

Report On
**“The prospective contribution of LPG in the entire energy grid
for the sustainable development of Bangladesh.”**

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Bachelor of Business Administration

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June 2021

Declaration

It is hereby declared that

1. The internship report submitted is my 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 have acknowledged all main sources of help.

Student’s Full Name & Signature:

Student Full Name
Student ID

Supervisor’s Full Name & Signature:

Supervisor Full Name
Designation, Department
Institution

Letter of Transmittal

Tania Akter
Lecturer,
BRAC Business School,
BRAC University
66 Mohakhali, Dhaka-1212

Subject: The prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh.

Dear Madam,

This is my pleasure to display my entry level position provide details regarding ‘The prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh’, which I was appointed by your direction.

I have attempted my best to finish the report with the essential data and recommended proposition in a significant compact and comprehensive manner as possible.

I trust that the report will meet the desires.

Sincerely yours,
Farzana Yasmin Beauty
16304067
BRAC Business School
BRAC University
Date: June 07, 2021

Non-Disclosure Agreement

This agreement conducts between me as a student of BRAC University and Bengal group through 3 months internship program. The agreements are given below-

- I have to report on my reporting boss every day during the internship period.
- I have to follow all the terms, policies and conditions of Bengal group.
- I have to work very carefully.
- The company have the rights to cancelation of my internship if I will do anything that goes against their policies.

Acknowledgement

I am very glad to have a chance of doing internship in Bengal Group. For that I am really grateful to Almighty Allah who give me the chance of completing the internship and as well as the report by the given time period.

Secondly, I would like to thank my respective supervisor Tania Akter who instructed me with each and every content regarding this internship report and helped me in any kind of problem that I faced during doing the report. I am also very grateful to be a student of BRAC University from where I could develop my knowledge and skill.

Moreover, I also want to thank my respective supervisor Engr. Md. Sabbir Hossain in my organization who helped me all lot during the whole internship period. He teaches me each and every work which improves my skills.

Executive Summary

In this whole report, I have shared my experience that I gathered during the internship period in Bengal Group. This internship report is a part of BRAC University BBA program. Throughout the whole internship period I have learnt lots of skills and practical knowledges which would be helpful for me in the near future job life. In Bengal Group, I have worked with sales and marketing team of Bengal LPG Ltd. and I took a topic (The prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh) for my internship report.

In this paper, the first chapter is about the experience that I have gathered during the internship period. In the second chapter, there is an overview of the Bengal Group where I have done my internship program. There is a details overview about the company history, management system, marketing system, accounting & financial practice, current market situations, IT system etc.

In the third chapter which is findings and analysis part, I have done with an online survey on my selected topic that how LPG does impact on the development of Bangladesh. I have got 30 responses during the online survey and analyzed the findings and given some recommendations.

Table of Contents

Declaration.....	ii
Letter of Transmittal	iii
Non-Disclosure Agreement	iv
Acknowledgement.....	v
Executive Summary	vii
Table of Contents	vii
List of Tables	viii
List of Figures	ix
List of Acronyms	ix
Chapter 1 Overview of Internship.....	1
1.1 Student Information	1
1.2 Internship Information	1
1.3 Internship Outcomes	2
Chapter 2 Organization Part: Overview, Operations and a Strategic Audit.....	4
2.1 Introduction.....	4
2.2 Overview of the Company.....	6
2.3 Management Practices.....	9
2.4 Marketing Practices.....	10
2.5 Financial Performance & Accounting Practices.....	12
2.6 Operations Management and Information System Practices.....	13
2.7 Industry and Competitive Analysis.....	15
2.8 Summary and Conclusions.....	22
2.9 Recommendations.....	22
Chapter 3 Project Part: Brand Establishment of Tiger Cement	22
3.1 Introduction.....	22
3.2 Methodology.....	23
3.3 Findings and Analysis.....	24
3.4 Summary and Conclusions.....	35
3.5 Recommendations.....	36

References	37
Appendix A.....	39

List of Table

Table 1: History of Bengal Group	7
Table 2: Market price of different LPG company	21
Table 3: CV of Fuel	26

List of Figure

Figure 1: Organization Organogram	8
Figure 2: Distribution of Goods	11
Figure 3: Crude Price of LPG	16
Figure 4: SWOT Analysis	17
Figure 5: LPG Consumption by sector.....	20
Figure 6: LPG Market Share by Brand	21
Figure 7: LPG Consumption in Bangladesh.....	24
Figure 8: LPG Import Forecast.....	25
Figure 9: Price of energy sources in Bangladesh.....	26

List of Acronyms

BLPGL Bengal Liquefied Petroleum Gas Limited

GM General Manager

AGM Assistance General Manager

MD Managing Director

Chapter1

Internship Overview

1.1 Information's of student

Name : Farzana Yasmin Beauty

ID : 16304067

Program and Major/ Specialization: Marketing

1.2 Information's of internship

1.2.1 Period: 1st February, 2021 to 2nd May, 2021 (Three Months)

Company Name: Bengal Group of Industries

Department/ Division: Operations, Sales and Marketing

Address: 68, Richmond Concord, Level-7, Gulshan Avenue, Gulshan-1, Dhaka- 1212.

