Report On The impact of e-procurement on the Supply Chain Management of Omera Gas One Limited

By

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

Brac Business School Brac University May, 2022

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Declaration

It is hereby declared that

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

Student	's	Full	Name	&	Signat	ure:

Mohammad Rashed Ali ID: 21204238

Supervisor's Full Name & Signature:

Md. Hasan Maksud Chowdhury Assistant Professor, Brac Business School Brac University

Letter of Transmittal

Md. Hasan Maksud Chowdhury Assistant Professor, BRAC Business School, BRAC University 66 Mohakhali, Dhaka-1212

Subject: The impact of e-procurement on the Supply Chain Management of Omera Gas One Limited

Dear Sir,

With due respect I would like to state that I am submitting my internship report on The impact of e-procurement on the Supply Chain Management of Omera Gas One Limited. I am pleased to

inform you that I have completed my internship report from Omera Gas One Limited and I have tried my best to meet the requirements of this course while completing this report.

I would also like to express my utmost gratitude to you for your continous guidance and feedbacks that has greatly helped me in the making of this entire report.

Sincerely yours,

Mohammad Rashed Ali

ID: 21204238

ID. 21207230

Brac Business School

Brac University

Date: May, 2022

Non-Disclosure Agreement

This agreement is made between me, as a student of BRAC University and Omera Gas One Limited through 3 months internship program, The agreements are given below-

- I must abide by the rules and regulations of Omera Gas One limited.
- I shall not claim to have any privilege and have any legal rights in Omera Gas One Limited after the completion of my internship.
- If there is any misconduct or violation of rules, the management has the full authority to take immediate action and stop my internship.
- I shall report to my field supervisor on every working day from Sunday to Thursday on time during the internship period.
- I am advised to work with dedication and be very cautious while working as an intern in the company.

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Acknowledgement

First of all, I would like to thank my organization, Omera Gas One Limited for giving me the opportunity to work there as an intern and providing me with a pleasant work environment. I would like to thank, Mr. Tanveer Chowdhury, A.S.M. Tarique Hoque, Md. Zaoaduzzaman from the bottom of my heart for their immense support and kindness throughout my tenure. I would like to express my heartfelt gratitude to Mr. Hasan Maksud Chowdhury for bestowing me with whatever little knowledge I have in Supply Chain Management and also for being very lenient and assisting

me with the guidelines for completing the internship report. Lastly, I would like to thank the Almighty for getting me through all the the difficult times and keeping me in good health.

Executive Summary

Omera Gas One Limited started its jounery in the LPG industry of Bangladesh and has been dedicated towards serving the growing demand for the LPG in commercial, industrial an automotive sectors. Within a very short period of time, Omera Gas One Limited has successfully

established more than 32 Autogas stations all over Bangladesh and it clearly shows its sustainability in the LPG market of Bangladesh.

The topic of this report is The impact of e-procurement on the Supply Chain Management of Omera Gas One Limited and the entire study is divided into three parts – Chapter 1 is the overview of the entire experience that I have gathered in the 3 months of my internship report; Chapter 2 shows the overview of Omera Gas One limited, its management and marketing practices, its financial and accounting pratices, the company's operational & information system practices and lastly, competitive analysis of Omera Gas One Limited. Furthermore, the third chapter in this report mainly outlines my findings of my internship topic from the 3 months internship period at Omera Gas One limited.

In this report, I interpreted the positive impacts of implementing e-procurement in the supply chain management of Omera Gas One limited, which are - reduction of the lead time and man-hours, efficient inventory management, improved and more accurate ordering process, more transparency in the information system and elimination of unethical practices in the company. Moreover, through the analysis showed in this report, it can be comprehended that e-procurement has a major

positive impact on the supply chain management by making the whole process more convenient and more favourable for all departments.

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List of Acronyms

C&F Cost & Freight

ROA Return on assets

ROE Return on Equity

RFQ Request for Quotation

PO Purchase Order

CS Comparative Statement

CCIE Cisco Certified International Expert

DOA Delegation of Authority

LPG Liquefied Petroleum Gas

LNG Liquefied Natural Gas

OGL Omera Gas One Limited

ECG East Coast Group

MJL Mobil Jamuna Lubricant Limited

OPL Omera Petroleum Limited

OCL Omera Cylinder Limited

CSM Cylinder Smart Meter

Chapter One

Overview of Internship

1.1 Student Information:

Name: Mohammad Rashed Ali

ID: 21204238

Program: BACHELOR OF BUSINESS ADMINISTRATION

Major/Specialization: Operations management

1.2 Internship Information:

1.2.1 Period: From February 01,2022 ending on april 30,2022

Company Name: Omera Gas One Limited

Department/Division: Supply Chain

Address: CWS(A), 13/A Gulshan Avenue, Dhaka 1212, 1212 Dhaka, Dhaka Division,

Bangladesh

1.2.2 Internship Company Supervisor's Information:

Name: A.S.M. Tariq Hoque

Position: Assistant Manager

1.2.3 Job Scope – Job Description/Duties/Responsibilities

Import-

- Financial negotiation, technical support and product sourcing.
- Handling of commercial work for the import process made through the bank, forwarders and all others involved in the process.
- Engagement in the transportation process for smooth import procurement.
- Working and dealing with C&F agents.
- Maintaining close communication with CCIE, Explosive, Government bodies and with the customers.

Project Procurement-

- Financial & technical negotiation and vendor sourcing
- Ensuring the availability of resources on time

Local Procurement-

- Technical specification such as price negotiation; quality control and product sourcing
- Ensuring the availability of products on time
- Ensuring the payments of the suppliers

Inventory Management-

- Executing the analysis of daily inventory; identifying and resolving discrepancies and problems
- Ensuring the receiving and dispatching of goods on time at the right location

• Ensuring the availability of stock

1.3 Internship Outcomes:

1.3.1 Intern's contribution to the company:

During the three months of my internship period, I was mainly involved in the local procurement process, inventory management and import operations in Omera Gas One limited. Under the guidance of my direct supervisor, I have completed many job responsibilities in the company. I looked after the product sourcing, financial negotiations, transportations processes and bank work for importing the products. I was also involved with the responsibility of analyzing daily inventories, ensuring product making sure that the products were received on time. Keeping close communication with the customers and other government bodies was also a part of my learnings. Within the entire period of internship at Omera Gas One Ltd., I have tried my best to learn and contribute as much as possible.

1.3.2 Benefits to the intern: Throughout the internship program, a student is benefited in a number of ways –

- Interns get the opportunity to gain exposure in a corporate environment.
- Interns learn to imply their theoretical classroom knowledge in a professional environment.
- They learn to establish critical networking relations in their desired field.
- The interns also get to develop their soft skills such as professionalism, interpersonal skills, self-efficiency and confidence.

- Then again, during the internship program, an intern can enhance his/her communication skills, customer service skills and team working skills, which increases the probability of getting employment right after graduation.
- They also get exposed to the real world scenario while doing their internship programs.
- Interns get the opportunity to improve their adaptability and creative abilities in the workplace, which also helps them to build a strong resume.
- Moreover, they can create the opportunity to become a permanent employee after completing their internship program or after graduating.

1.3.3 Learnings from the Company:

Omera Gas One limited is a fast growing company- currently in its growth state. They have a very professional work environment, with a strong management. OGL is a local company but as it is a joint venture with a foreign mother company, their operations are carried out just like all other multinational companies. The company uses advanced technology in all their operations and they also have upgraded policies, which they follow religiously for all their employees.

All employees of Omera Gas One limited maintain strong professionalism and uphold all the company's values. Before joining the internship program at OGL, I had very limited understanding on how a company runs smoothly and performs all its day-to-day activities. On the first day of joining OGL, I was introduced to all the supervisors and employees at OGL and I was given a very short introduction on all departments of the company by my direct supervisor. During the entire internship period, my direct supervisor at Omera was always there to guide and instruct me properly before assigning any task, which was very helpful for my learning process. My supervisor

and all other employees never made me feel like an outsider in the company and this has kept me motivated and inspired throughout the entire period.

At Omera Gas One Limited, the organizational culture is based on the perception of completing one's responsibility timely and I have seen all employees taking responsibility and accountability for their actions. This has greatly motivated me to join this company after my graduation so that I can grow my career in the right work environment.

