Demand per year
- K = Ordering cost per purchase
- H = Holding costs per year, per unit

Minimum Order Quantity or MOQ

It is the minimum volume of stocks that a supplier wishes to sell to a producer. The only aim of the supplier here is to earn more profits while getting rid of the inventory more quickly.

Safety Stock

Safety Stock is the stockpile of inventory that a manufacturer retains in excess to ensure they are available to customers when demand spikes unexpectedly. Besides, it protects businesses against the unforeseen shortage in supply.

Also known as a buffer or emergency stock, it lets manufacturers cover up for the lead time until the new inventory reaches points of sale. However, it never crosses the level that increases holding costs.

Safety stock = (Max Daily Sales x Max Lead Time in Days) – (Average Daily Sales x Average Lead Time in Days)

Reorder Point

Reorder Point is the level at which businesses realize to reorder new inventory from the supplier to avoid stock outs. The replenishment of stocks considers factors like existing and potential demand and lead time before new inventory arrives. The formula used by businesses to determine a minimum level of inventories is as follows:

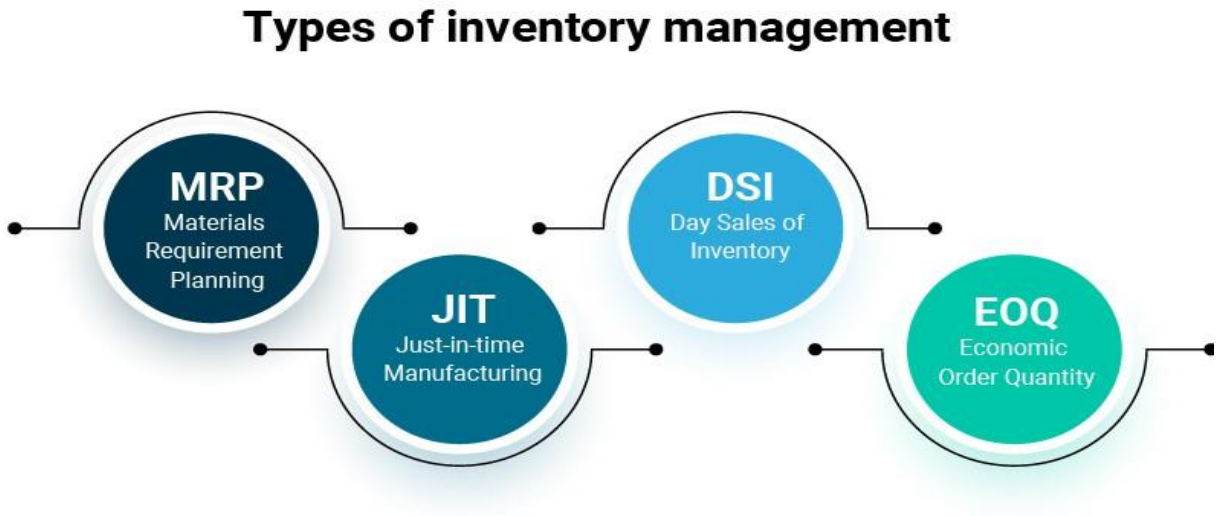
Reorder point = (Average Daily Sales x Average Lead Time in Days) + Safety Stock



4. Days Sales of Inventory (DSI)

This financial ratio indicates the average time in days that a company takes to turn its inventory, including goods that are a work in progress, into sales. DSI is also known as the average age of inventory, days inventory outstanding (DIO), days in inventory (DII), days sales *in* inventory or days inventory and is interpreted in multiple ways.

Indicating the liquidity of the inventory, the figure represents how many days a company's current stock of inventory will last. Generally, a lower DSI is preferred as it indicates a shorter duration to clear off the inventory, though the average DSI varies from one industry to another.



3.5 Distribution management

The physical movement and delivery of goods and services to customers is a key objective of supply chain management. It is important for procurement to recognize their potential role in assisting distribution management to be highly efficient and cost effective.
Procurement should have a strategic role in defining the distribution strategy. Corporately, the strategy will be either:

- Own the assets (buildings, equipment and transport vehicles, or some of the assets)
- Lease or rent assets
- Outsource distribution in its entirety.

The distribution strategy is impacted by: economic factors, channels of distribution and their location, service centers and warehouses locations, and the nature of the goods or services. For example, there are noticeable differences between the distribution of perishable goods and engineering parts and equipment. In addition to the distribution strategy, warehouse operations, stock management and transport planning are other components of the strategy. The area of stock management is a key consideration wherein procurement can have a major impact. They can advise on such matters as:

- Negotiating consignment stock at key locations, including the client's premises.
- Negotiating lead times and contract terms and conditions when lead times not met.
- Negotiating minimum order quantities.
- Negotiating virtual inventory management.

3.5.1 Definition of Logistics Management

The management process which integrates the movement of goods, services, information, and capital, right from the sourcing of raw material, till it reaches it send consumer is known as Logistics Management. The objective behind this process is to provide the right product with the right quality at the right time in the right place at the right price to the ultimate customer. The logistic activities are divided into two broad categories they are:

- **Inbound Logistics**: The activities which are concerned with procurement of material, handling, storage and transportation
- **Outbound Logistics**: The activities which are concerned with the collection, maintenance, and distribution or delivery to the final consumer.

A part from these, other activities are warehousing, protective packing, order fulfillment, stock control, maintaining equilibrium between demand and supply, stock management. This will result in savings in cost and time, high-quality products, etc.

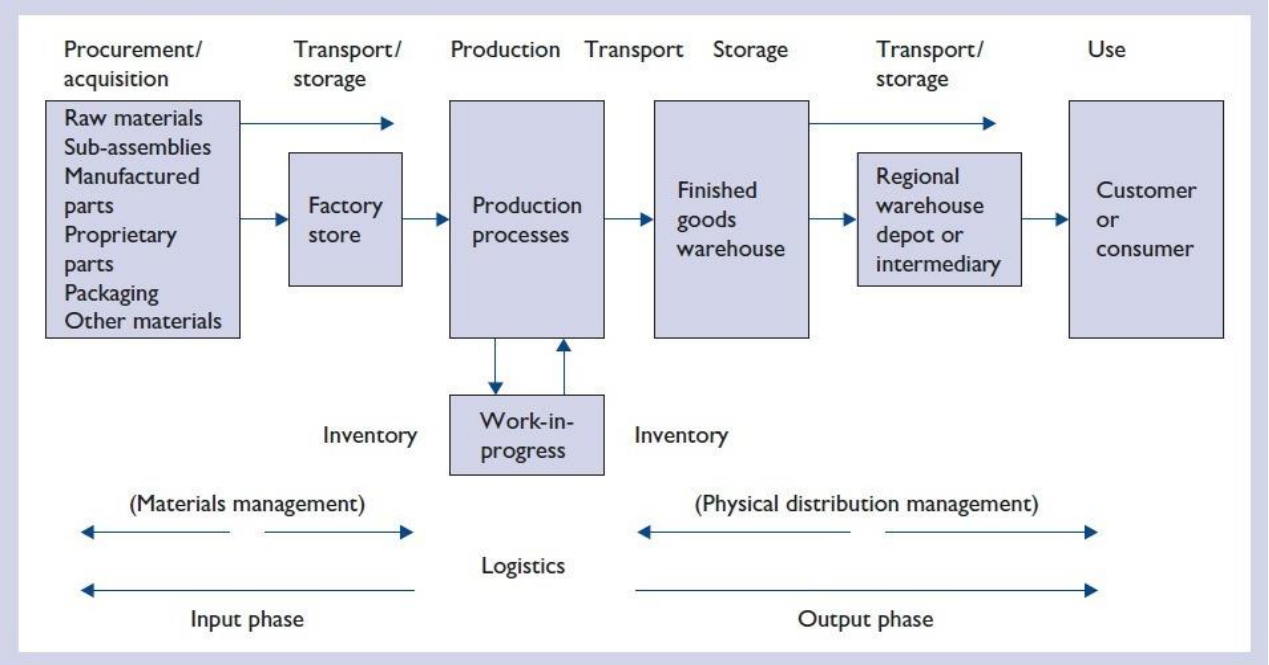


Fig: Logistic Management.

3.5.2 Warehousing

Warehouse management encompasses the principles and processes involved in running the day-to-day operations of a warehouse. At a high level, this includes receiving and organizing warehouse space, scheduling labor, managing inventory and fulfilling orders. Zoom in closer and you'll see that effective warehouse management involves optimizing and integrating each of those processes to ensure all aspects of a warehouse operation work together to increase productivity and keep costs low.

Benefits of Warehouse Management

Warehouse operations are generally invisible to customers, but they play a vital behind-the-scenes role in ensuring on-time delivery. To achieve this goal, good warehouse management ensures all warehouse processes run as efficiently and accurately as possible. For example, warehouse management involves optimizing the use of warehouse space to maximize inventory storage; making inventory easy for staff to find; ensuring adequate staffing; efficiently fulfilling orders; and coordinating communication with suppliers and transportation companies so materials arrive and orders ship on time.

The benefits of good warehouse management—namely fast, high-quality service at low cost—can ripple out to the entire supply chain, strengthening relationships with suppliers as well as customers.

But given the many elements involved, optimizing warehouse management can be a complex task. That's why many organizations are turning to warehouse management systems for help.

What Is a Warehouse Management System?