1.2.2 Internship Company Supervisor's Information-

Name: Eng. Sabbir Hossain

Position: Senior Executive, Operations.

1.2.3 Job Scope – Job Description/Duties/Responsibilities:

- Dealing with the distributors or dealers.
- Arranging meeting with distributors or dealers.
- Analyzing dealer's business profile.
- Contacting regularly with the dealers.
- Managing corporate affair documents.
- Enlisting and sorting data of distributors.
- Market analysis for LPG.
- Making WO, SO, PI, Invoice.
- Video editing, making power point slides and presenting.
- Making research report for the organization.
- Preparing different types of Requisition.

1.3 Internship Outcomes

1.3.1 Student’s contribution to the company: During internship, there have a huge contribution of a student to the organization. We know that the organizations offer 15000-30000 Taka monthly salary to the entry level employees. Whereas, organizations offer 3000-5000 Taka allowance per month to the intern and sometimes they offer unpaid internship program. So, it is a huge opportunity for the organizations that they can recruit a full-time employee by giving a minimum allowance or free. Moreover, with the help of interns, organization can minimize their workloads. Furthermore, organization can also be done analytical works by the help of interns such as doing survey and making reports.

1.3.2 Benefits to the student: A student can be benefited in many ways through an internship program-

- Students can get the opportunities to work in a corporate environment through an internship program.
- They can get the corporate level work experience and knowledge.
- They can learn the work and time management systems.
- Students can get knowledge about how to behave in corporate sector.
- Their interactive and communication power can be more developed through this internship program.
- In addition, there can be create an opportunity to get chance to become a permanent employee after internship program or right after graduating.

1.3.3 Problems/Difficulties (if any faced during the internship period): First of all, I did not face that much problem during the internship program in Bengal Group. But at the very beginning I faced little difficulties to cope up with my co-workers and communicate with others. One more problem was that I had to work 6 days per week.

1.3.4 Recommendations (for and suggestions to the company on future internships)-

Recommendations for the Company: I would like to recommend Bengal Group of industries for internship program because they are really much cooperative to the intern students and they offer an appropriate allowance with other benefits as well.

Recommendations to the Company: The organization should pay more attention to their internal corporate culture and environment and have to try to decrease the day per week.

Chapter2

ORGANIZATION PART: OVERVIEW, OPERATIONS AND A STRATEGIC AUDIT

2.1 Introduction-

i. Objective:

- Superior quality and prompt service are hallmarks of the organization.
- Customers' needs are prioritized.
- Enhance the process of working.
- Assuring the highest level of quality of the LPG.
- Maintain the company's brand identity and status.

ii. Methodology:

Here I have used two types of methodology, primary data and secondary data to collect data about the organization.

- **Primary data:** Basically, primary data is collected through face-to-face interview and survey. I have collected primary data through talking with AGM, senior executives, managers, colleagues and other members of the company.
- **Secondary data:** I have collected secondary data through visiting on the company websites, news, articles etc.

iii. Scope:

In my whole internship period, I worked on sales and as well as operations departments in Bengal LPG Ltd. During this internship period I have learnt lots of operational activities and as well as sales activities of LPG. In this report, I will mention all the data about the company that which process they follow to manage their strategies and I will also mention the contribution of LPG in the energy grid.

iv. Limitation:

- Limited time.
- Limitations of collecting data from other departments.
- Lack of availability of information.
- A lack of realistic learning opportunities.

v. Significance:

Interning at a company like Bengal Group of industries has a lot of benefits. During this internship period I have gained a vast knowledge about the entire LPG sector of Bangladesh as well as Bengal LPG Ltd. I have also developed my corporate behavior by this time. Furthermore, in this time I have gained an understanding of my corporate activities. There are more advantages of doing internship which are given below-

- ❖ **Connectivity:** A student can build their connectivity with the professional persons. Through those corporate people a student can be benefited later on.
- ❖ **Professionalism:** With the help of internship program, a student can develop his or her soft skills and can learn about the professional behavior which could help them to get better job opportunities.
- ❖ **Strong Resume:** Through internship program, student can get three to four months corporate work experience which helps them to make a strong resume and find a job.
- ❖ **Develop confidence level:** Internship program helps students to develop their confidence level as they worked in a corporate environment.

2.2 Overview of the Company:

In Bangladesh, there are many groups of industries and Bengal Group of Industries is one of the leading groups among those. They have started their journey with the Bengal Plastic Ltd. back in 1969 located in old Dhaka. Now a day, they are top leading Plastic Industry in Bangladesh. Moreover, they are not limited in the plastic industries but also have their other concern as well. They have total 32 concern under their Bengal Group of industries such as, real estate, metal, paper, electronic media, chemical, renewable energy, cement etc.