The corporate world is a very challenging formal place, where work comes first before anything else, but in Omera Gas One Limited, they value the needs and mental health of their employees, which eventually makes all employees loyal towards the company. One has to be proactive and highly adaptive, so that they can tackle situations if anything goes unplanned. In OGL, there is a plan for every activity of all departments but at the same time, the employees are always prepared to tackle any kind of difficult situation

1.3.4 Problems/Difficulties (faced during the internship period):

A student's life in the University is far different from an employee's life in the corporate world. The corporate world is much more formal, where work and professionalism counts more than anything. During the entire three months period of my internship, the first week was a bit difficult for me to adjust with the new environment I was working in, but soon I was able to adjust. I did not face much problem in the company as all employees and my direct supervisor were extremely helpful and supportive.

1.3.5 Recommendations (to the company on future internships)

Omera Gas One Limited should be more open to both paid and unpaid 'Internship Programs' for students of both the public and private universities as this will give students better opportunities to get exposure to the corporate world.

Chapter Two

Organization Part

2.1 Overview of the Company

Omera Gas One Limited was established in the year 2016 in Bangladesh as a joint venture between Saisan Co. Limited (Japan) and Omera Petroleum Limited (Bangladesh) to cater the developing needs for Liquefied Petroleum Gas (LPG) in Bangladesh's commercial, industrial and residential sectors. In order to deliver the demands of LPG gas in the country, Omera Gas One Ltd. has started their journey by installing an LPG import and storage unit with 36000 MT capacity in the upazila Mongla of Bagerhat District. Omera Gas One Ltd. has established three other bottling stations and satellite filling plants in Central Ghorashal, Chittagong (Southern Belt) and Bogra (Northern Belt) to ensure the proper distribution, availability and convenience of JPG throughout the entire country, which maintains European standard services.

Other than using an extensive fleet of Liquefied Petroleum Gas browsers for moving LPG from the Mongla site to its satellite plants, Omera Gas One Ltd. has successfully licensed an LPG Barge for the first time in Bangladesh – MV Omera Princess that has capacity of 300 MT for transporting LPG through the waterways. This is a good example showing the proper utilization of the company's capacity and technology for strengthening the downstream gas industry in the country. Omera Gas One Ltd. is dedicated to providing a sustainable and safe operation in Bangladesh, which is making a significant contribution in supporting Bangladesh's economic prosperity to maintain an inexhaustible and viable energy resource.

Omera Gas One Ltd is a joint venture between Omera Petroleum Ltd (Bangladesh and Saisab Co. Ltd (Japan) and is positioned as the leading operator in the LPG sector of Bangladesh. Starting its journey in 2015, the company has achieved a relatively faster growth compared to other companies in Bangladesh. OGL was launched in a relatively new but highly promising industry in Bangladesh, ensuring availability and convenience. All aspects of the company's operations show innovations and uniqueness that aims to transform the entire industry. In short, it can be said the OGL has achieved remarkable growth in the LPG sector and holds the vision to be the market leader in the next few years.

2.2 Organizational Structure Overview

East Coast Group

East Coast group (ECG) is one of the fastest developing businesses in Bangladesh, with more than 30 years of involvement in the largely diversified markets that includes Power Generation, Trading, Downstream Petroleum, Renewable Energy, Shipping, Real Estate, Plastics and Ceramics, Manufacturing, Wood Treatment, Banking, Corporate Finance, Insurance, Logistics, Tea Production and Distribution. Their primary journey started as a single company, focusing mainly in the gas and oil sector that is still a flying sky-high business of the East Coast Group.

In the early 80s, trading in crude oil, petroleum, and base stock and then followed by transportation mainly gained momentum during that time and later, during the 90s, the other companies of East Coast group further diversified in the market. ECG started getting involved in different markets, starting with trading in bulk commodities to making investments in manufacturing, financial

intermediaries, banks, real estate and insurance sector. Further, the market sector was expanded in areas of aviation operation business and power stations.

At the same time, an investment arm was expanded as a merchant-banking license for handling all the group's in-house asset management, including business development as a self-reliant financial intermediary. For capitalizing trading activities in bulk, a distribution company was launched in the liberated consumer market for the import and distribution of high-end market brand products.

Since East Coast Group has started their business, they have been following and maintaining high ethical standards and best operational practices, keeping these ideas as their main philosophy. ECG has maintained consistent growth and focused on the Energy sector, keeping other additional investments in Insurance, Finance, teach and Banking sector. The have the corporate vision of creating a major contribution for the country's energy sector to attain sustainability in future. They have also expanded their business in the niche sectors through vigorous planning and motivation. Then again, the group has also endured and survived times, when the market was not in their favor. Over the last few decades, they have been gathering experiences, as well as achievements that they believe was made possible since they have been preserving their corporate values and always integrating rewarding synergies. They are also active in maintaining their social responsibilities by reducing their carbon footprints for a better future of the upcoming generations.

Mobil Jamuna Lubricants Bangladesh Limited

Mobil Jamuna Lubricant Limited, also known as MJL Bangladesh Limited is the first and the sole joint venture company in the downstream petroleum sector of Bangladesh. Here, east Coast Group holds the second largest stake of MJL Bangladesh Limited after ExxonMobile.

MJL Bangladesh Limited has made vast expansion in the production sector and has created opportunities of employment for many people with 120 direct jobs and 2000 associated jobs. Hence, the company has creating a major value in the lube blending and world class lubricants availability sector in Bangladesh.

Omera Petroleum Limited

Omera Petroleum Limited (OPL) was launched in 2015, which is a subsidiary of MJL Bangladesh Ltd. OPL is one of the latest Liquefied Petroleum Gas (LPG) operators of Bangladesh. At the same time, OPL is the lead LPG distributor and importer in Bangladesh that has a European standard import terminal in Mongla and standard filling stations in four locations- Mongla, Bogra, Ghorarshal and Chittagong. Omera has made a strong investment on bottling and storing facilities, maintaining the European standard. The company's manufacturing company is known as Omera Cylinder Limited (OCL), which manufactures cylinders in compliance with European standard technology that is a fully automated process. There are different sizes of the cylinders with capacity starting from 5.5 kilograms to 45 kilograms. The cylinders come in 5.5kg, 12kg, 35kg and 45 kg and are available in two color shades- one is a glossy lemon yellow and the other one is Glossy window gray. For households and restaurants, Omera offers cylinders of 5.5kg and 12kg. The manufacturing and bottling procedure is done maintaining European standards, ensuring maximum safety to its customers. They provide excellent customer services by assuring efficient heating technology, along with an easy portable product design that is also easy to transport. For commercial uses, Omera manufactures LPG cylinders with capacity of 12kg, 35kg and 45kg for commercial uses in hotels, cafes and restaurants. Within a short period of time, Omera Gas One Ltd. has gathered huge popularity in the market for its excellent services to the mass market. The

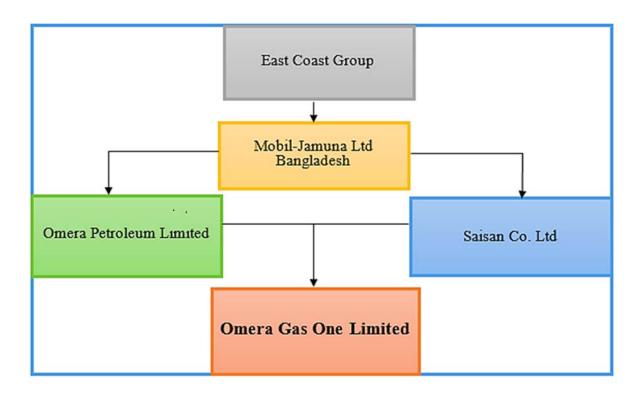
customers rely on consistent assurance of high quality cylinders, which provide efficient heat transfer and precise weight LPG cylinders.

Saisan Co. Ltd

Saisan is one of the main LPG distributors in Japan, which was established in 1945. They started their journey as a medical gas supplier in Japan and later expanded their business in the industrial gas sector, drinking water, electrical sales and LPG. Throughout its journey, they have expanded their market in the commercial and domestic sector and have successfully launched their business globally, to Mongolia, China, Indonesia, Cambodia and Australia.