A warehouse management system (WMS) is a software solution that aims to simplify the complexity of managing a warehouse. Often provided as part of an integrated enterprise resource planning (ERP) suite of business applications, a WMS can support and help to optimize every aspect of warehouse management. For example, a WMS can:

- Leverage data and automation to conduct demand analyses, forecast sales and create efficient daily operating plans.
- Provide real-time insight into inventory location and quantity.
- Share data with other ERP modules or standalone software products, such as accounting software and transportation management solutions, to increase the efficiency of business operations.
- Monitor and report productivity to offer a deeper understanding of how efficiently your warehouse is operating and where you can make improvements to warehouse geography and optimize space.
- Create step by step directions to guide users through daily processes—such as receiving, picking and packing orders—using predefined rules.

Inventory Management vs Warehouse Management

Before getting into the details of warehouse management, it may help to understand a few common terms. For example, the terms inventory management and warehouse management are often used interchangeably, but there are key differences:

Inventory management

Inventory Management is centered on efficiently and effectively ordering, storing, moving, and picking the materials needed to make products or fulfill orders.

Warehouse management

Warehouse Management is a broader term that includes other aspects of warehouse operations, such as warehouse organization and design, labor, order fulfillment, warehouse monitoring and reporting.

Stock Management

Stock management is often used as another term for inventory management, but it's important to recognize the difference between "stock" and "inventory," particularly for companies involved in manufacturing products. Stock generally refers to finished product ready for sale or distribution. Inventory, however, includes everything in the warehouse: raw materials, materials that are in the process of being built into products and finished products (stock).

Stock management is therefore a subset of inventory management that focuses specifically on holding as little stock as possible—to save space and costs—while still being able to meet customer demand.

Principles of Warehouse Management

Understanding the general principles of warehouse management can help you focus your efforts to optimize the way your warehouse operates. These principles include:

Know your purpose. A warehouse operation must first and foremost know its objectives. For example, do your customers have specific delivery requirements? Does your inventory need specialized storage? Additionally, all warehouse operations aim to use warehouse space, labor and equipment as efficiently as possible.

Comprehensive control. Warehouse management involves coordinating complex processes involving many moving parts: people, equipment, orders and inventory. Warehouse managers need to be able to track each process in order to ensure it's running smoothly and solve the problems that inevitably occur. Quality control is critical to ensure orders are fulfilled accurately.

Flexibility and resilience. Warehouse managers have to be able to change plans on the fly, whether it's because materials have arrived damaged or because inclement weather is delaying

shipments. It's also important to be able to adjust workflows to maximize efficiency, whether that involves rearranging warehouse space or reimagining picking processes.

Customer focus. On-time delivery, with the correct product, is one of the most important metrics when it comes to customer service and satisfaction. To deliver on time, you need to be able to fulfill orders quickly and accurately.

Data-driven decision making. Even if every warehouse process appears to be running without a hitch, it doesn't mean processes are operating as efficiently as possible. A WMS can help you pinpoint and analyze areas that need improvement.

Warehouse Management Processes

Warehouse management includes six core processes. Each process influences the efficiency of the next, so every step must be optimized for the warehouse operation to run like a well-oiled machine:

- **Receiving.** Check in and log incoming items. Verify that you're receiving the right quantity, in the right condition, at the right time.
- **Put-away.** Move items from the receiving dock to their correct storage locations.
- **Storage.** Safely store and logically arrange inventory to enable fast and accurate picking.
- **Picking.** Collect the items needed to fulfill sales orders.
- **Packing.** Prepare the picked items for shipment. They must be safely packed into the correct packaging with an accurate packing slip.
- **Shipping.** Send out the finalized sales orders, ensuring that they are on the right vehicle, at the right time, with the correct documentation, so customers receive their orders on time.

Warehouse Optimization

Optimizing your warehouse operation involves fine-tuning each of these warehouse management processes. For example, when receiving goods, an organization can label items with mobile barcodes or attach RFID tags to make them easier to find when picking. During put-away, a well-managed warehouse operation stores items in the minimum amount of space to maximize the capacity of the warehouse. Other best practices for warehouse optimization include storing popular items in easily accessible areas and separating items that can easily be mistaken for one another.

Warehouse Management Fulfillment Strategies

Selecting fulfillment strategies that match the business's size and the volume and type of orders it receives can help the organization ship products faster, minimize waste and improve customer satisfaction. Applying picking strategies that match the type of orders that you receive can help maintain the most effective workflow. For example:

- Batch picking is a technique that can help you quickly fulfill multiple orders for the same product without wasting time by continually revisiting the same inventory location.
- Zone picking assigns pickers to different zones of SKUs. For each order, pickers are responsible for picking all SKUs from their designated zone.
- First expired, first out (FEFO) picking ensures perishable products and items make it to customers before specified expiration or sell-by dates. With FEFO, the products set to expire first are shipped first.
- First in, first out (FIFO) picking ensures the first products to come into the warehouse are the first to be distributed, which can help make sure older items are shipped before they can become obsolete.

Technology is also an important part of any warehouse management fulfillment strategy. Handheld mobile devices that display packing lists with item locations, serial numbers and lot numbers can help increase picking speed and accuracy. Software can recommend safe and cost-effective packing based on product dimensions to ensure each item gets shipped securely, with as little waste—and wasted space—as possible.

Warehouse Monitoring & Reporting

Measuring and tracking key performance indicators (KPIs)—operational statistics that indicate how well the warehouse is operating—can help pinpoint problems and highlight opportunities to improve efficiency and fulfill customer orders more quickly and accurately. For example, you can set a target for improved picking and packing accuracy, then make changes to your picking processes and measure whether those changes are effective in helping you achieve your goal.

Warehouse KPIs

Warehouse managers often track the following KPIs, among others:

- **Receiving efficiency or productivity**: The volume of goods received per warehouse operator, per hour. Higher scores indicate greater receiving efficiency, while lower scores indicate that there may be problems that should be investigated.
- **Picking accuracy**: The number of orders accurately picked divided by the total number of orders picked (including incorrect or short orders). The closer to 100% accuracy, the better.
- **Order lead time**: The average time it takes for an order to reach a customer once the order has been placed. For the highest customer satisfaction, the shorter the lead time, the better.
- **Rate of product return**: The rate at which sold goods are returned by customers, calculated by dividing the number of items returned by the number of items sold. To get a full picture of this KPI, it's important to consider why products are being returned—a customer accidentally ordering the wrong product might not signify warehouse operation issues, but there is room for improvement if customers often receive incorrect products or damaged goods.
- **Inventory turnover**: How much inventory is sold and replaced in a given period of time. It's calculated by dividing the total cost of goods sold during the period by the average cost of inventory during that period. This KPI reflects how efficiently a warehouse manages inventory to meet demand. In general, higher inventory turnover is better. If a warehouse overestimates demand, inventory turnover may be low. Too much slow-selling inventory can be costly—especially for businesses dealing with goods that have a predetermined shelf life.



Fig: Warehouse Management System.

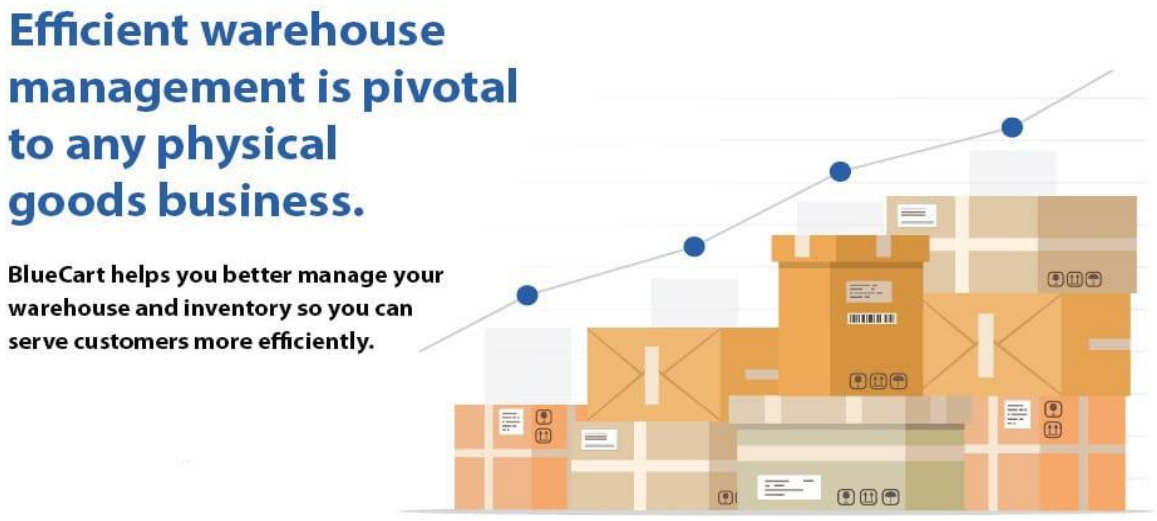


Fig: Benefits of warehousing.