The history of Bengal group of industries:

1969	In old Dhaka, owner of Bengal group started his business with Bengal Plastic company.
1971	After independence, Morshed Alam the owner of Bengal group began jute & textile company.
1978	Domestic utensils were started to manufacture like, plate, jug etc.
1980	Bengal Adhesive and Chemical Products start to make adhesives.
1981	This company registered with the Joint Stock Company in Dhaka, Bangladesh.
1991	They were coming up with the plastic hangers.
1993	Got a deal with Coca-Cola to make the Plastic bottle in Bangladesh.
1994	Got the license of manufacturing products for A&E Group.
1995	Bengal Overseas Corporation Ltd., started export & import different kind of products.
1998	Got the license of Scheoller Wavin System. Owner of the company, Morshed Alam got award.
1999	The plastic company was growing very well.
2000	Director of the company, Mr. Jashim Uddin got award.
2001	Power Utility Bangladesh Ltd.- an energy company had started.
2002	Bengal Poly & Paper Sack Ltd. had started. Bengal Plastic Industries Ltd. got ISO 9001:2000 certification.
2003	Bengal Corrugated Carton Industries Ltd. had been started.
2004	Rahmania Biscuits & Bread Industries Ltd. has been started. Hamilton Metal Corporation Ltd. has been started.
2005	Polycord Ltd. - has been started. Bengal Windsor Thermoplastics Ltd. - received ISO 9001:2000 certification.
2006	Bengal Concept & Holdings Ltd. has been started their journey.
2007	National Television Ltd., (RTV) - has been started their journey.

2008	Bengal Plastic Industries Ltd. , got DHL-Daily Star Award- Bengal Polymer Wares Ltd. got ISO 9001:2008 and ISO 14001:2004 certification.
2009	Bengal Plastic Industries Ltd. got National Export Trophy (Gold) for 2007-2008. Bengal Polymer Wares Ltd. re-launched Houseware products.
2010	Bengal Group has received Super brands Award Romania Food & Beverage got ISO 22000 certification.
2011	Bengal Plastic Pipes Ltd.- started to make uPVC & pipes and uPVC door and door.
2012	Bengal Renewable Energy Limited has been started.
2013	Bengal Windsor Thermoplastics Ltd. listed to the Dhaka Stock Exchange and Chittagong Stock Exchange as a public limited company. Bengal Group of Industries had been started a hotel project. Designer Washing & Dyeing Ltd. incorporated in this year.
2014	Designer Jeans Ltd. has been started the journey. Bengal Cement Ltd. incorporated.
2015	Incorporated Bengal Melamine Ltd., Hamilton Mold & Engineering Ltd., Bengal Retails Ltd., Linnex Electronics Bangladesh Ltd. Bengal Plastics Limited issued commercial papers for short term financing and successfully repaid its liability accordingly.
2017	Bengal LPG Ltd. - Have started their new project on LPG.

Source: Bengal group.com, 2021.