Figure 1

Organizational Structure of East Coast Group



Omera Gas One Limited

Omera Gas One Limited (OGL) is a joint venture between Saisan Co. Ltd & Omera Petroleum Limited. Since its launch in 2016, OGL has been able to grab 9% of the market share, having the fastest growth in the LPG industry. The company has successfully ventured into the LPG industry, with the commitment of uninterrupted availability of products ,proper functionality, convenience and safety to their customers.

Figure 2
Shareholders of Omera Gas One Limited



2.2.1 Mission

To be the market leader within 2030 and hold the leading position of LPG operators of Bangladesh. To remain a role model for market leadership and focus on long-term business sustainability and productivity on selling through continuous and consistent market growth.

2.2.2 Vision

Engaging the company's technology and capacity for strengthening the country's downstream gas industry and contributing to the nation's diverse energy sector.

To be Bangladesh's lead brand in the fast-growing and competitive LPG market sector.

To improve and enhance the products keeping the highest quality with the best-price and to ensure highest efficacy and long-lasting durability of all products.

2.2.3 Objectives

Omera aims to accomplish the followings for delivering their mission and vision to all its customers-

- Engage, establish and retain the best fitting talent.
- Determine and grab the most strategic and highest growth opportunities for the company
- Establish and maintain recognition as the market leader with the greatest profitability in the LPG market sector in a short time, related to its logistics and distribution.
- Through strong asset utilization, optimize efficiency.
- Safely lead the market and maintain sustainability.

The head office of Omera Gas One Ltd. is located in Dhaka, with 180 employees in their head office and more than 500 employees in total. The head office has 13 departments and the primary functions operate in Dhaka. The company's CEO and other departments HOD controls all operations and functions. Workforces are recruited from its third-party concerns, who work as contractual employees of Omera.

Figure 3

Organogram of Omera Gas One Ltd.



2.2.4 Plant Locations of Omera Gas One Limited:

Omera Gas One Limited established its name in Bangladesh's industry as the most sophisticated and largest LPG distribution facility and storage, which includes LPG Cylinder Filling Center, LPG storage and LPG Truck Loading Bays. The main import terminal is situated at Mongla (Khulna), along with its three satellite stations at Bogra, Ghorarshal and Chittagong and they have been ensuring the fastest delivery services all over Bangladesh through their third party trade partners.

2.3 Management Practices

2.3.1 Management Practices in Omera Gas One Limited

The management practices in Omera Gas One Limited have a strong influence on their employees that greatly improves their effectiveness of the work system. Some major management practices include:

I. Empowering employees and tailoring individuals learning styles:

Omera Gas One Ltd. exercises different types of management practices such as inspiring and empowering their employees. Employees working for OGL are motivated through promotions and incentives. Early bonuses, gratuity and yearly increment are applicable for all of their permanent employees. Then again, managers in OGL provide orientations and proper guidance to their employees during their career in Omera, which help them to develop more in their professional life. Employees are always motivated for their performance and are provided ownership in their task. Hence, individuals working at Omera Gas One Ltd are always recognized for their progress and development through approaches such as promotions or other types of unique drivers.

II. Training and Leadership Skills development:

In Omera Gas One Ltd. the management team organizes development training sessions for all their newly joined employees. The sales unit employees go through some special training programs as they have to work in the field. Training programmes enable the employees to develop professionally as they gather more knowledge related to their specific work. Skills are developed, which enables all employees to strengthen their qualities at work and hence, it brings growth and

development to the entire organization as a whole. In OGL, everyone is exposed to training programmes and have the opportunity to end up a pioneer and a top-level corporate official.

III. Arranging meetings and events:

The management plays an important role in making a bridge between the top-level directors and employees. These types of meetings help the organization to make decisions as a team and also provides a clear view and understanding of different situations within the organization that can be both external or internal.

IV. Incorporating new technologies:

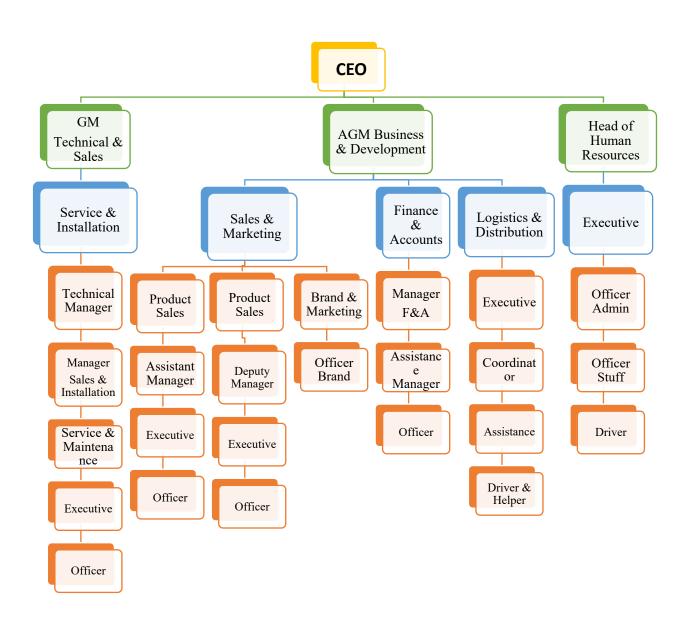
Employees at Omera Gas One Ltd. get the advantage of using different types of new technologies during their task at work, which makes their life much easier. Management has provided their employees with computers and recent technologies for processing raw data and for quality assurance tasks. This has made the organization competitive advantage and has made them adapt to the ongoing trends in the external environment.

2.3.2 Organizational Hierarchy:

Omera Gas One Limited has a high organizational structure consisting of several management levels, executives, officers and front line staff. The command chain inside the company runs from top to the bottom. The organization structure of OGL is given below:

Figure 4

Organization structure of OGL



2.3.3. Recruitment Process and Selection Process:

Omera Gas One Limited is one of the fastest growing companies in the LPG industry in Bangladesh, with over 500 employees all over Bangladesh. OGL has created a work environment where their employees are highly committed to fulfilling their targets and they all work to the highest standard integrity and professional excellence. In the recruiting process, employees are recruited from many sources: Internal sources, advertisement & job posting, referrals from a current employee, third party sources and temporary help services. The recruiting process in OGL is done by the management where they select the right candidate based on the jon specifications. In Omera Gas one Limited, the recruitment and selection process is done at the same time. The entire process goes as follows:

Figure 5

Recruiting and Selection Process of Omera Gas One Limited

Candidates Sourcing

• Sourcing is done via advertisements on career sites or through different professional networking

Selection of Potential Applicants

• Higher management select potential applicants based on their qualifications and experience/ job requirements

Employment Test

• Written test measures are taken which are designed based on the nature of the job

Face-To-Face Interview

• The hiring manager interviews the applicant and measures the candidate's abilies

Hiring

• The hiring manager takes the decision, selects the candidate, negotiates the terms of employement and completes the agreement.

2.4 Marketing Practices

2.4.1 STP Analysis:

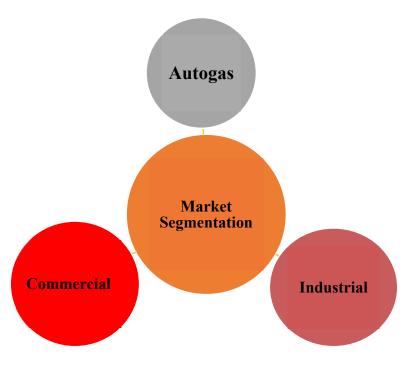
I. Segmentation:

Omera Gas One Limited installs customized reticulated systems through bulk storage and cylinder banks solutions. Customized ventralized system solutions are provided by OGL based on the needs of the customers. OGL provides a storage tank system for high-rise buildings and a customized storage tank system for industrial clients. LPG gas from plants of Omera Petroleum Limited are collected by OGL that are located in Bogra, Ghorarshal, Mirersharai and Mogla stations for further distribution to the customers. They import other necessary machinery such as gas tanks, fittings, pumps, dispensers, valves, control panels for supporting the full distribution system. Other conversion kits of European Origin are also supplied by OGL such as sequential, conventional and three-wheeler LPG kits and tanks for vehicles. Various materials are imported from Singapore, Japan, Spain, Thailand, India, Belgium and Italy by Omera Gas One Ltd. Moreover, OGL also procures from local vendors in Dhaka (Mohakhali and Khilgaon), Dhamrai, Gazipur, Bagerhat, Narayanganj and Sreepur.