3.6 Importance of Supply Chain Management

The main reasons for the importance of supply chain management includes the following:

- **Reduced Costs** - Supply chain managers are often focused on reducing the costs incurred at all steps within the supply chain. Improving production processes, relationships with suppliers, and inventory management are some of the ways that supply chain managers can attempt to further reduce costs. The overall benefit of reducing costs throughout the supply chain is an increase in firm profits. Even reducing the cost of items by a few cents can result in millions of dollars saved if you
- **Interconnected Supply Chain** - Supply chains can appear like independent strings of a few companies working together to reach a common goal of delivering products to consumers. However, it is much more complex than that as the world can easily be viewed as one large supply chain. Consumers, distributors, producers, and suppliers are consistently communicating with each other as materials and components are transformed into finished goods that ultimately end up in the hands of consumers. It is therefore crucial for supply chain managers to focus on visibility and communication between all components as well as on the growth of their organization, partnerships, and outsourcing.
- **Information Transfer and Communication** - Supply chain management (SCM) is a necessity for the foundation of all societies. Effective communication and information transfer in real-time is a necessity for the foundation of a robust supply chain. This starts by building strong relationships between all components of the supply chain and ensuring that communication is easy and that all parties are aligned towards a common goal. As information flows backwards from the end-consumer to the supplier, supply chain managers must reduce any delays or errors in the information that is transferred from one chain link to another. Many modern manufacturers are relying on advanced technology that can increase the visibility of order statuses to both consumers and suppliers in real-time to meet everyone's needs.

- **Better Customer Service** - Effective supply chain management can provide direct improvement to your customer service. This is because SCM processes will ensure that the correct quantity of the correct items will be delivered in a timely manner. Having an interconnected network of suppliers and distributors will reduce delays and improve customer satisfaction. In addition, supply chain management will usually increase visibility and allow both customers and customer service personnel to know of the status of each order at all times.
- **Agility** - Supply chain management is important to allow organizations to remain agile and be able to handle any unexpected issue or variability that may occur. By streamlining supply chain processes and increasing visibility, businesses will be able to diagnose problems and find appropriate solutions more quickly. In addition, having contingency plans and what-if scenario analyses of your production schedule will allow you to quickly evaluate your options and find the best solution for your company,

  A software that can aid with your overall supply chain is Planet Together Advanced Planning and Scheduling Software (APS). Planet together is a visual scheduling software that allows you to have a clear representation of your production process. This allows you to quickly identify areas that are in need of productivity enhancement or constraint management.

  Planet Together APS is a necessity for manufacturing operations that are looking to take their production up a notch, increase productivity, decrease costs, and deliver goods on time. Advanced Planning and Scheduling software is being implemented into manufacturing operations around the globe and is helping make the planet more productive, one factory at a time.



Fig: Importance of Supply Chain Management

Chapter 4
Analysis of the Study

4.1 Inventory Analysis of MGI

Brand: Tasnim Condensed Milk Ltd.
Product: Finished Goods

Analysis Of (MGI)					
	UOM	**July-2023**	**August-2023**	**Target**	**Objective**
Inventory Turnover	Qty (ctn)	2.67	2.09		To Increase Inventory Turnover
	Value	3.27	2.53		
Perfect Order Rate	Qty (ctn)	0.0021 (0.2%)	0.0017 (0.17%)		To achieve better performance by reducing error.
	Value	0.0021 (0.2%)	0.0014 (0.17%)		
Inventory to Sales Ratio	Value	0.36 (36%)	0.41 (41%)		To Increase Inventory to sales ratio
Rate of Return	Qty (ctn)	0	0.00179		To reduce rate of return
	Value	0	0.00181		

4.2 Inventory Turnover of MGI

This is one of the most important supply chain KPIs for our organization to monitor. This KPI provides a barometer for the health of our organization because it shows how quickly we are able to move inventory. To formulate this KPI, calculate the cost of inventory sold during the period and divide the balance left over at the end of the year. A high inventory turnover rate is preferred, although it is important to compare our turnover rate to other organizations within the same industry.

Objective: To increase inventory turnover

$$\text{Formula} = \frac{\text{Sales}}{(\text{Opening Stock} + \text{Closing Stock})/2}$$ (In here greater value indicates better)

July 2023

$$\text{Quantity} = \frac{116055}{(36082+50784)/2} = 2.67$$

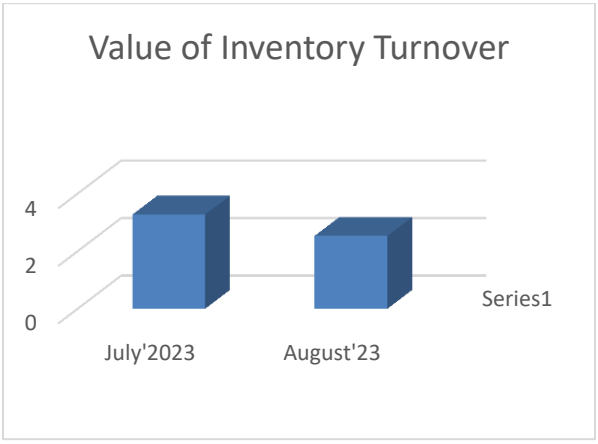
August 2023

$$\frac{111178}{(50784+55408)/2} = 2.09$$



July 2023 **August 2023**

$$\text{Value} = \frac{280709111}{(70070036+101129005)/2} = 3.27 \qquad \frac{268456366}{(101129005+110703078)/2} = 2.09$$



4.3 Perfect Order Rate of MGI

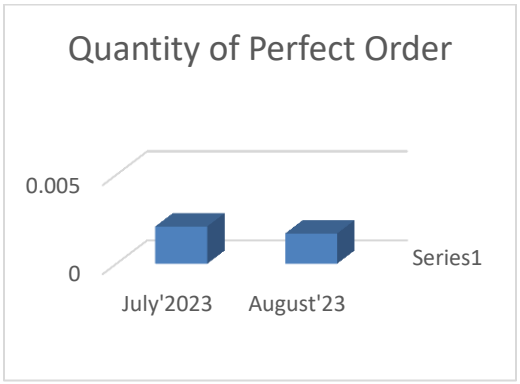
This inventory KPI is closely related to customer satisfaction as it measures our ability to put together a "perfect" order. This means shipping without damage, delivering the shipment on time, invoicing the order correctly, and ensuring the accuracy of the order. This metric will tell us a lot about the efficiency of our warehouse and the ability of our organization to meet (and exceed) customer expectations. Understanding this supply chain KPI is essential for gauging the efficiency and effectiveness of our organization.

Objective: To achieve better performance by reducing error

Formula= $\frac{\text{Cancel DO}}{\text{Total Customer Order}}$ (In here lesser value indicates better)

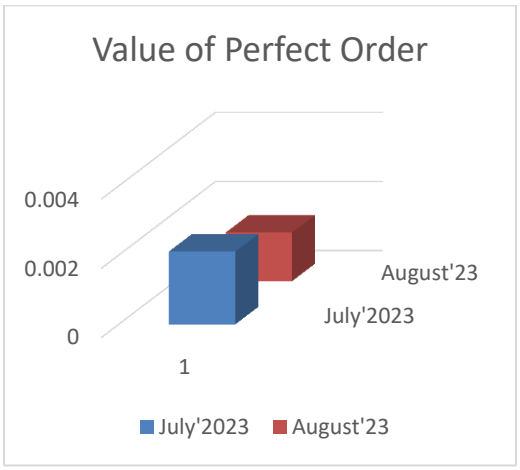
July 2023 **August 2023**

Quantity (Ctn) = $\frac{250}{118556}$ = .002 (.2%) $\frac{215}{121202}$ = .0017 (.17%)



July 2023 **August 2023**

Value = $\frac{607100}{286764328}$ = .0021 (.21%) $\frac{520260}{292636930}$ = .0017 (.17%)



4.4 Inventory to sales ratio of MGI

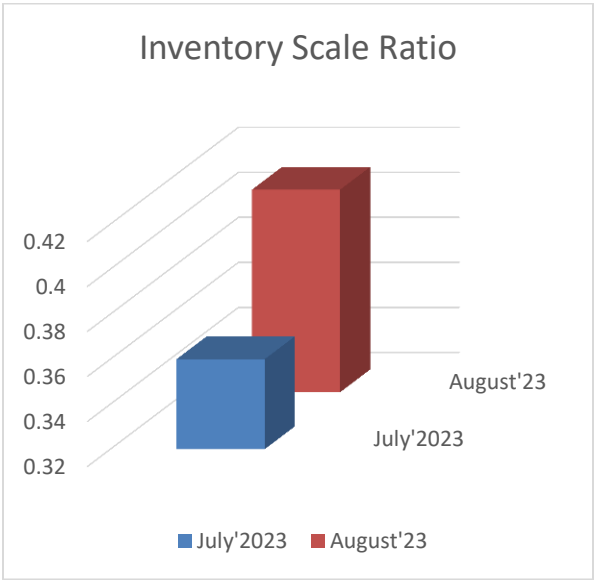
This inventory KPI measures the ratio of in-stock items versus the amount of sales orders we are filling. Inventory to sales is a good barometer for the performance of our organization, providing us with a strong indicator of the economy. The challenge with this supply chain KPI is identifying a ratio that reflects our goals and industry norms.

Objective: To maintain stability with regards to prevailing economic conditions.