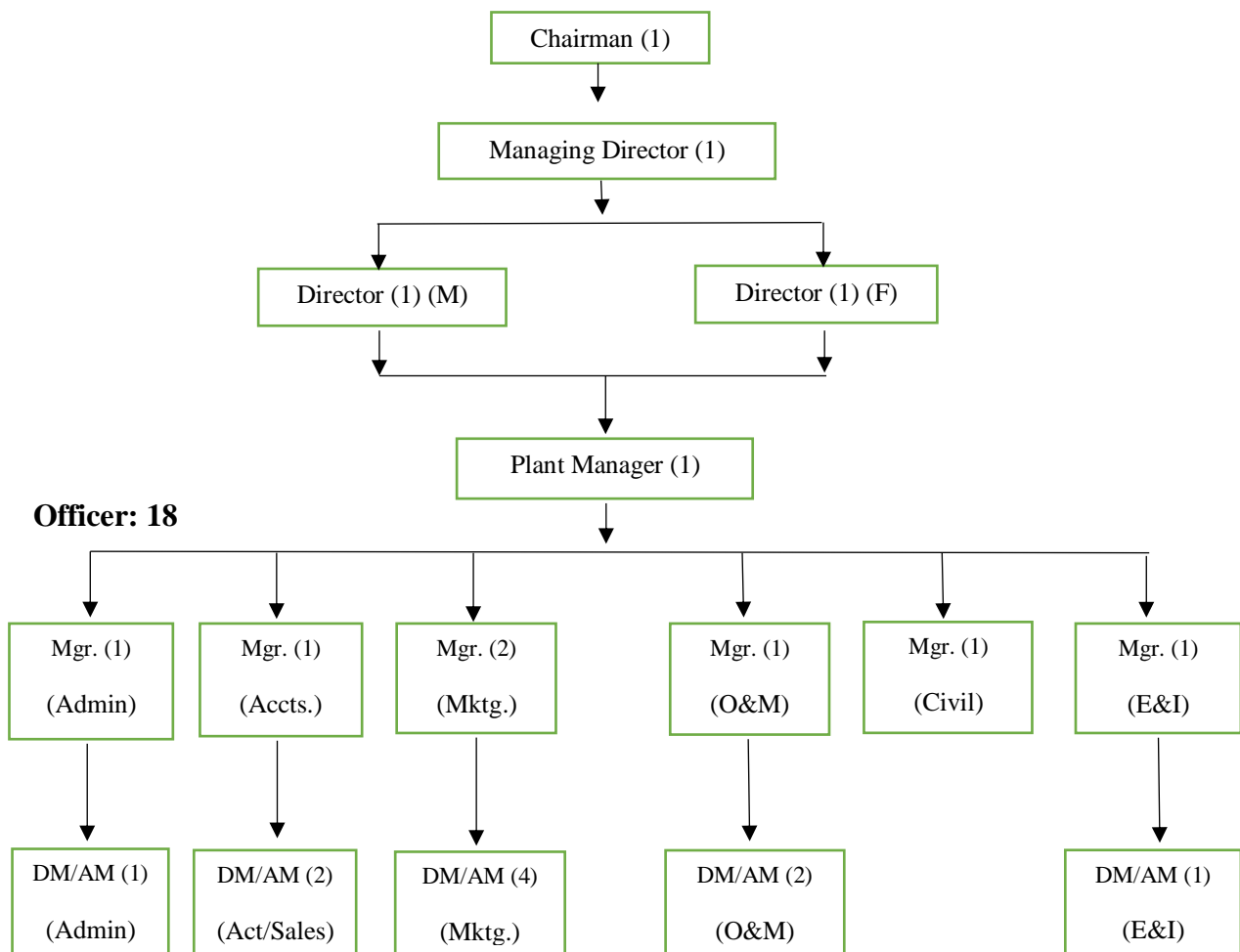
Table 1: History of Bengal Group

2.2.1 Mission & Vision:

Mission: Our mission is to strive continuously to exceed customers' expectations for achieving unlimited excellence by providing greater value to our customers than our competitors.

Vision: Our goal is to be the best company in our industry and it is our policy to deliver total quality goods and services to all of our customers. We accomplish this by adopting a set of quality policy throughout the organization.

2.2.2 Organogram:



Admin: 27	Accounts: 4	Engineering: 28
Comp. opt./Store Keeper = 3 Driver = 7 Peon = 2 Security = 16	Sales asstt. /accts. Asstt. = 4	Tech/opt. = 4 Asstt. Tech./ opt. = 8 Helper = 16

Source: Bengal LPG Ltd. company profile, 2021.

Figure 1: Organization Organogram

2.3 Management Practices:

2.3.1 Empowering Employees:

In Bengal group, there are many kinds of management practices and empowering or inspiring employees is one of them. Here employees are empowering through different kind of activities done by management team such as increments, promotions etc. In Bengal group, within 1- or 2-years employees are given offer for the incrementation. Furthermore, they are promoted as well according to their activities. Moreover, employees are getting the chance to go for a yearly based official tour and as well as get the common government holidays.

2.3.2 Arranging Meetings:

Company’s management department plays a vital role for creating a bridge among the top-level director groups and the employees. They fix up meeting on every week.

2.3.3 Coming with new technologies:

Employees of Bengal group can get chance to practice of different advanced technologies which helps to make work easier. They are also using advanced software through which work is completed by 10 times faster.

2.3.4 Training Employees:

In Bengal group, management team arranges training session for new comer employees, especially for the sales unit’s employees who has to go for the field work. Through this kind of training session employees can gather knowledge on their specific work.

2.4 Marketing Practices:

2.4.1 STP Analysis:

i) Segmentation-

Demographic Segmentation:

- **Income:** (50,000-1,00,000); (1,00,000-1,50,000); (1,51,000-5,00,000) TAKA per month.
- **Gender:** Male & Female
- **Age:** 25-65 years.