The market segment of Omera Gas One Limited is illustrated in figure 6.

Figure 6

Market Segmentation of Omera Gas One Ltd.



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Autogas: This station provides gas to various filling stations for automobiles. The autogas filling services provided by Omera Gas One Ltd. comprises a complete layout plan including supply of Autogas filling equipment, installations, supply conversion kits of European origin and after sale services. Training for the smooth operations, insurance quality of products and safety measures during filling are made sure by the company. Products are imported from foreign countries and this includes LPG Bulk storage tanks, LPG dispensers, Pumps containing bypass valves, fittings, conversion kits, Seamless pipes and other spare parts for the autogas filling stations. OGL provides services all over the country and the autogas stations are situated in locations such as different places in Dhaka, Jashore, Gazipur Rajshahi, Chittagong etc.

Industrial: The industrial products provided by Omera Gas One Ltd. are mainly imported and this contains LPG Bulk Storage Tanks, MS Seamless Pipe, Pump with Bypass Valve, Vaporizer, Fittings and other spare parts. The customers for this sector are mainly based in Dhaka, Gazipur, Tetuliam, Jashore Chattagram etc. In this segment, the company also has clients from ACI Motors Limited, ACI Formulations Limited, YKK Bangladesh PTE Ltd. and Meghna Bangladesh Limited, Scandex (BD) Ltd and such.

Commercial: The commercial products are mainly from foreign countries. They import products such as LPG Bulk Storage Tanks, MS Seamless Pipe, Pump with Bypass Valve, Vaporizer, Fittings, PayGo CSM, LPG Postpaid/Prepaid Meters and other spare parts. The commercial clients in this segment are mainly based in different parts of Dhaka and Cox's Bazar such as Rajuk Hatirjheel Project, Dhaka Central Jail, Rakken Development Company (BD) Ltd, SHIP AICHI Medical Hospital and many others.

II. Target Market

Omera Gas One Ltd. does not have any fixed target group of people; rather the company considers the entire market as their target customer. Day by day, the demand for LPG is growing and with the growing demand, OGL has chosen to serve the entire mass market. Though, this seems like a challenging task but the company has managed to deliver its services smoothly through proper marketing practices.

III. Positioning

Omera Gas One Ltd. Was established in the year 2016 and being a relatively new company in Bangladesh, OGL has the vision to be the leading brand in the fast-growing LPG industry in Bangladesh. Different marketing strategies such as advertising on billboards and after sales customer services are used by OGL to position themselves properly in the minds of customers. OGL started their journey to solve the increasing demand of LPG in Bangladesh and the products and services provided by OGL makes life much more convenient for their customers.

2.4.2 Mode of Transport and Distribution

The plants of OGL are located in such a manner so that they can distribute all over Bangladesh at the minimum cost. Bangladesh is a country that has abundant river posing opportunities and also poses challenges for proper distribution through river based routes using traditional transport system. In this case, Omera has successfully created self-invested LPG carrying Barges named "Omera Princess". Later on, Omera launched two other barges named as M.T Omera King and M.T Omera Glory. Each of the barges has a maximum of 350 M.T of LPG through the riverways and seaside regions in Bangladesh. These barges are well built under the supervision of a foreign company.

Omera gas one Limited maintains International Standard Quality Control – DOT4BA 240 and DOT4BW 240 for its cylinders that are approved by the Explosives Department of the Government of Bangladesh. These Barges can move LPG gas through waterways and sea size areas of Bangladesh. They use foamy stream tankers and trucks for roadways transportations. Omera Gas One Ltd. has maintained consistent supply of their services to all parts of Bangladesh even when the demand is on.

Figure 7

Transports of Omera









Note: Omera Barges (Omera Princess, Omera King and Omera Glory)

Source: 2017, Omera Gas One Limited

2.4.3 Product Portfolio

Omera Gas One Limited imports and distributes LPG in bulk quality all over Bangladesh. The company distributes customized LPG tanks and dispensers based on their customers' need. Their market is divided into three sectors- Autogas, Commercial and Industrial. OGL provides customized gas storage systems for high rise buildings and for different commercial project works such as Rajuk Hatirjheel Project, Dhaka Central Jail, Rakken Development Company (BD) Ltd, SHIP AICHI Medical Hospital and many others. They supply bulk LPG to different gas stations, both inside and outside Dhaka. Customized reticulated LPG systems are supplied to different boiler companies. Some of their industrial customers are ACI Motors Limited, ACI Formulations Limited, YKK Bangladesh PTE Ltd. and Meghna Bangladesh Limited, Scandex (BD) Ltd, and etc.

Figure 8

Autogas Stations by Omera Gas One Ltd.



Source: 2017, Omera Gas One Limited

Figure 9

Connected Bulk LPG system for commercial use



Source: 2017 Omera Gas One Limited

Figure 10

Connected Bulk LPG system for commercial use





Source: 2017 Omera Gas One Limited

2.5 Financial Performance and Accounting

2.5.1 Finance Performance:

Financial performance refers to the well-being of a firm, which is a measure for how the firm is using the assets to generate revenues. The table below shows the financial data of OGL which is used for measuring the financial performance of the company:

Table 1Financial data of OGL

Year	2018	2019	2020	2021
Net profit	4172299	7592502	43288672	37441460
Total revenue	44626407	251110581	408640890	767475873
Current assets	357451588	361739157	380400663	351085213
Current liabilities	61956958	135212736	206828821	149230498
Total assets	396511362	477359641	592264398	654507790
Total equity	334554403	342146905	385435577	422877037

Note. The amounts shown here are in BDT

2.5.2 Profitability ratios of Omera Gas One Ltd.

Net profit Margin

Net profit margin is determined by dividing the net profit with total revenue. Following is the net profit margin table of OGL:

Table 2

Profit Margin of OGL

Year	2018	2019	2020	2021
Net profit margin	9.35 %	3.02%	10.54%	4.88%

Note. We can see that OGL made 4.88 taka profit for every 100 taka sales in 2021 which was higher in the previous year.

Return on assets (ROA)

ROA shows the profitability of a firm in relation to its capital and it is acquired by dividing net profit by total assets.

Table 3

ROA table of OGL

Year	2018	2019	2020	2021
Return on assets	1.05%	1.59%	7.31%	5.72%

Note. It can be seen that there was a good bump on the ROA in 2020 but it dropped to 5.72% in 2021.

Return on Equity (ROE)

ROE shows the earnings of the shareholders for their investment in equity and it is determined by dividing net profit with total equity.

Table 4

ROE of OGL

Year	2018	2019	2020	2021
Return on equity	1.25%	2.22%	11.23%	8.85%

Note. We can see that their ROE was increasing till 2020 and it dropped a bit in 2021 and in the year of 2021 the shareholders made 8.85 taka for every 100 taka they invested.

2.5.3 Liquidity ratio

Current ratio

Current ratio is a liquidity measure which shows the comparison of company's current assets and current liabilities and it indicates the firm's capacity to pay up their short term debts.

Table 5

Current ratio of OGL:

Year	2018	2019	2020	2021
Current ratio	5.77	2.68	1.84	2.35

Note. We can see that the current ratio was a bit high in 2018 then it was decreased to 1.84 in 2020

2.5.4 Accounting practices

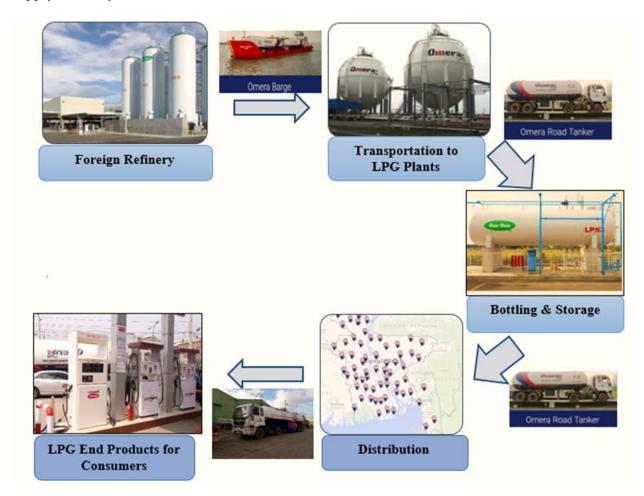
Omer Gas One Limited follows the core principles of accounting and they also follow the accrual basis of accounting method. To add to this, OGL also follows all the steps of the accounting cycle to manage their accounting department effectively. The depreciation method followed by OGL is by the straight line basis.