Formula = $\frac{\text{Total Inventory Value}}{\text{Total Sales Value}}$ (In here Greater Value indicates Better)

July 2023 **August 2023**

Value = $\frac{101129005}{280709111}$ = .36 (36%) $\frac{110703078}{268456366}$ = .41 (41%)



4.5 Rate of Return (MGI)

This supply chain metric looks at the rate that items are returned to us after they have been shipped. The key to this metric is providing a breakdown for the reasons why items are returned, so we can identify trends and reduce our rate of return ratio. The example below provides a chart

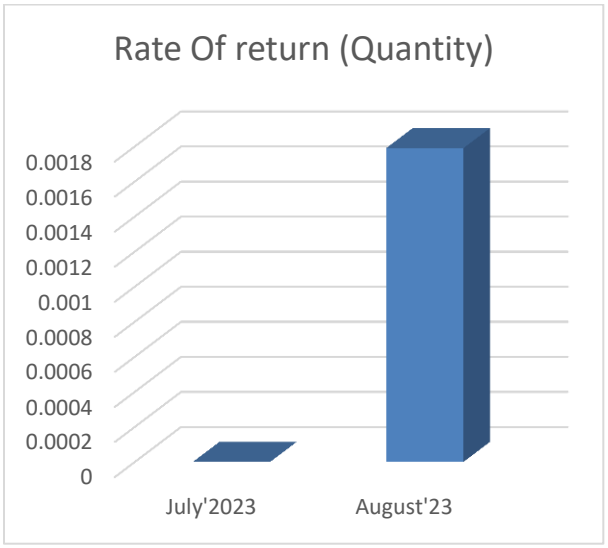
that compares reasons for returning items, but this inventory metric also gives well with the perfect order rate KPI

Objective: To reduce rate of return

$$\text{Formula} = \frac{\text{Total Items Return}}{\text{Total Items Shipped}}$$ (In here Lesser Value Indicates Better)

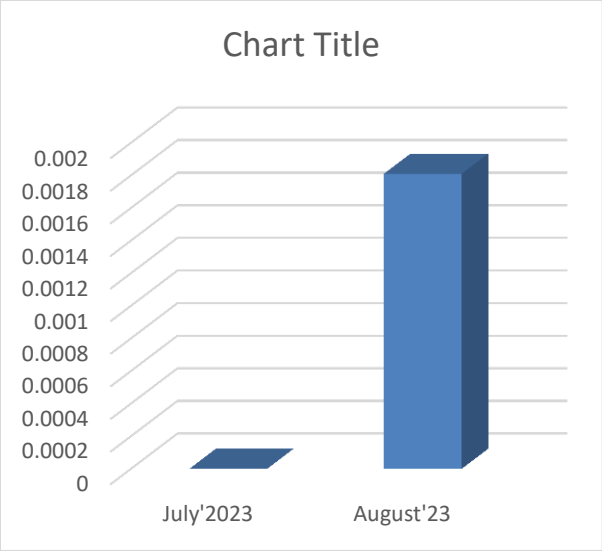
July 2023 **August 2023**

$$\text{Quantity (Ctn)} = \frac{0}{116055} = 0 \qquad \frac{2}{111178} = .00179$$



July 2023 **August 2023**

$$\text{Value} = \frac{0}{280709111} = 0 \qquad \frac{4864}{268456366} = .00181$$



4.6 Elements of Supply Chain Management

Supply chain management involves coordinating activities across the supply chain. Central to this is taking customer demand and translating it into corresponding activities at each level of the supply chain. The key elements of supply chain management are listed in the following table

Element	Typical Issues
Customers	Determining what products and / or services customers want.
Forecasting	Predicting the quantity and timing of customer demand.
Design	Incorporating customers, wants, manufacturability, and time to Market.
Capacity Planning	Matching supply and demand.
Processing	Controlling quality, scheduling work.
Inventory	Meeting demand requirements while managing the costs of holding inventory.

Purchasing	Evaluating potential suppliers, supporting the needs of operations on purchased goods and services.
Suppliers	Monitoring supplier's quality, o- time delivery, and flexibility, maintaining supplier relations.
Location	Determining the location of facilities.
Logistics	Deciding how to best move information and materials.

4.7 Supply Chain Management Model

The supply chain management model in Figure 1-1 viewed as a pipeline shows the scope of this definition. It is important to note that supply chain management is about the co-ordination of product flows across functions and across companies to achieve competitive advantage and profitability for the individual companies in the supply chain and the supply chain members collectively.

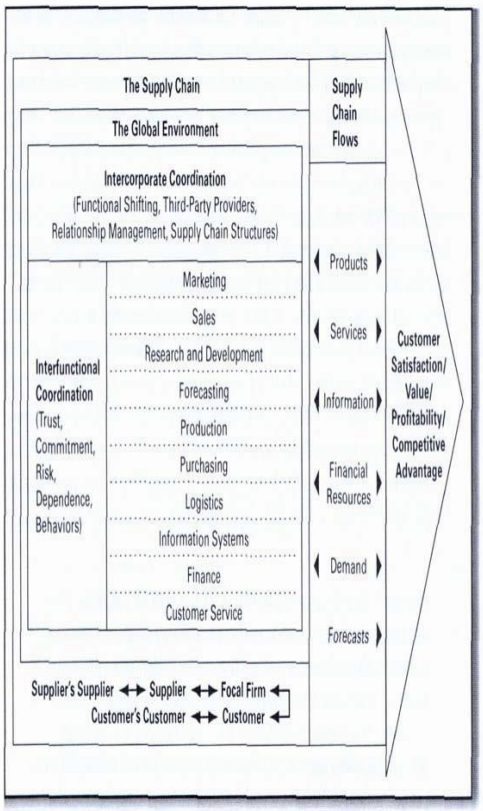


Figure 1-1 A Model of Supply Chain Management

4.8 Process Measures

Three major processes related to supply chains are customer relationship, order fulfillment, and supplier relationship. It is important to monitor the performance these internal processes as well three major processes related to supply chains are customer relationship, order fulfillment, and supplier relationship. It is important to monitor the performance these internal processes as well.

Supply chain process measures:

Customer Relationship	Order Fulfillment	Supplier Relationship
1. Percent of orders taken accurately. 2. Time to complete the order placement process. 3. Customer satisfaction with the order placement process.	1. Percent of incomplete orders shipped. 2. Percent of orders shipped on tie. 3. Time to fulfill the order. 4. Percent of botched services of returned items. 5. Cost to produce the service of item. 6. Customer satisfaction with the order fulfillment process. 7. Inventory levels of work-in-process a finished goods.	1. Percent of supplier's deliveries on time. 2. Suppliers lead times. 3. Percent defects in services and purchased materials. 4. Inventory levels of suppliers and purchased components.

4.9 Successful Supply Chain Management: Required Steps

Integrating information is the first step in supply chain management. You must then analyze this information to determine which actions to take within the context of automated business processes. Furthermore, to be most effective this information should automatically trigger a corresponding product transition. The tight coupling of execution and decision-making is an essential ingredient to effective supply chain management.

Today's information technologies remove communication barriers, enabling an improved flow of information among all members of the supply chain. Early adopters of these technologies have intensified the competitive marketplace in which all businesses must now operate.

The most successful companies realize they need a step-by-step approach to chart a business's course toward high-performance supply chain management. Those steps include:

- Achieving execution excellence by fully automating and optimizing business practices.
- Extending the enterprise to embrace all members of the supply chain.

- Integrating business systems with those of customers, suppliers, and partners to create a common information foundation.

- Deploying real-time decision support to increase responsiveness.

- Investing in re-educating and re-orienting employees, vendors, and other members of the supply chain on the practices needed to optimize business processes.

- Making a company-wide commitment to creating and managing a more complex organization capable of tackling global business issues.

Effective coordination and trust based relationship among partners is the key to supply chain success. To achieve strong bond resulting from effective coordination, supply chain professionals should focus on the following:

- Obtain top management commitment to coordinate with supply chain partners.
- Devote resources for coordination.
- Align incentives and goals for all partners.
- Improve productivity by reducing duplication or through effective efforts at appropriate stages.
- Design effective conflict resolution mechanisms.
- Focus on effective communication at all stages in supply chain.
- Use technology to improve connectivity in supply chain.
- Share the benefits of coordination equitably among the partners.

4.10 Present Key Activities of MGI SCM Department

4.10.1 Procurement

Raw materials and packaging materials inventory purpose continuously coordinate with local and foreign trade department.

As per product requirements based on market demand, analysis has been accomplished to find out exact quantity within the right time of raw materials and packaging materials. This analysis report submitted to the top level management.

After getting the approval from management, based on requirements advised to raise SPR.

4.10.2 Inventory

Manage margins with a clear view into inventory costs, turn rates and inventory profitability

Effectively and efficiently meet customer demand, helping drive and maintain superior customer service levels.

4.10.3 Production

Based on forecast production plan provide to the factory and meet demand from the stock.

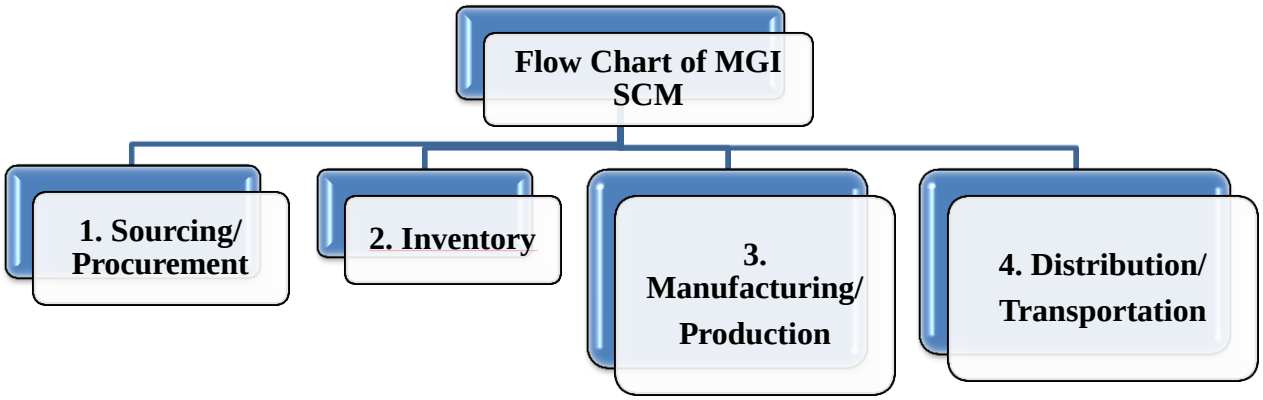
Ability to maintain low but sufficient covers stock to counter the challenge of market demand.