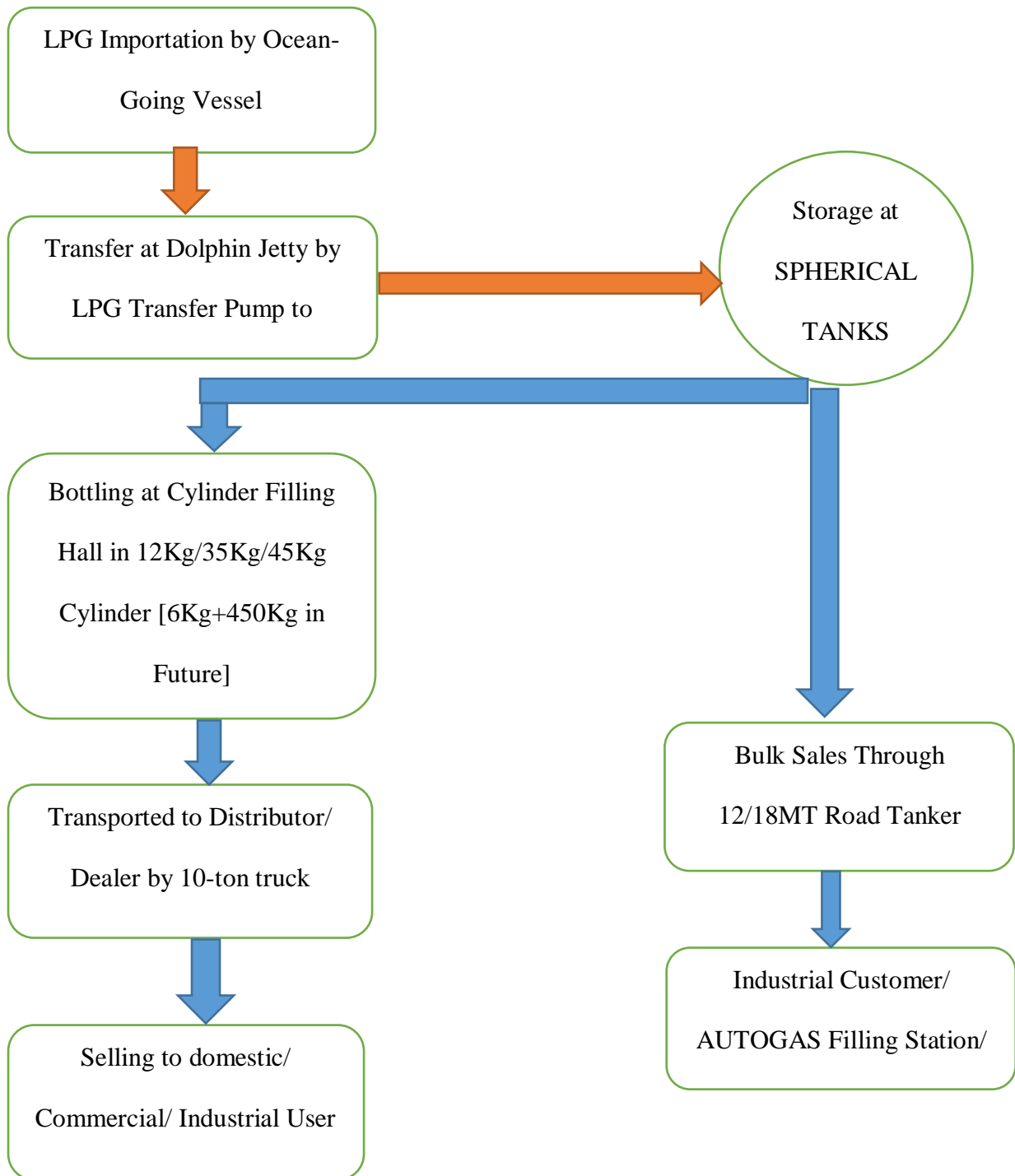
ii) Targeting-

The largest contributor to the energy supply balance in rural & sub-urban areas by far comes from traditional fuels such as fuel wood, cow dung and agricultural wastes. Almost all the rural households use these traditional fuels for cooking, while it is estimated that some 80% of urban/ sub-urban/ rural households depend on fuel wood as their primary cooking fuel. In addition, there is extensive use of fuel wood in commercial cooking such as tea house, restaurants; as well as certain industries such as brick-burning houses all over Bangladesh. So, these are their targeting market.

iii) Positioning-

As a new comer in the market, Bengal LPG wants to set their positions on the consumer's mind. They are trying to come up with an appropriate advertisement so that they can get their required positions on the consumer's mind. On the other hand, they have plans for the better positioning such as road side sign board etc.

2.4.2 Distribution of Goods:



Source: Bengal LPG Ltd. company profile, 2021.

Figure 2: Distribution of Goods

2.4.5 Advertising:

As Bengal LPG Ltd. has not launch yet, so they do not make any kind of advertisement.

2.4.6 Promotion:

Currently Bengal LPG Ltd. are promoting their company through social media such as Facebook, LinkedIn etc.

2.5 Financial Performance & Accounting Practices:

As Bengal LPG Ltd. has not started their journey yet so there have no financial occurrence regarding sales and sales related activities.

2.5.1 Analysis of budget:

As a new company, accounts department is only working on the expenditure related activities. There is no revenue generation yet but the accounts department are trying to minimize the overall expenditure rate.

2.5.2 Preparing voucher:

Vouchers are prepared by the accountants to keep all the transections data in details. The compositions of a voucher are serial no, type, date, debit column, credit column, amount of figures, total column and particulars which are filled by time of preparing.

2.5.3 Posting Journal:

The activities of a company are written down and passed into the ledger by posting journals.

2.5.4 Tax & VAT:

Vat & tax accounts are practicing by the finance and accounts department. They keep all the data accordingly which helps to maintain records.

2.5.5 Report making & evaluating:

Report making & evaluating is essential activity for accounts department. After completing all the task, they have to make the reports and evaluated that by the account’s manager.

2.6 Operations Management and Information System Practices:

2.6.1 Operations management

Operations management plays a vital role in a company. It helps to convert raw materials into products. This process includes:

❖ Planning

In this process, a company have to choose a suitable location for the business where they can produce the goods in a cost-effective way. The place should be located where raw materials, transport and labor would be available. **Bengal LPG Ltd.** is located in Mongla at the bank of Poshur river (Bengal LPG company profile, 2021). So, the carrying procedure of LPG become easier and over all it is cost effective as well.

❖ Scheduling

Here company fix the scheduling to finish the work on time and perfectly. Without scheduling they can not finish their production work timely so this is an important process. Bengal LPG Ltd. is trying to fix their scheduling so that they can ensure the timing of delivery.

❖ Organizing

With this process, company organize the work task that who will do what task and divide the task among them.

❖ **Purchasing**

To start and running a company, they have to purchase different kind of raw materials, machineries, transports etc. so they have to plan where, to whom and how cost effectively they can purchase these.

❖ **Controlling**

Through this process, company can evaluate the production with the planning. And also evaluate the quality of the goods that where it is met the expected quality or not.

2.6.2 Information system practices:

Information system is an important function of an organization. It helps to control, store and maintain all the data of the organization. The system includes:

➤ **Hardware**

Hardware includes the devices that the company provides to their employees to do their work properly such as computer, laptop, mobile phone, SIM etc.

➤ **Software**

Bengal group use a renowned software to do their all type of confidential work.