2.6 Operations Management and Information System Practices

2.6.1 Operation Management

The supply chain management is responsible for buying, overseeing and supplying as wide range of products starting from the raw materials, machineries, consumables, spare parts, IT equipment and brand marketing items, under the administration of DOA (Delegation of Authority) and the endorsed e-Procurement policy. This guarantees the smooth and uninterrupted activities of the company. The supply chain department of OGL is shown in the figure below:

Figure 11
Supply Chain of Omera Gas One Limited



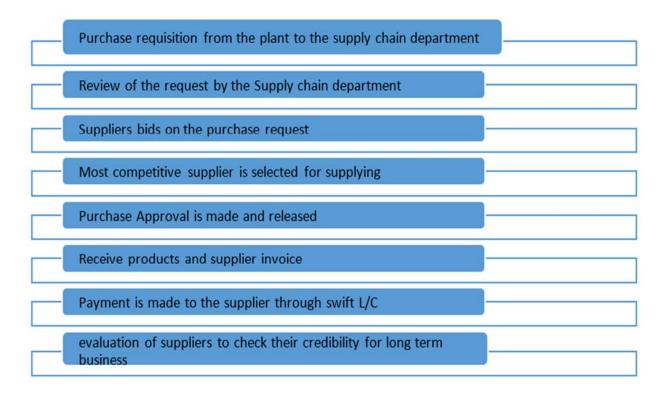
Omera Gas One Ltd. imports bulk LPG from foreign refineries and traders and ships the bulk LPG to their terminals in Bangladesh using their three Barges via the sea-routes. Once the bulk LPG reaches Bangladesh, they are further transported to the Mongla Main plant and three other LPG Satellite plants using their Road Tankers and barges. Further, LPG is distributed to all parts of Bangladesh based on the three types of market segments of OGL- Autogas, commercial and industrial. LPG is distributed for the filling stations in Mohakhali (Dhaka), Kumrapara (Rajshahi), Khulshi (Chittagong), Gazir Garda (Jessore) and Alipur (Satkhira). For commercial uses, bulk quantity LPG is distributed to Rajuk Hatirjheel Project, Dhaka Central Jail, Rakken Development Company (BD) Ltd, SHIP AICHI Medical Hospital and many others. Lastly, for the industrial uses, OGL supplies LPG for ACI Motors Limited, ACI Formulations Limited, YKK Bangladesh PTE Ltd. and Meghna Bangladesh Limited, Scandex (BD) Ltd and as such.

2.6.2 E-Procurement System in Omera Gas One Limited

The e-procurement process in Omera Gas One Ltd. is beneficial for the long-term procurement of services as this process is digitalized and is highly efficient. Moreover, the technology used in e-procurement in the company can be considered as the best way to establish a sustainable development in the supply chain management. E-procurement in the supply chain management consists of sourcing, purchasing, enrolling, auctioning, bargaining and negotiating. The involvement of e-procurement in the supply chain makes the interaction of company and foreign suppliers more accessible, convenient and of better quality. The electronic mode in the procurement process improves effectiveness in the supply chain management process of the company. The process of e-procurement is shown in figure 15:

Figure 12

E-procurement process of Omera Gas One Limited



Previously, the management of a proper purchasing process was very time consuming. The use of e-procurement process reduces the paperwork and handling during each purchase. Omera Gas One limited uses an e-procurement process to manage the flow of documents by electronically sending the purchase documents to its suppliers and hence, automating the entire document generating process in the supply chain department. This also reduces the time needed for the recognition and the release of receipts after each order. The communication between the company and its suppliers also improves through the process. Moreover, the supply chain personnel get more time on purchasing activities as the processing time for the purchased orders and invoices reduces. Hence, in the long-run e-procurement technologies have a positive impact on the supply chain management by lowering the associated procurement cost and increasing order fulfillment.

2.6.3 Information System Practices

Information system is a combination of software, hardware and telecommunication networks that are used for collecting, creating and analyzing useful inofrmation in an organizational setting (Bourgeois & Bourgeois, 2014). The Information Sytsem in Omera Gas One Limited includes:

- Software: The Company uses the demo ORACLE and SAP software, which is widely used for accounting and operations in majority of the multinational companies. They are planning to pursue one of them whichever suits their best interest. The finance department uses quickbooks.
- People: Starting from the front-link desk employees to the business analysts, managers and all the way up to the CEO, the people who are involved in managing the information system play a vital role in the entire system. Currently, the company has more than 500 employees all over Bangladesh and 180 employees in their head office.
- Process: This is the last component of the information system and this is a series of steps
 that needs to be undertaken for achieving the targeted goal of the company.

2.7 Industry and Competitive Analysis

2.7.1 LPG Industry Analysis

Adequate supply of fuel and energy resources have alway been a major concern for highly populated countries like Bangladesh, where the consumer is substantially high compared to the supply of fossil fuel (Momtaz et al., 2019). Bangladesh has been depending on the reserves of its natural gas for industries, fueling power plants, household cooking fuel and commercial usage. However, the reserve for natural gas is shrinking, while the demand for natural gas is increasing. There have been a number of underlying factors contributing to the increased demand of natural gas as an energy source and these are- rise in per capita income, industrialization and urbanization (Rozario et al., 2022). While the demand for natural gas is skyrocketing, the reserves are tiring and hence, the use of LPG comes as the best solution for the energy crisis in Bangladesh.

It was estimated that with the country's current reserves, Bangladesh can roughly meet the demand for natural gas till 2026 (Rozario et al., 2022). In 2009, the Government of Bangladesh stopped providing new piped gas lines to households, which made the LPG market to finally take off (Rozario et al., 2022). Since then, LPG has been extensively used as cooking fuel in newly developed households and enterprises in the major cities. The LPG industry in Bangladesh is estimated to grow three times from the recent market size of One Million Metric Tons (Rozario et al., 2022). Absence of natural gas connectivity in rural parts of the countries as well as new households in cities, decentralized economic development and the evolution of LPG as a vehicle fuel will be the primary drivers for the demand of LPG in the upcoming years. Moreover, with the development in infrastructure, industrialization and with better connectivity, it is estimated that by 2025, there will be a middle and affluent consumers population of at least 300, 000 across minimum 33 cities in Bangladesh, where the majority of the cities will be deprived of natural gas

piped line supplies. Hence, the only source of energy for cooking would be the use of LPG Rozario et al., 2022).

Then again, LPG is considered as green hydrocarbon, meaning that it is environment friendly and hence, the use of LPG in automobiles and vehicles can be the best option for mitigating the air pollution issue in the cities of Bangladesh. In October 2017, the first digital LPG filling station was settled in Bogura by Intraco Group. Currently, Omera Gas One is the largest autogas provider in Bangladesh with 10 filling stations in different parts of Bangladesh. Considering the huge potential of the LPG industry in Bangladesh, each year new companies are trying to enter the market. In order to successfully establish in the highly competitive and yet potential market of LPG industry in the country, one has to establish a highly efficient distribution system. Currently, all companies in the LPG industry operate by having a storage facility, from where they bottle the cylinders and then supply LPG cylinders to the retailers for further distribution to the consumers. They also provide connected banks and bulk LPG for large-scale industrial & commercial uses, which are mainly custom made services based on the needs of the customer.