4.10.4 Planning

- Strategy for managing all resources that goes toward meeting customer demand for their product & services.
- Utilize resources at optimum level to achieve efficiency through inventory and production planning.
- Distribution planning to improve utilization levels of transportation.
- Depot management has done in a planned way to achieve efficiency and effectiveness.
- Optimize collaboration with suppliers, customers and partners.
- Increase transparency and reaction capabilities in the value creation chain.

4.10.5 Order processing & Distribution

- Co-ordinate with receipt order from customer, take immediate steps for approval & make DO for fast delivery.
- Organize transport program, so that it is different in cost & service
- Use third party transport as well as own vehicle to distribute the product
- Abnormal situation like strike, hartal we use rail and cargo trailer to ensure smooth delivery process
- Developed cost effective distribution and kept undelivered in minimum status
- Instant decision has done to revised transport rate during the hartal to agree third party for smooth delivery, that's reduced use of company vehicle.
- Transport optimization through analysis of data.



4.10.6 Depot mgt.

1. Company owns 56-nos covered vehicle in total in depot for their daily distribution operation.

2. As per critical moment logistic support given to depot when required.

3. Third party transport contract and negotiation of rate has been done

4. Inauguration new depot in Tongi and Jessore.

5. Achieve efficiency and cost effective operation of depot.

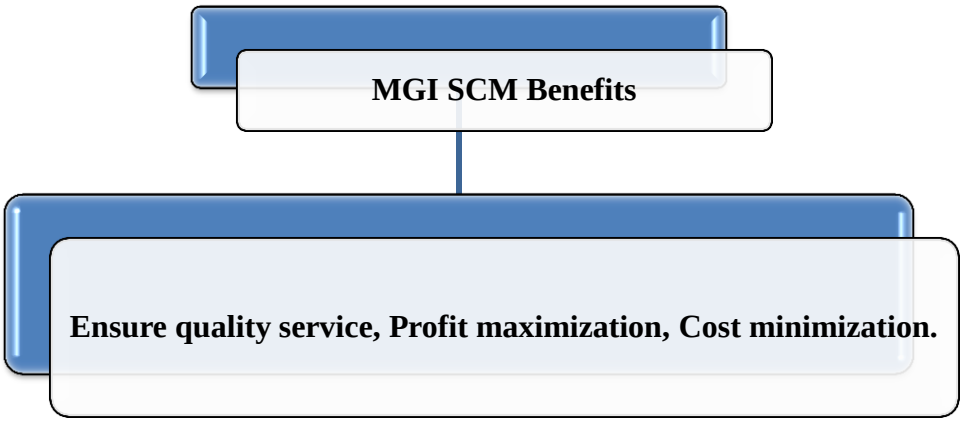
6. Damage return from depot.

7. Depot productivity increase (67 % by value) through increase sales order at depot and delivery support. **Annexure-05**

8. Small amount sales order taken from depot and distributed from there to minimize the transport cost and leading time.

4.10.7 Others

Cross functional work with Accounts, Sales and Brand department for smooth business operation. Support on strategic decision by collecting and providing relevant information to retain old customer and gain competitive advantage over rivals.



4.11 KPI's of MGI

More than ever before, business leaders recognize that top-performing organizations are driven by data. Management gurus have long been advocates of measuring, monitoring, and reporting on the numbers that matter most.

In the domain of supply chain management, a body of best practices has emerged that enables this kind of analysis to assess the performance of internal processes, suppliers, and service providers.

Here are the top 10 supply chain management KPIs that are used MGI to run a more effective, efficient, and prosperous MGI organizations.

4.11.1 Cash to Cash Cycle Time

The cash to cash cycle time represents the average length of time required to convert resources into cash flows, starting from the moment you pay for inventory to the time you collect money for the sale of that inventory. You measure it using three common financial metrics, namely, days of inventory (DOI), days of payables (DOP), and days sales outstanding (DSO). Add DOI and DOP, then subtract DSO to arrive at cash to cash cycle time.

The smaller that number is, the better. Some companies have even managed to achieve a negative cash to cash cycle time. Fresh Ceramics famously reached an average of around negative 70 days over a four-year period, meaning that they consistently collected the funds for the goods they sold over two months before they ever paid for those goods.

Although this may seem more like a financial metric, the cash to cash cycle time says a great deal about the efficiency of MGI's supply chain management practices.

4.11.2 Perfect Order Rate

This metric is quite simple to understand, although it can be a bit difficult to track on a routine basis simply because it incorporates a handful of variables related to processing and delivering orders to MGI's customers. Briefly stated, the perfect order rate represents the percentage of orders that are delivered in full, on time, without incident, and with documentation that is accurate and complete. Many organizations look to this as the single most important supply chain key performance indicator (KPI) because it directly impacts on customer satisfaction.

4.11.3 Fill Rate

Another important metric that impacts of customer satisfaction is the fill rate. This represents the percentage of orders that are successfully completed with the first shipment. In other words, it is the percentage of orders that do not require a second, third, or fourth shipment, and so on.

In fact, many supply chain managers break this metric down into several additional metrics, namely the Line Fill Rate (number of sales order lines fulfilled in the first shipment), and the Unit Fill Rate (the quantity of each order line that is fulfilled, relative to the total quantity ordered.) The Order Fill Rate and Line Item Fill Rate metrics call for a binary "yes or no" indication, followed by a quick determination of the percentage of "yes" answers (that is, what percentage were completely filled on the first order). The Unit Fill Rate percentage is expressed as the quantity fulfilled as a percentage of total quantity ordered.

4.11.4 Customer Order Cycle Time

The customer order cycle time refers to the average amount of time (in days) that lapses between the date the customer places an order and the actual delivery date. If the cash to cash cycle is increasing but customer order cycle time is decreasing or staying the same, then there may be issues with the management of payables, receivables, or inventory.

4.11.5 Inventory Days of Supply

Historically, MGI's managers have shown a strong preference for maintaining minimal inventory levels. This reflects a tendency toward lean management, toward the most effective use of capital resources. If your money is tied up in inventory, sitting on the shelf in the warehouse, then it cannot be put to use elsewhere. Over the past 18 months, there has been a shift in thinking, due in large part to supply chain disruptions that came about as a result of the coronavirus pandemic.

Nevertheless, a low value for this metric is a strong indicator that you are running a lean operation. To calculate inventory days of supply, start with inventory on hand and divide by your average daily usage of inventory. As noted, there may be some legitimate business reasons for maintaining higher levels of inventory, especially if further supply chain disruption is to be expected. However, maintaining a low number for this KPI is generally a desirable goal.

4.11.6 Inventory Turnover

Inventory turnover is closely related to inventory days of supply, insofar as both metrics address the question of whether the company is maintaining more inventory than it needs. To calculate this KPI, start with the cost of goods sold for a specified period (e.g. for a month, quarter, or year.) Then divide by your average inventory level over the same period (which can be calculated by adding your beginning inventory to your ending inventory and dividing the result by two.) In this case, a high value generally means that you're managing inventory effectively and efficiently.

This is one of the most important supply chain KPIs for our organization to monitor. This KPI provides a barometer for the health of our organization because it shows how quickly we are able to move inventory. To formulate this KPI, calculate the cost of inventory sold during the period and divide the balance left over at the end of the year. A high inventory turnover rate is preferred, although it is important to compare our turnover rate to other organizations within the same industry.

4.11.7 Reasons for Return

Let's face it: customer returns wreak havoc on your supply chain practices. They cost MGI's organizations valuable time and money, and they are usually correlated with a negative customer experience. Simply put, reasons for return refers to a metric that describes the factors that result in the return of product from customers. To track reasons for return, simply break down your customer returns into common categories, such as "defective item," "damaged product," "product no longer needed," and so on.

An unusually high value in one or another category is indicative of a problem. For example, if the percentage of returns prompted by "product no longer needed" spikes, then it is likely you'll see a corresponding drop in on-time deliveries. If a large number of returns came about due to a defective product, then you may have some serious quality issues.

4.11.8 On-Time Delivery

In a fast-moving world where virtually every business is struggling to meet customer demand amid supply-chain uncertainty, rapid delivery times are more important than ever. For both commercial customers and consumers, the ability to deliver products promptly is an increasingly important factor in purchasing decisions. If you can't deliver what the customer needs when they need it, they'll go somewhere else.

On-time delivery is generally measured as a percentage of orders delivered on or before the date by which they were promised. This has the benefit of being relatively simple; either you delivered the order on time, or you did not. Your on-time delivery percentage is a simple division calculation between the number of on-time orders and the total number of orders promised to customers.

4.11.9 On-Time Shipment

This one is very similar to the on-time delivery metric, with one small difference. On-time shipment measures (as the name would suggest) the percentage of orders that were *shipped* on time. Why the difference? Because variability between on-time deliveries and on-time shipments likely points to a problem with transportation and logistics. This might not be all that meaningful for companies that operate within a relatively localized geography. In an increasingly globalized economy, however, transportation and logistics are more important than ever.