➤ **Data**

To run a company or organization, they have gathered different kind of information for analysis.

➤ **People**

This is a human resource of an organization. By using this human resource company can produce their goods.

➤ **Process**

The mechanism via which one company can attain a specific goal is referred to as a process. All of these feature's aid in the collection, filtering, processing, creation, and distribution of data.

2.7 Industry and Competitive Analysis:

2.7.1 LPG industry

In Bangladesh, LPG industry is one of the biggest industries. It has a great contribution to the economy of Bangladesh. As the Natural gas is not renewable sources to use so the demand of Liquefied Petroleum Gas is growing up year on year. It has been used in different sectors such as industries, domestic, automobiles, agriculture, chemical etc. So, every year the price of LPG is extended as well. In Bangladesh, LPG sector is owned by two public company and some other private company as well.

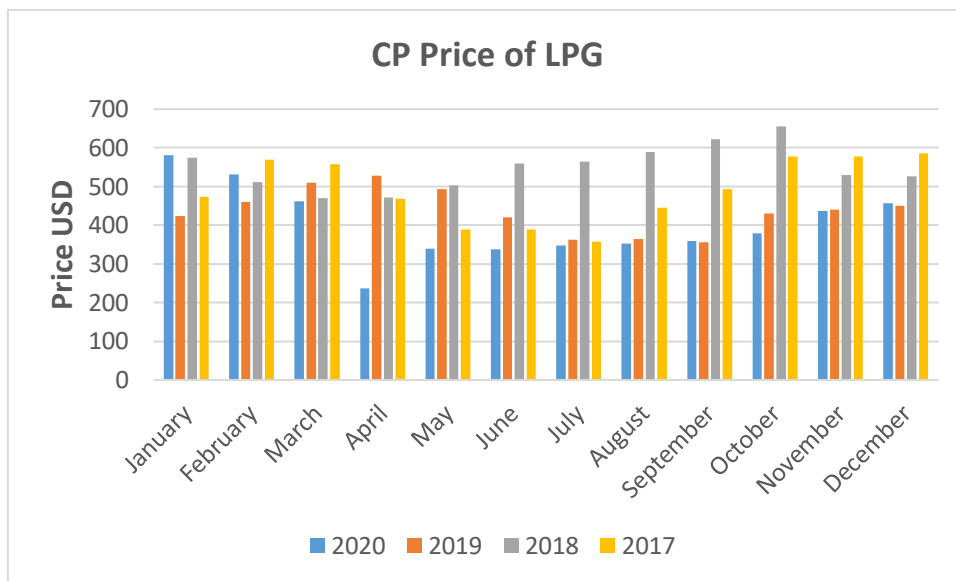
LP gas is an intermediate product that exists between natural gas and crude oil. LP Gas is one of the common fuels in our country where natural gas is not available. Gradually it has become a very popular fuel in the country.

LP Gas provides Bangladesh with a safe and portable alternate energy source. Its clean burning properties help to reduce the pollution that results from burning of natural resources such as wood and charcoal, which are traditionally being used. The main machinery and equipment of the project has been proposed to be imported from China, south Korea, Denmark, France and EU.

The purpose of design is to install an LPG importation terminal (equipped with LPG Handling Dolphin Jetty), spherical storage tank to store pressurized LPG, LPG Filling carousel to fill LPG in 12.5 Kg, 33 Kg & 45 Kg bottles, capability to dispatch LPG in 18 MT road tanker, 12 MT LPG bobtail tanker, dispatch LPG in inland river-going cargo vessel, and office set-up facility to build a strong distribution network all over the country.

Crude Price of LPG

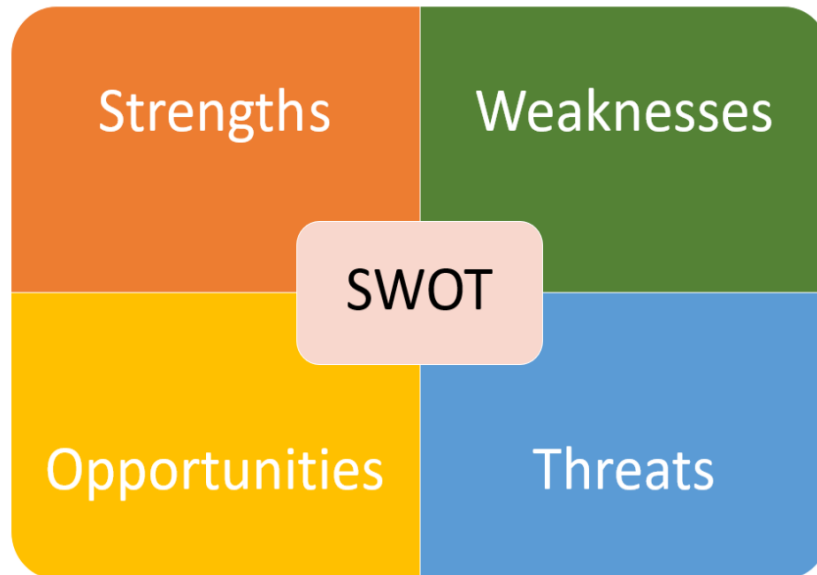
As the demand of LPG is increasing day by day so the ultimate price is also increasing which is on an average 30%. In 2017 (3MCO,2021), the average price was 450 to 500 USD respectively but in 2018, the price was increased by 540 to 600 USD respectively. On the other hand, in the international market place the price of LPG has declined around 50%. In 2019 (3MCO,2021), the price was average 440 USD and in 2020 it was decreased by on an average 400 USD. Although, the price of LPG in international market is low but in Bangladesh the price is going up. As the domestic users of LPG in Bangladesh are going up so the demand is going up as well.