Hence, filling stations in a certain geographical area determines the market share in that region for the LPG importers. In Bangladesh, the government is taking all necessary steps to overcome the natural gas crisis by encouraging the import of LPG, which can be used for both household and business consumption. Providing a consistent supply of energy is a huge challenge but the government has addressed this issue through the introduction of implementation of favorable government policies. Tax has been exempted for LPG import and tax on the import of assembling equipment for LPG cylinders are also set below 5%. Furthermore, the VAT on plastic and glass cylinders below 5000 liters are also exempted in the 2017-2018 fiscal budget (Rozario et al., 2022). Hence, the import of LPG is greatly encouraged and that also resolves the country's problem with

the natural gas crisis. The energy demand will beel increasing for both industrial and households and the prospect of the LPg industry in Bangladesh is assumed to be secure for the upcoming years.

2.7.2 SWOT Analysis

Figure 13
SWOT Analysis of Omera Gas One Limited

Strengths Weaknesses **Threats Opportunities** Power Country's largest Generation auto gas provider Relatively new in New competitors market in market Green Energy Regional Distribution Resource Centers Strong Distribution Rural Market Network development Liquefied Natural Insufficient Gas as an Reliable Suppliers alternative to marketing Introduction of natural gas reticulated Adequate number of system Road Tankers Own River-way Increase Cylinder transportation Manufacturing Large group of capacity Poor Investors enforcement of Less focus in the safety Tax exemption Europeran Standard Rural areas regulations bottling & Storage policy for LPG facilities import

2.7.3 Competitive Analysis of Omera Gas One Limited

Figure 14

Porter's Five Force Analysis of OGL



• Threat of New Entrance: High

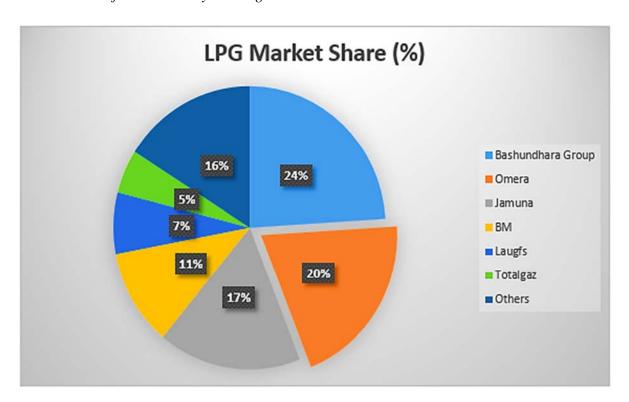
With the increasing demand for fossil fuel in Bangladesh due to increased population, the LPG sector is a highly potential market in this country and hence, new companies are planning to enter the LPG market every year. According to the report by Rozario et al., (2022), there were 13 companies operating in the market in the year 2018 and over a span of 1 year, in 2019, there were seven more companies who were finalizing their strategies to enter the LPG market. Almost 55 companies have received licenses for the distribution and marketing of LPG but some of them did not secure the final approval (Rozario et al., 2022).

Industry Competition (Rivalry): High

According to the report conducted by Rozario (2022), the LPG market is led by Bashundhara group at present with a market share of 24%, followed by Omera with 20% of the market share. Jamuna holds 17% of the market, followed by BM with 11% market share (Rozario et al., 2022). In the year 2019, Bashundhara Group was approved for setting up 20 factories in the East West Special Economic Zone Limited near Keraniganj for increasing their LPG cylinder manufacturing capacity. Furthermore, Orion is trying to enter the market by introducing a reticulated system that will be supplying LPG to the consumers directly from a centralized cylinder bank system (Rozario et al., 2022).

Figure 15

Market Share of LPG Industry in Bangladesh



Soure: LightCastle Primary

Threat of Substitutes: Low

In the year 2018, The Government of Bangladesh has started to import Liquefied Natural Gas (LNG) addressing the issue with the high demand for natural gas and its supply (Rozario et al., 2022). The threat of LNG taking over the market of LPG is less, since the imported LNG is a bit pricey compared to both domestic sources and LPG cylinders. Moreover, many regions in Bangladesh, especially the rural and peri-urban areas do not have a natural gas distribution network and a set-up of a new gas field would require huge investments. Hence, rural and unconnected areas of Bangladesh would be highly dependent on LPG even in the upcoming years.

Supplier Power: Low

The bargaining power of suppliers for Omera is relatively low, since Omera Gas One Ltd is a joint venture company between Omera Petroleum Ltd. And Saisam Co. Ltd. Saisan is a major distributor of LPG in Japan and they have business in other parts of the world such as China, Indonesia, Australia, Cambodia and Mongolia.

Consumer Bargaining Power: High

There are many new companies trying to enter the LPG market every year since the potential for this sector is high. Omera Gas One Ltd. maintains a high European Standard storage facility and bottling system and at the same time they have the additional advantage of low cost transportation and fast delivery system but the customers have different options to choose the product. With the increased new-comers in the market, the power of the consumer also increases and hence the bargaining power of the buyer gets high in this perspective.

2.8 Summary and Conclusions

Within a very short span of time, Omera Gas One Limited has established themselves as one of the leading companies in the LPG industry of Bangladesh. The current position of OGL was made possible because of their best performance and their wide distribution system in the country. The company ensures uninterrupted distribution of LPG all over Bangladesh through their large bottling and storage stations, which is also the largest of all in Bangladesh. OGL has LPG carrying 3 barges and 22, whereas the leading Bashundhara group in the LPG market has a single barge for transporting the LPG. This gives OGL the additional market advantage of keeping their transportation cost low. At the same time, delivery of LPG to the retailers also becomes faster. Moreover, the after-sales services provided by OGL is also praisable. OGL holds a very positive brand image based on their high quality of services, use of advanced technologies, quality of product and the service satisfaction level of customers.

2.9 Recommendations:

Every year, new companies are trying to enter the LPG industry considering the high potential of this sector. In order to be be the market leader in the highly competitive industry of Bangladesh, Omera Gas One Ltd. can work on the following fields-

- They can expand their distribution channel to reach the rural and disconnected parts of the country, where people do not have access to LPG. They need to send representatives to those disconnected regions in order to make sure that all consumers receive the same level of after-sales services despite geographical barriers.
- OGL can introduce new marketing strategies for reaching more people in the market.

 Representatives or sales people can check on retailers to collect feedback and work on the

gaps. New offerings can be introduced to the consumers that will enhance customer service such as introduction of an app or customer care center. Customers can directly contact for refilling without the need to physically visit the shop.

OGL also needs to put more effort into their promotion and advertising to increase
awareness of their product and services to people in all parts of Bangladesh. Compared to
Bashundhara Group, they have only one plant whereas Omera has four plants and hence,
they can easily cover all parts of Bangladesh with their wide distribution channels.

Chapter Three

Project Part

3.1. Background of the study

An electronic procurement, also known as e-procurement, is a system of information technology based purchase system that promotes corporate buying using the Internet (Presutti, 2003). This system has the capacity to alter the process of purchasing as it pervades all identified steps, starting with the incorporation of e-design at the specification developmental stage during the purchasing process and ending with the efforts of the supply manager for evaluating and performance rating of the supplier (Presutti, 2003). Studies have shown that information technologies like e-procurement is playing a major role in businesses these days and the use of such a system demonstrates the inescapable move of maximum organizations towards technology-based purchasing (Vaast & Walsham, 2009).

E-procurement allows a firm to capture accumulated purchases through solution codes. At the time, it also narrates all noticeable details of a supplier's performance that includes quality performance and delivery information (Presutti, 2003). The e-procurement system has many advantages to be offered to a firm such as reduced labor cost during the purchasing process, reduced material cost and many others. Hence, the e-procurement system is expected to improve the purchasing function within organizations.

E-procurement is advocated as a modern strategic outlook of supply chain management, where the innovations created through the implementation of the e-procurement system creates value for organizations by IT-based resources used on the supply chain management (Hsin Chang et al., 2013). The current global market is very competitive and dynamic. Thus, it has become a necessity for all organizations to adopt to an e-procurement system to provide cost-effective services, which would eventually provide better customer satisfaction. With the emergence of technology, organizations have been shifting from traditional style operations to more technology based operations such as incorporating e-procurement and e-supply chain management in order to sustain the fast growing market (Hsin Chang et al., 2013).

Studies conducted previously have shown the positive impact of e-procurement on supply chain management. According to Hsin Chang (2013), e-procurement builds a need for the supply chain managers to figure out the impact of such information technology on the accomplishment of competency in practical life. The author also suggested that the relationship between the partners, sharing information and the integration of supply chain somewhat represents the relationship between supply chain performance and e-procurement (Hsin Chang et al., 2013).