4.11.10 Supply Chain Costs as a Percentage of Sales

There are a number of factors that can drive up the cost related to managing your supply chain. It's not uncommon, for example, for manufacturers to expedite shipments of incoming raw materials to ensure that they can deliver a customer order on time. When you need something fast, it generally costs more. If suppliers know that you are on a short deadline, they'll be in a position to demand higher prices for those incoming goods. Even if prices remain the same, there are usually additional costs involved with getting products shipped to you faster. While some of those costs will be incorporated into your cost of goods sold, others will simply show up as an expense item. In either case, there is a drain on profitability. Supply chain costs as a percentage of sales simply tracks the total amount of money you spend on supply chain costs as a percentage of your total sales for the same period.

Chapter 05
FINDINGS

5.1 Findings

- **SCM for Internal personnel:** In MGI there have much lacking's of Skilled SCM Experts. That's why this group facing too many Problems.

- **Communication with the supplier:** A bottom point of Supply chain management is smooth communication with suppliers at always times. There are some gap here.

- **Network channel:** A goods channel with suppliers makes benefits others in the future of others' products into the market. There have some lacking's in network channels.

- **Supply chain network at MGI:** At the beginning to finish product how to supply of manufacturer to the ultimate customer at the below point.

    - **Supplier:** A person who responded to supply raw materials, machinery, or others. In MGI too much supplier are ready to provide their goods. Some time it will be harmful to choice right supplier to take right Products.

    - **Manufacturer:** Getting materials and then starting to make the final product. Here have little bit quality issue to make declare the final products.

    - **Warehouse:** A stock house of the factory that to the measurement of the present stock of materials or final goods. This is the big issue of MGI because they don't have any warehouse. They wants to make the products & sell the products.

    - **Distribution:** Circle of the channel to distribute all things at ultimate purpose. In MGI there have lacking's of own transportation.

    - **Retailer:** A nominee person who sells the final product to the consumer for making a profit. In MGI to make an enlisted retailer is very lengthy process.

    - **Customer:** Ultimate customer who buys our company product for consumption. In MGI have little bit lacking's for brandings. If branding of the products are good then customer will increased.

    - **Cost measurement:** If we make a final product, then include all costs such as materials, Shipping, Process, etc. Here in MGI they strongly follow the Cost measurement but it's have so many variants. Sometime it will very harmful to control it.

- **Back order rate**

There is no status of D.O report and challan report based **on hour**, at ERP. This report is necessary to calculate back order rate. More over if there is an option at ERP to write the

reason why the product is undelivered, which will be helpful to illustrate and take essential steps against delay.

- **Inventory Accuracy**

To count number of items physically, is not possible for us where inventory is located in factory and depot. It will be more effective if **physical quantity** recorded at ERP by hour/days. So this option should be developed at ERP.

- **Order Status**

To calculate order status, we need information of **qty of order placed** vs **qty of D.O confirm status** vs **qty of challan (shipment) status** etc in one report which is not available at ERP. It should be developed at ERP which will provide accurate direction for taking further steps.

- **Carrying cost of inventory**

We do not get any information which is related with carrying cost, through ERP. So everything which is related with carrying cost of inventory should be developed at ERP.

Chapter 06

Recommendations, Conclusion & References

6.1 Recommendations

Supply chain management in Meghna Group of Industries (MGI) should be approached in a more systematic manner based on integrated and documented processes. The various supply chain components like suppliers, manufacturers, warehouses and stores should be integrated in a single system, which makes supply chain management more effective. The team involved in the operational side on handling the supply chain should be highly trained in supply chain management function.

6.1.1 SCM training for internal personnel

Training is a way to expert a supply chain manager for smoothly working with supplier and internal purpose of the company, each employee before joining must need training and after joining need monthly training. An expert SCM always working quickly and going right decision. So, I think training to be mandatory for all SCM.

6.1.2 Build a proactive plan and roadmap

Without a proper plan and appropriate roadmap impossible to handling all work for supply chain manager, starting work before need to make a plan for working, how and which way do the work with supplier, manufacturer, operation manager and how to reach ultimate target.

6.1.3 Materials Planning

An operation manager must making a perfect materials planning for a period of time to time. Supply chain manager follow the materials planning and doing the next step. When need the materials and which way cost effect for shipment. As a result we reduce the cost for logistics and supply the materials at right time.

6.1.4 Cost planning and Justification Math

To make a cost planning with account department for justify the effective cost for us. Compare the previous price and present price for making new cost of the materials. After making the cost to decide which is perfect or not?

6.1.5 Integrate logistical processes with suppliers

No matter the size of a business, it remains important to integrate logistical processes with the suppliers for that organization. This is totally dependent on software systems, certain enterprise resources planning application. If a supplier is able to access the rate at which a business runs through its inventory, they are better able to meet any changes in demand, improving operation efficiency for both organizations.

6.1.6 Logistics mechanism comparison

Before shipping one must compare both shipment which is better for us or not. Without comparison can’t expect perfect shipping way. The logistics system such as air, sea, road etc. each important but depend on kinds of materials or agency for production of goods. So if the company earn minimum profit must need comparison each.

6.2 Conclusion

The flourish of any industry requires combined efforts and co-operation from several parties. Social, political, and macroeconomic environment play pivotal role in this regard. Though MGI is a reputed Ventured Company in the respective sector, its growth and expansion are praiseworthy. It's contributing the country and serving the nation in different ways. If it can uphold it's much toward advancement, it will be able to set a role model in our country. Meghna Group of Industries (MGI) is one of the leading business organizations. There is no doubt effective use of pricing consideration and approaches play a vital role in their success. Meghna Group of Industries (MGI) is one of the biggest & leading conglomerates of Bangladesh. With a turnover of USD 2.5 billion & asset of USD 1 billion, MGI is currently operating in about 45 companies with more than 50000+ employees, 6000+ distributors & 15000+ suppliers under its umbrella. Supply chain is basically a group of independent organizations connected together through the products and services that they separately or jointly add value on in order to deliver them to the end consumer. It is very much an extended concept of organizations which adds value to its products or services and delivers them to its customers. There are many methods in implementing SCM that can help the manufacturing companies operate their SCM efficiently. Besides that, good planning, strategy, infrastructure and management teams are necessary to improve the efficiency of SCM implementation and achieve the competitive advantages. From this report it is clear that Meghna Group of Industries performance could be improved through effectively implements SCM and reduce the problems that occurred in the SCM implementation. Through the thesis paper it is clear that Meghna Group of Industries (MGI) is an established, significant and highly respected in term of the product quality and very much concerned about the Supply chain management practices.

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Web Site

www.mgi.org
http://www.scmworld.com/home
www.investopedia.com.
www.techopedia.com.
http://scm.ncsu.edu/scm-articles/article/what-is-supply-chain-management

Appendix

5597

Price Comparison

Purchasing Company : Sonargaon Steel Fabricate Ltd

Collective Number : RAJON541

Plant Name & Code : SSFL Plant(5301)

Item No.	Material Code & Description	UOM	Qty.	Vendor Code / Name 2203613 : B M Fire International Curr. BDT			Vendor Code / Name 2200413 : Bengal International Agencies Curr. BDT			Last Purchase Details	Present Stock
				RFQ No. 2000333608			RFQ No. 2000333609				
				Unit Price	Total Price	Deli.Date	Unit Price	Total Price	Deli.Date		
00010	1900388 - Fire Extinguisher Abc Powder Refield 5Kg	PC	8.000	400.00	3200.00	29.07.2023	500.00	4000.00	29.07.2023	Company: 5300 - SSFL Rate: 400.00 BDT Quantity: 8.000 26.06.2023 Date: 26.06.2023 Brand:	0.000
Where to be Used				Will Be Used Safety Purpose							
VAT/AIT/HS Code											
Warranty/Brand/Country of Origin											
00020	1317256 - ABC Valve	PC	6.000	250.00	1500.00	29.07.2023	250.00	1500.00	29.07.2023	Company: 1700 - MPPL Rate: 250.00 BDT Quantity: 1.000 18.04.2022 Date: 18.04.2022 Brand:	0.000
Where to be Used				Will Be Used Abc Fire Extenguisher							
VAT/AIT/HS Code											
Warranty/Brand/Country of Origin											
00030	1904154 - Fire ABC Type-5kg Capacity Mono Meter	PC	8.000	120.00	960.00	29.07.2023	130.00	1040.00	29.07.2023	Company: 1600 - TPML Rate: 150.00 BDT Quantity: 4.000 03.04.2023 Date: 03.04.2023 Brand:	0.000
Where to be Used				Will Be Used Abc Fire Extenguisher							
VAT/AIT/HS Code				TDS Including			TDS Including				
Warranty/Brand/Country of Origin											
Payment Terms				30 Days			30 Days				
Carrying/Labor/Trade Terms				Carrying bear by MGI Vehicle			Carrying bear by MGI Vehicle			Sum Total with Lowest Price	5,660.00

Prepared By : Md. Sakhawat Hossain	Checked By :	Recommended By :	Forwarded By :	Approved By :

Printing Date & Time : 23.07.2023 & 17:18:42

Page 1 Of 1

Purchasing Company : Meghna Shipbuilders & Dockyard Ltd

Collective Number : RAJON537

Plant Name & Code : MSDL Ship&Dock Plant-Ana.bazar(3901)