Source: 3MCO, SAUDI ARMCO LPG PRICES, 2021.

Figure 3: Crude Price of LPG

2.7.2 SWOT Analysis



Source: Tallyfy, 2020.

Figure 4: SWOT Analysis

Strengths

It refers to positive internal factors which works as competitive advantages for an organization. The strengths of Bengal Group are-

- ❖ **Strong Brand name:** Bengal group has good brand name and also known to people very well. Which is a strength for the organization.
- ❖ **Work environments:** The company has well organized internal working environment. Which helps to influence employees to do work properly. The other stuffs are enough friendly and supportive.
- ❖ **Good reputation:** Bengal Group has good reputation in Bangladesh as it is an old and good quality organization.

Weaknesses

Weaknesses refer to internal negative factors. Though Bengal group has many strengths which are helping them to reach their goal but there are some shortcomings as well. Weaknesses create difficulties to gain the goal. Some weaknesses of Bengal group are-

- ❖ **Employee turnover:** Bengal group has a huge number of employee turnover in every year because of its internal clash, low range of salary, no yearly incrementation etc. They offer 15000 BDT as starting salary where other company offer around 25000 BDT for starting salary.
- ❖ **Administrative mismanagement:** There have some administrative mismanagement. For example, it took too much time after giving any requisition for any kind of utilities or equipment.
- ❖ **Lacking's of Promotional work:** Currently, promotional activities of Bengal Group is decreasing which can be affected consumer's mind.

Opportunities

It refers to external positive factors. Which helps to achieve the goals of the projects. The opportunities are-

- ❖ **New technology:** Using advanced technology is a good opportunity for the company. Through which they can follow the new trend.
- ❖ **Demand Supply gap of LPG:** As the demand of LPG is increasing but the supply is not enough to meet the demand so there is a gap between the demand and supply. So, this is a great opportunity for Bengal LPG Ltd.

- ❖ **Increasing oil & fuel price:** The price of oil & fuel is increasing day by day. So, people are looking for alternatives. Here, LPG can be a good alternate which is reasonable in price.

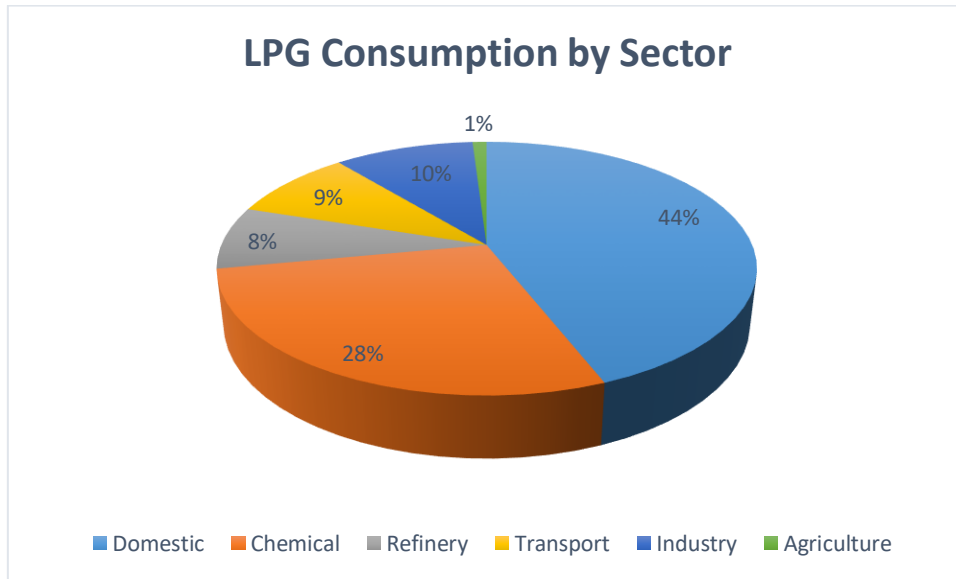
Threats

Threats refer to negative external factors. Which are-

- ❖ **Huge Competition:** There are huge competition in LPG industries. There are many companies which are already leading in the market. So, this would be a big threat for Bengal LPG Ltd.
- ❖ **Government regulations:** In every country, there are some government regulations which makes difficulties to business smoothly. So, this can be a threat for the company.