3.1.2 Objectives

This report has focused on the impact of e-procurement on the supply chain management of Omera Gas One Limited which shows the effectiveness of the e-procurement practices of the company. To find the disadvantages for implementing e-procurement system in the organization and how to overcome it. Besides, also evaluating where do we stand in term of integrating the e-procurement in our organization.

3.1.3 Significance

This report is meant to find out how the e-procurement system has out-performed the conventional procurement system. This is the very first report made on the impact of e-procurement on supply chain management of Omera Gas One Ltd. Moreover, this paper can provide insights on e-procurement of one of the leading LPG companies of Bangladesh.

3.1.4 Limitation:

The limitations that I faced while making of the reports are given below:

- The project was made based on a biased sampling due to time constraints.
- The sample size was insufficient for statistical measurements.
- There was lack of previous research studies done on this topic.

3.2 Methodology

Here, a qualitative methodological approach has been used to find out the impact of e-procurement on the supply chain.

In this sample I have used the convenience sampling method as the respondents were easy to reach and I had time constraints also .

I have collected my sample from the SCM department of Omera Gas One Limited and the supply chain concerns of OPL and MJL who are serving as Manager, assistant manager and executives.

I have used primary data which I collected through printed questionnaire during my informal interviews with the respondents.

For this research I have taken 10 respondents through convenience sampling and I have asked 10 questions using the five point Likert scale in the questionnaires to measure their viewpoint.

3.3 Findings and Analysis

3.3.1 The impact of e-procurement on Supply Chain Management

The following table contains the responses from the respondents which were used to find out if eprocurement has an impact on the SCM:

Results:

Respondents	Q1	Q2	Q3	Q4	Q5	Q6
1	5	5	5	5	4	5
2	5	4	5	5	5	4
3	5	5	5	5	5	4
4	5	5	5	5	4	5
5	4	4	5	5	4	5
6	5	4	5	4	4	5
7	5	5	4	5	4	4
8	4	4	5	4	5	5
9	5	5	5	5	4	5
10	5	4	4	5	5	4

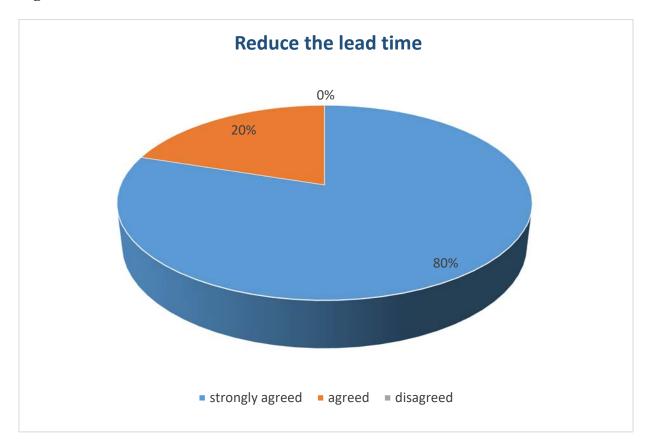
Questionnaire	Q1	Q2	Q3	Q4	Q5	Q6
Strongly agree	8	5	8	8	4	6
Agree	2	5	2	2	6	4

3.3.2. Findings from the questionnaire

Does it reduce the lead time?

This question was asked to see if e-procurement really helps to minimize the time needed between placing an order and receiveing it. From the results of the respondents, we can see that no one disagreed ,80 percent people strongly agreed and 20 percent people agreed on the fact that implementation of e-procurement has helped to reduce the lead time as steps like looking for suppliers, evaluating the quotations, making comparative statement, placing it to the management and getting approval for purchase order are already taken care of by the system.

Figure 16



How does it help managing the inventory effectively?

This question was asked to see if e-procurement really helps to manage inventory. From the result of the respondents we can see that 50% people strongly agreed and 50% people agreed that it helps to manage the inventory efficiently. The respondents also added that forecasting the demand, smooth buying process, checking the inventory on hand and improved lead time are the reason behind it.

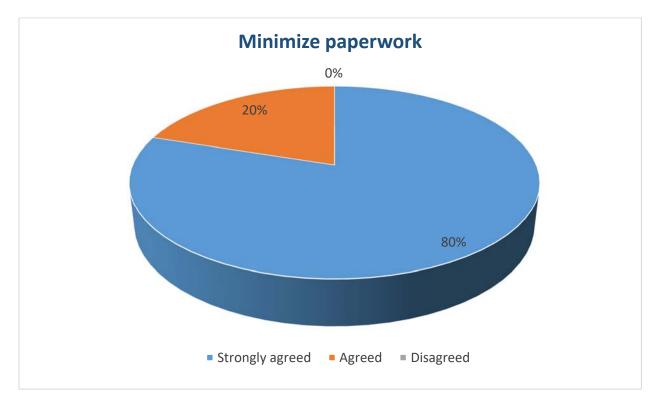
Figure 17



Does it reduces paperwork?

There is a lot of paperwork from the start of placing an order to receiving it in the traditional system. From the result of the respondents, we can see that 80% people strongly agreed and 20% people agreed that it reduces paperwork by storing business data like purchase order, proforma invoice in the software.

Figure 18



Does it help reduce the labor-hour for handling an order?

This question was used to find out if the e-procurement takes out the work-load of handling an order than the traditional one. From the result of the respondents we can see that 80% people strongly agreed and 20% people agreed that it helps to minimize the labor-hour needed to handle an order, as the system does most of the work like finding suppliers, making automated comparative statements, evaluating the quotation which results in improved productivity.

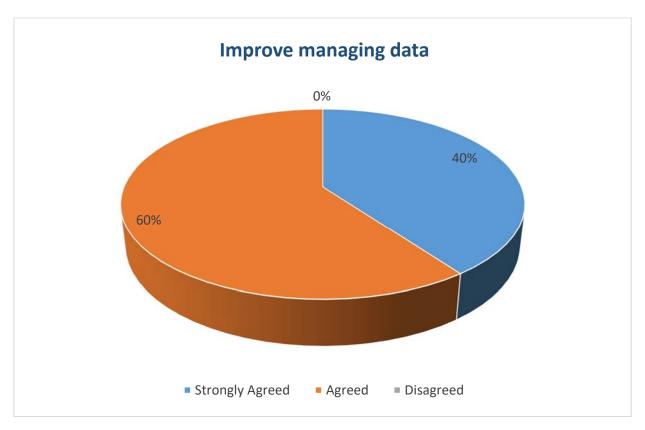
Figure 19



Does it improve managing data?

Managing the business data had been much easier and efficient through e-procurement. From the results of the respondents we can see that 40% people strongly agreed and 60% people agreed on the fact that it helps to track and use the data of previous procurement, expenses easily and it is more transparent and accessible.

Figure 20



Does it help minimizing unethical practices?

In our country fraudulent acts are common in the traditional procurement system. From the result of the respondents we can see that 6 people strongly agreed and 4 people agreed that it helps to minimize unethical practices like payment tampering ,false bidding etc.

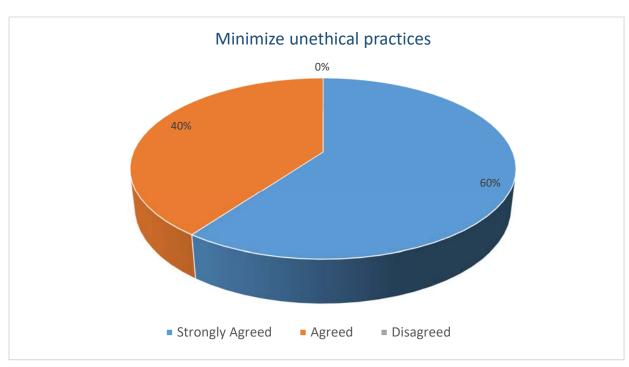


Figure 21

The other findings I have came across are given below:

- The development and use of advanced technology has also enhanced the use of e-payment and also the use of supply chain management.
- There is better coordination between the suppliers and the supply chain department over the purchase price, technical specification for products and inventory policies.