Item No.	Material Code & Description	UOM	Qty.	Vendor Code / Name 2203613 : B M Fire International Curr. BDT			Vendor Code / Name 2200413 : Bengal International Agencies Curr. BDT			Last Purchase Details	Present Stock
				RFQ No. 2000332845			RFQ No. 2000332846				
				Unit Price	Total Price	Deli.Date	Unit Price	Total Price	Deli.Date		
00010	1902577 - Fire Extinguisher Foam-50L,With Trolley	PC	2.000	18000.00	36000.00	25.07.2023	28000.00	56000.00	25.07.2023	Company: 5500 - MPVC Rate: 18000.00 BDT Quantity: 3.000 30.05.2023 Date: 30.05.2023 Brand:	0.000
Where to be Used				Use for MSDL Hull No: 106 <(>&<)> 108.							
VAT/AIT/HS Code							TDS Including				
Warranty/Brand/Country of Origin											
00020	1900280 - CO2 Fire Extinguisher-5Kg	PC	6.000	3300.00	19800.00	25.07.2023	3700.00	22200.00	25.07.2023	Company: 5400 - MLPG Rate: 3600.00 BDT Quantity: 15.000 06.06.2023 Date: 06.06.2023 Brand:	2.000
Where to be Used				Use for MSDL Hull No: 106 <(>&<)> 108.							
VAT/AIT/HS Code											
Warranty/Brand/Country of Origin											
00030	1331695 - Co2 Fire Extinguisher-6 Kg	PC	8.000	5000.00	40000.00	25.07.2023	0.00	0.00	25.07.2023	Company: 3900 - MSDL Rate: 5300.00 BDT Quantity: 12.000 03.01.2023 Date: 03.01.2023 Brand:	0.000
Where to be Used				Use for MSDL Hull No: 106 <(>&<)> 108.							
VAT/AIT/HS Code											
Warranty/Brand/Country of Origin											
00040	1903490 - ABC Dry Powder Fire Extinguisher-6Kg	PC	4.000	2200.00	8800.00	25.07.2023	2300.00	9200.00	25.07.2023	Company: 3900 - MSDL Rate: 2000.00 BDT Quantity: 6.000 03.01.2023 Date: 03.01.2023 Brand:	0.000
Where to be Used				Use for MSDL Hull No: 106 <(>&<)> 108.							
VAT/AIT/HS Code				TDS Including			TDS Including				
Warranty/Brand/Country of Origin											
Payment Terms				30 Days			30 Days			Sum Total with Lowest Price	104,600.00
Carrying/Labor/Trade Terms				Carrying bear by Supplier			Carrying bear by Supplier				

Prepared By : Rekha Sultana | Checked By : | Recommended By : | Forwarded By : Sr. ED Sir Pls | Approved By : CMD Sir

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Page 2 Of 2

Page 2 Of 2

Meghna Ceramic Industries Ltd

Purchase Order

To
Head of Sales & Marketing,
S P Trading Corporation,
Baznar,Sibpur Narsingdi 1620.

Delivery Address:
MCIL Plant,
Ashariar Char,Meghna Ghat Sonargaon 1440.

Vendor ID	: 2217100
Purchase Order No.	: **4000251016**
Purchase Order Date	: 15.04.2023
PO Type	: Local
Purchase Req.	: 1000144877

Dear Sir,

We are pleased to place the order for supply of the following materials:

SL	Material Code	Material Name	Delivery Date	Quantity	UOM	Unit Price	Base Value	Additional Charges	Gross Amount
1	1001481	Modhupur Clay	30.04.2023	500,000	KG	1.800000	900,000.00	0.00	900,000.00

Grand Total (In BDT) 900,000.00

Amount In Words : Nine Lakh Taka Only

Remarks : Net price include TDS

Payment Terms:

Terms & Conditions:
1. Delivery Challan must be complied by PO Number, Item Code and Delivery Location.
2. Invoice must be complied by PO Number, Item Code, Delivery Challan and Goods Received Number.
3. Material should be packed properly to avoid any Damage during Transit.
4. Part Shipment/Part Delivery & Part Payment is allowed.
5. Supplier will replace if the Product does not match with approved Sample/ Specification Mentioned in the PO.
6. Delivery schedule can be changed as per mutual understanding as directed by Plant/HO Representative.
7. Invoice will be paid if Quality & Quantity Received/ Accepted by Store.
8. The Company Preserves the Right to cancel this Purchase Order at any time without specifying any Reason.

Shiful Hasan	Mahamuda Lucky	Md.Abdur Rouf
Prepared By	Checked By	Approved By

Meghna Ceramic Industries Ltd

Purchase Order

To
Head of Sales & Marketing,
Trusttech Computer & Networks,
Computer City Center,Shop-526 Dhaka 1205.

Delivery Address:
MCIL Plant,
Ashariar Char,Meghna Ghat Sonargaon 1440.

Vendor ID	: 2206505
Purchase Order No.	: **4000251098**
Purchase Order Date	: 16.04.2023
PO Type	: Local
Purchase Req.	: 1000179560

Dear Sir,
We are pleased to place the order for supply of the following materials:

SL	Material Code	Material Name	Delivery Date	Quantity	UOM	Unit Price	Base Value	Additional Charges	Gross Amount
1	2301070	Epson Refill-664-Black	17.04.2023	5.000	PC	675.000000	3,375.00	0.00	3,375.00
2	2300430	Epson-L310(664),Black & Colour	17.04.2023	3	SET	2700.000000	8,100.00	0.00	8,100.00

Grand Total (In BDT) 11,475.00

Amount In Words : Eleven Thousand Four Hundred Seventy Five Taka Only

Remarks : Use For MCIL-All Department. Color Printer

Payment Terms:

Terms & Conditions:
1. Delivery Challan must be complied by PO Number, Item Code and Delivery Location.
2. Invoice must be complied by PO Number, Item Code, Delivery Challan and Goods Received Number.
3. Material should be packed properly to avoid any Damage during Transit.
4. Part Shipment/Part Delivery & Part Payment is allowed.
5. Supplier will replace if the Product does not match with approved Sample/ Specification Mentioned in the PO.
6. Delivery schedule can be changed as per mutual understanding as directed by Plant/HO Representative.
7. Invoice will be paid if Quality & Quantity Received/ Accepted by Store.
8. The Company Preserves the Right to cancel this Purchase Order at any time without specifying any Reason.

Khalead Mahamud	Mahamuda Lucky	Bul Bul Ahamed
Prepared By	Checked By	Approved By

Sonargaon Salt Industries Ltd.

CHALLAN

Plant Name	: SSIL Plant (2601)	Challan No.	: 8000460968
Plant Address	: Jhaw Char,Meghnaghat,Sonargaon Sonargaon Narayanganj 1430	Challan Date	: 18.06.2023
		Vehicle/Vessel No.	: TRA--41
Customer Id	: 5690	Driver Name	: ROMAN
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01752471273
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1, Gulshan Dhaka 1212	Transporter	: MTRC PLT
		Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No. & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045998	17.06.2023	SALFP001K25P	Fresh Super Premium Salt-1Kg (25Pc)	BAG	27.000	0.675
					Total	**27.000**	

CUSTOMER COPY

Received by MCL Store 18.06.23

Delivered By **Authorized By** **Received By**

Printing Date and Time : 18.06.2023 & 17:08:58

Reference No : 7900207088

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212, Factory: Meghnaghat, Sonargoan, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

Tanveer Food Ltd. (Spice)

CHALLAN

Plant	: STFL Spice Plant (2901)	Challan No.	: 8000460356
Plant Add	: Meghnaghat	Challan Date	: 18.06.2023
	Sonargaon Narayanganj 1440	Vehicle/Vessel No.	: TA-51
Customer Id	: 5690	Driver Name	: NAHIM ISLAM
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01834375771
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1,	Transporter	: MTRC PLT.
	Gulshan Dhaka 1212	Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045990	17.06.2023	SPCFCH200G24P004	Fresh Chilli Powder Jar-200G(24P)SpoonPR 3+672	PC	675.000	0.141
2	4500045990	17.06.2023	SPCFTU200G24P005	Fresh Turmer Powder Jar-200G(24P)SpoonPR 3+672	PC	675.000	0.141
3	4500045990	17.06.2023	SPCFCO20OG24P004	Fresh Corian Powder Jar-200G(24P)SpoonPR 3+672	PC	675.000	0.141
4	4500045990	17.06.2023	SPCFCU100G24P	Fresh Cumin Powder-SIC 24X100G 3+672 (675)	PC	675.000	0.068
5	4500045990	17.06.2023	SPCFBM025G48P	Fresh Beef Masala-25Gm,48Pc 3+672	PC	675.000	0.01
6	4500045990	17.06.2023	SPCFROAMBB35G48P	Fresh Roast Masala Bag-In-Box-48X35g 3+672	PC	675.000	0.024
7	4500045990	17.06.2023	SPCFBRBB40G48P	Fresh Biryani Masala Bag-In-Box-40G,48PC 3+672	PC	675.000	0.027
8	4500045990	17.06.2023	SPCFMETCMBB48X100G	Fresh Meat Curry Masala BIB 48X100g (672) 672+3	PC	675.000	0.068
9	4500045990	17.06.2023	SPCFGMSIS40G48P	Fresh Garam Masala SIC 48x40g 3 (672)	PC	675.000	0.027
					Total	6075.000	

CUSTOMER COPY

Received by MCIL 18.06.23

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan- 01, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

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Printing Date and Time : 18.06.2023 & 16:46:00