3.3.3 Comparison between traditional procurement and e-procurement

This is a contrast made on two orders by comparing pre-recorded data. OGL planned to buy 2772 units of meters for LPG tankers on 1st February of 2021. They floated the tender through Omera e-procurement platform. The parties who placed their bid were Katsura (Japan), Saisan Co. (Japan), Gas Group(Turkey) and Plexix(Italy). The technical and financial sorting includes product specifications, warranty, price of the product and freight and delivery lead time; OGL sent the purchase order to Katsura(Japan). On the other hand, OGL ordered 2690 units of meters on 5th, December of 2020.

The table given below shows the comparison between traditional procurement and e-procurement of OGL:

 Table 6

 Comparison between traditional procurement and e-procurement

E-procurement	Traditional procurement
Tender float was done on 01/02/2021	RFQ was sent on 05/12/2020
Deadline of the tender was 06/02/2021	Getting queries from suppliers, evaluating quotation and making CS ,placing it to management and getting approval for PO
Purchase order issued on 10/02/2021	Purchase order issued on 27/12/2020

Total duration 9 days	Total duration 22 days
Number of manpower needed: 01 person	Number of manpower needed: 03 persons
remoer of manpower needed . or person	rvamoer of manpower needed . 05 persons
Man hours needed: 16 hours	Number of man hours needed: 65 hours

3.3.4 Disadvantages of implementing e-procurement system

This part shows the insights about the disadvantages a company might face in the implementation of e-procurement system :

Respondents	Q1	Q2	Q3	Q4
1	2	4	5	4
2	2	2	4	4
3	2	3	4	2
4	1	2	2	1
5	2	2	4	2
6	2	2	2	2
7	4	4	2	2
8	2	5	4	4
9	2	2	2	2
10	4	2	4	2

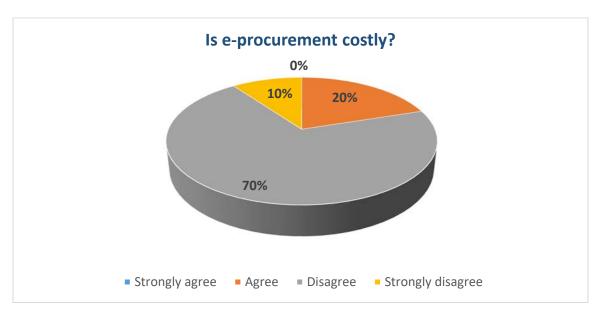
	Q1	Q2	Q3	Q4
Strongly agree	0	1	1	0
Agree	2	2	5	3
neutral	0	0	0	0
Disagree	7	6	4	6
Strongly disagree	1	1	0	1

Findings from the questionnaire

Is e-procurement costly?

I asked this question to find out if the respondents think this software is a value for money or not. If it is bought in one-time payment basis rather than per monthly/user basis; it is costeffective. From the data, we can see that 20 % agreed, 70% disagreed and 10% strongly disagreed on the fact that the software is costly which indicates it is a good investment for the company in long run.

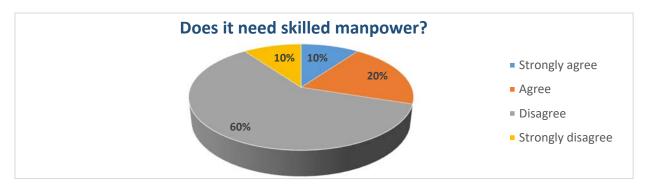
Figure 22



Does it need skilled manpower?

The question was asked to find out if the software needed special expertise to use. From the result we can see that 10% strongly agreed,20% agreed, 60 % disagreed and 10 % person strongly disagreed on fact that it needs skilled manpower. To use a new software everyone needs expert guidance at first and they get the competency over it eventually.

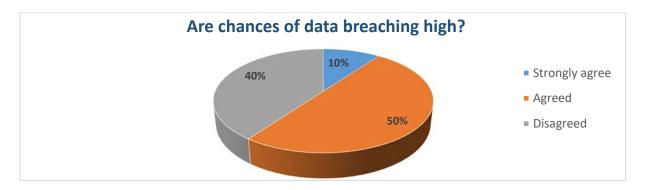
Figure 23



Are chances of data breaching high?

This question was asked to find out about the safety of the sensitive data. From the result we can see that 10 % strongly agreed,50 % people agreed and 40% respondents on the statement that chances of data breaching is high. Getting the software from a reliable source and encrypting data can help in this scenario.

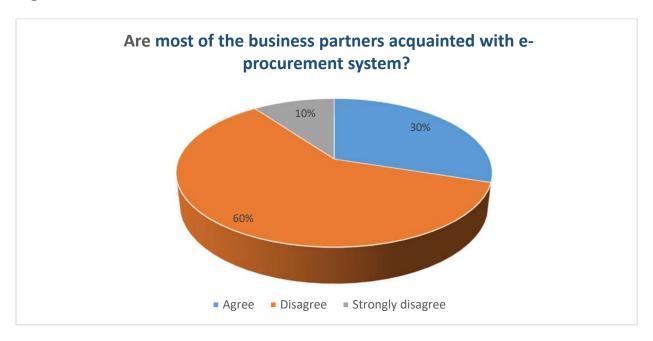
Figure 24



Are most of the business partners acquainted with e-procurement system?

This question was used for finding out if the business partners of our repondents are acquianted with any type of e-procurement software. The result shows 30% people agreed, 60% people disagreed and 10% people strongly disagreed on the statement that most of their business partners are acquianted with e-procurement softwares.

Figure 25



3.4 Summary and Conclusion

With the advancement in technology, business sectors all over the world have become more reliable to electronic support services. Omera Gas One Limited is one of the most successful companies in the LPG industry of Bangladesh. The company has earned its popularity within a very short period of time. OGL has taken the advantage of integrating e-procurement into their supply chain management in order to achieve their business objectives such as sustainability, profitability and mainly operational effectiveness. For such a large company like OGL, implementing e-procurement practices has given them better insights to which areas, where cost can be reduced or which contracts are more valuable to them. As the LPG industry in Bangladesh is growthing at a very fast rate and more new competitors are trying to enter the market, it is very important for Omera Gas One to stay one-step ahead in the industry. The supply chain management and e-procurement always goes hand-in-hand with each other and hence, efficiency in the procurement process not only elevates the procurement department, but it elevates the entire company as a whole.

3.5 Recommendations:

The process of e-procurement allows a company to save money and at the same time, it improves the efficiency of the supply chain. Hence, all organizations should adopt e procurement in their business. The government of Bangladesh should introduce policies for making this technology more available to both private and public organizations. This will also increase the chances of choosing the best supplier company for e-tendering. Then again, more training and developmental programs can be arranged, which will help to have better skilled workers in the industry. Besides, it is true that business partners are not acquainted with this system. In this case our job is to create

awareness about it to our business partners so in result it will make our life a lot easier by minimizing the workload. Moreover, it is critical to state that the data security needs to be assured through a strong IT framework to protect sensitive data of a company from unauthorized access.

Thus, the entire process will become more convenient for departments and it will help them to become more skilled in overcoming the challenges of business risks & technological risks and all other risks related to e-procurement based services.

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Appendix

Questionnaire 1

E-procurement Technology Usage on Supply Chain Performance Questionnaire using five-point LIKERT Scale:

Please use the following scale to answer each item:

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Please indicate ($\sqrt{}$) the number which indicates the performance of the Supply Chain Management that accurately fits your judgment:

Did the implementation of e-procurement has improved the following areas when compared to the conventional one by:

Q1. reducing the lead time	1	2	3	4	5
Q2. managing inventory effectively	1	2	3	4	5
Q3. reducing paperwork	1	2	3	4	5
Q4. minimizing man-hours in handling orders	1	2	3	4	5
Q5. managing data efficiently	1	2	3	4	5
Q6. reducing unethical practices	1	2	3	4	5

Questionnaire 2

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
1	2	3	4	5	

Please indicate($\sqrt{\ }$) the number which fits your judgment for the following statements:

Q1. E-procurement is costly	1	2	3	4	5
Q2. It needs skilled manpower to run it	1	2	3	4	5
Q3. Chances of data-breaching are high	1	2	3	4	5
Q4. Most of your business partners are acquianted with e-procurement	1	2	3	4	5