Meghna Noodles and Biscuit Factory Ltd

CHALLAN

Plant Name	: MNBL Plant (5201)	Challan No.	: 8000459413
Plant Address	: Meghnaghat Sonargaon Narayanganj 1440	Challan Date	: 18.06.2023
		Vehicle/Vessel No.	: DHAKA-METRO-MA-55-1122
Customer Id	: 5690	Driver Name	: KHAIRUL
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01724292464
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1, Gulshan Dhaka 1212	Transporter	: MTRC PLANT
		Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045999	17.06.2023	SNKFBBQCNCR130G410	Fresh BBQ Chanachur 130g (4x10)	BAG	16.875	0.088
2	4500045999	17.06.2023	COKFENER80X24	Fresh Energy Cookies 80gX24PC	CAR	28.125	0.054
3	4500045999	17.06.2023	BISFFFSCPA18GX48	Fresh FunFill Sndwch Crm Pineapple18gX48	CAR	14.063	0.012
4	4500045999	17.06.2023	BISFFFSCCH44GX24	Fresh FunFill Sndwch Crm Chocolate44gX24	CAR	28.125	0.030
5	4500045999	17.06.2023	NODFINSM4X62GX36	Fresh Inst Noodles Masala 4(62GX36)	CAR	18.750	0.167
6	4500045999	17.06.2023	BISFHCSALT80GX24	Fresh Healthy Choice Salted 80gX24PC	CAR	28.125	0.054
					Total	134.063	

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Received by
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MCIL Store

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan- 01, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

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MEGHNAGROUP OF INDUSTRIES

UNIT : SFDL

Head office : Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212
E-mail : info@meghnagroup.biz, Web : www.meghnagroup.biz,
Telephone No. 9887545, 9889490, 9884791, 9884856, Fax : 880-2-9884896
Factory :Meghnaghat, Sonargaon, Narayanganj.

GATE PASS/CHALLAN

No. 86

Date : 18/06/23

Party Name : Meghna ceramic industries Ltd.

Address :

Vehicle/Vessel No : Truck Mobile No : Roman 01766769134

Money Receipt No : Date :

CHECKED DATE TIME

SL	Material Code	Material Name	Unit	Qty	Remark
1	2000014 / 2000126	Wtg Wrapper / Wtg PP Bag-Big Size			
2	2000126 / 2000135	Wtg PP Bag-Big Size / Wtg Plastic Bag-Big			
3	2000140 / 2000183	Wtg Plastic Sheet / Wtg Plastic Floor Mat			
4	2000072 / 2000071	Wtg Jute Bag-Big / Wtg Jute Bag-Small			
5	2000061 / 2000062	Wtg Bottle / Wtg Bottle Cap			
6	2000112 / 2000196	Wtg Wood / Wtg Jumbo Bag			
7	2000119 / 2000154	Wtg Plastic Drum (Big) / Wtg Empty Drum-30kg			
8	2000012 / 2000028	Wtg tin / Wtg Iron Piece			
9	2000148 / 2000095	Wtg Iron-Babri / Wtg Tripal			
10	2100032 / 2 0188	Scp Burn Copper Wire / Scp MS Rod			
11	Fresh Formalina (Sujit)			56 Bags	03 Piece
12					

Received by Store 18.06.2023

The goods were allowed to be taken outside the factory

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তানভীর ফুড লিমিটেড (মসলা)

মেঘনা গ্রুপ অব ইন্ডাষ্ট্রিজ এর একটি প্রতিষ্ঠান
মেঘনা ঘাট, সোনারগাঁও, নারায়ণগঞ্জ।

ক্রমিক নং 4292

ডেলিভারী চালান

তারিখ : 24/6/23

১। পার্টি/(ক্রেতার) নাম ঃ

২। পার্টি/(ক্রেতার) ঠিকানা ঃ

৩। ডেলিভারী আদেশ নং ডিও তারিখ ঃ

৪। ট্রাক নং ডাইভারের নাম ঃ

ক্রঃ নং	পণ্যের বিবরণ	ব্যাগ	পিছ	কেজি
১।	হলুদ ১০০০ গ্রাম			
২।	হলুদ ৫০০ গ্রাম			
৩।	হলুদ ২০০ গ্রাম			
৪।	হলুদ ১০০ গ্রাম			
৫।	হলুদ ৫০ গ্রাম			
৬।	মরিচ ১০০০ গ্রাম			
৭।	মরিচ ৫০০ গ্রাম			
৮।	মরিচ ২০০ গ্রাম			
৯।	মরিচ ১০০ গ্রাম			
১০।	মরিচ ৫০ গ্রাম			
১১।	ধনিয়া ৫০০ গ্রাম			
১২।	ধনিয়া ২০০ গ্রাম			
১৩।	ধনিয়া ১০০ গ্রাম			
১৪।	ধনিয়া ৫০ গ্রাম			
১৫।	জিরা ১০০ গ্রাম			
১৬।	জিরা ৫০ গ্রাম			
১৭।	গরম মসল্লা ৪০ গ্রাম			
১৮।				
১৯।				
২০।				

24.06.23
প্রস্তুত কারক

Received by

24.06.23
ডেলিভারী অফিসার

নিরাপত্তা কর্মকর্তা

24.06.23
গ্রহীতার স্বাক্ষর

ষ্টোর/ডেলিভারী সুপারভাইজার

Tanveer Food Ltd. (Milk)

CHALLAN

Plant Name	: TFLM Plant (3001)	Challan No.	: 8000459561
Plant Address	: Meghnaghat	Challan Date	: 18.06.2023
	Sonargaon Narayanganj 1440	Vehicle/Vessel No.	: T 41
Customer Id	: 5690	Driver Name	: ROMAN
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01766676934
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1,	Transporter	: MGI TRANS
	Gulshan Dhaka 1212	Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No. & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045995	17.06.2023	MLKF0250G24P	Fresh Full Cream Milk Powder-250 Gm (24 Pkt)	CAR	28.125	0.169
					Total	28.125	

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Printing Date and Time : 18.06.2023 & 12:33:36

Reference No : 7900205665

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

Sonargaon Flour & Dal Mills Ltd

CHALLAN

Plant Name	: SFDL Dal Plant (1902)	Challan No.	: 8000459536
Plant Address	: Meghnaghat	Challan Date	: 18.06.2023
	Sonargaon Narayanganj 1440	Vehicle/Vessel No.	: T 41
Customer Id	: 5690	Driver Name	: ROMAN
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01766676934
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1,	Transporter	: MGI TRANS
	Gulshan Dhaka 1212	Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No. & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500046001	17.06.2023	LENFML500G48	Fresh Deshi Mashur Dal-500 Gm(48 Pc)	BAG	14.063	0.338
					Total	14.063	

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Printing Date and Time : 18.06.2023 & 12:32:36

Reference No : 7900205659

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

Tasnim Condensed Milk Ltd.

CHALLAN

Plant Name	: TCML Plant (2801)	Challan No.	: 8000459790
Plant Address	: Meghnaghat	Challan Date	: 18.06.2023
	Sonargaon Narayanganj 1440	Vehicle/Vessel No.	: TA-41
Customer Id	: 5690	Driver Name	: ROMAN
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01752471273
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1,	Transporter	: MTRC PLT
	Gulshan Dhaka 1212	Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No. & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045994	17.06.2023	SCMN400G	No.1 Sweetened Condensed Milk 400 GM	CAR	14.063	0.270
					Total	14.063	

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Meghna Group of Industries

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Printing Date and Time : 18.06.2023 & 16:13:53
Reference No : 7900206715

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

Meghna Sugar Refinery Ltd

CHALLAN

Plant Name	: MSRL Plant (5101)	Challan No.	: 8000460491
Plant Address	: MEZ,Meghnaghat	Challan Date	: 18.06.2023
	Sonargaon Narayanganj 1440	Vehicle/Vessel No.	: TRUCTOR 41
Customer Id	: 5690	Driver Name	:
Customer Name	: Meghna Ceramic Industries Ltd	Cell No.	: 01627978294
Customer Address	: Fresh Villa,House-15,Rd-34,Gulshan 1,	Transporter	: MTRC PLT
	Gulshan Dhaka 1212	Customer PO No. & Date	:
Delivery Site	: Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan -		
		Shipment No. & Date	: , Dated - 00.00.0000

SL	STO No.	STO Date	Material Code	Material Description	UOM	Quantity	Weight (MT)
1	4500045996	17.06.2023	SUGF0001K20P	Fresh Refined Sugar-1 Kg(20 PC)	BAG	33.750	0.675
					Total	33.750	

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Printing Date and Time : 18.06.2023 & 16:13:53
Reference No : 7900206715

Head Office: Fresh Villa, House # 15, Road # 34, Gulshan # 1, Dhaka-1212, Factory: Meghnaghat, Sonargaon, Narayanganj, Bangladesh.
Email: info@mgi.org, Web: www.mgi.org, Telephone No. 9887545, 9889490, 9884856, Fax: 880-2-9884896

CHALLAN

Meghna Tea Company ltd

Date:19/06/23

Customer code: Customer name: address: **Sending plan:** address:	5690 **Meghna Ceramic Industries Ltd.** Fresh Villa,House-15,Rd-34,Gulshan 1, / 1212 Gulshan-1, Dhaka (Ashariyarchar) Meghna Tea company Ltd (2701) Meghnaghat Sonargaon Narayanganj 1440 .		Truck no: Driver name: Mobil no: Transport:	**TA-51** NAIM ISLAM 01838375771 MTRC Plt
Material name	Material Code		Quantity	UNIT
Fresh Premium Tea 100x200g,PR 15Tk Off	TEAFP200G100PP18		**6.750**	Bags

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Meghna Group of Industries

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19.06.23
MCIL Store

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