2.7.3 LPG Consumption by Sector

In Bangladesh, LPG is consumed by many sectors such as Industry, Domestic, Transport, Agriculture, Chemical etc. In the below chart, it has been seen that the dominated sector is domestic sector where 44% of total LP gas is used for cooking, room and water heating (Engr. Md. Jakaria Jalal, 2019). As Bangladesh is under developing country so in domestic sector, LPG is mainly used as cooking fuel. The second dominated sector is Chemical sector where 28% of total LP gas is used (Engr. Md. Jakaria Jalal, 2019). Consumption in the industrial sector is not small, it is 10% of total gas (Engr. Md. Jakaria Jalal, 2019). In Transport and Refinery sector LPG is used respectively 9% and 8% of total gas where LPG called as Autogas (Engr. Md. Jakaria Jalal, 2019). LPG is more environment friendly as terms of emissions. Consumption rate in Agricultural sector is not that much, only 1% is used in this sector (Engr. Md. Jakaria Jalal, 2019). In agriculture sector, LPG plays an important role in terms of production. LPG is used in collecting crops, drying crops, flaming, livestock etc. as the agriculture sector requires Sulphur free and clean fuel so that there would be no bad smell in dried crops. There are different kind of economic impacts because of consuming different rate of LPG in the different sector.

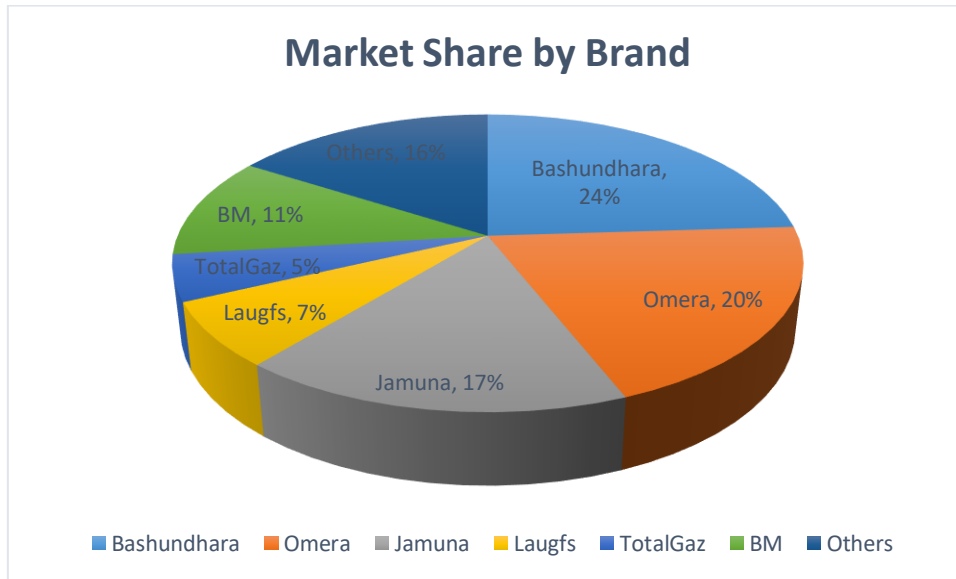


Source: Energy & Power Magazine, 2019.

Figure 5: LPG Consumption by sector

2.7.4 Market Share by Brand

There are many companies in LPG industry in Bangladesh but only one of them is publicly owned company. Most of the private companies are import based but only few companies have their own production facility such as Bashundhara. They can produce around one lakh tones of LP gas. In Bangladesh, most of the LPG Company belong to local brand. For example, Bashundhara, Jamuna, Omera, TK Gas etc. In the below chart we can see that in Bangladesh, the market is led by Bashundhara which is 24%, then Omera 20%, Jamuna 17%, BM 11% (DATABD.CO, 2019).



Source: DATABD.CO, 2019.

Figure 6: LPG Market Share by Brand

2.7.5 Market Price of different companies of LPG

SL no.	Company name	Dealer Refill price (Ex-factory)	Commission
1	Bengal LPG Ltd.	855	30
2	Omera	960	70
3	Fresh	950	50
4	Bashundhara	970	80
5	Total	980	100
6	G-gas	950	50
7	Lufgts	940	50
8	Uni	990	100
9	Euro	970	90
10	Petromax	950	50
11	Delta	960	70
12	Navana	940	50
13	Beximco	960	80
14	Jamuna	940	50
15	Orion	950	70
16	BM	970	70
17	JMI	960	80
18	Sena	950	50

Source: Bengal LPG Ltd. company profile, 2021.

Table 2: Market price of different LPG company

2.8 Summery & Conclusion:

Bengal Group is one of the leading groups in Bangladesh. They are trying to spread their business in different sector where they can position their brand name. Through their LPG concern they are trying to grab the LPG market where they are following many strategies. They have good brand image from back to till now and are trying to maintain their good reputation, quality of the production, satisfaction level of the consumers, use of advanced technologies.

2.9 Recommendation:

Bengal Group have to maintain the good relationship with their employees and also with their customers along with trust, honesty, reliability, impartiality. They also have to give more focus on CSR activities and promotional activities. Moreover, they need to focus on social welfare activities which helps to develop the society and culture of Bangladesh.

CHAPTER 3

PROJECT PART: The prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh.

3.1 Introduction:

3.1.1 Background

BBA program of BRAC University has the requirement of internship report to complete the internship program. Through this internship program students can experience the corporate working situation which helps them to adjust in the future working place. The main purpose of the internship is-

- To learn the corporate job life.
- Gaining knowledge about the LPG sector of Bangladesh.
- Complete the requirements of BBA program of BRAC University.
- To experience the actual work life with comparing the learned book lessons.

As University has the requirement of completing internship which carry four credits so I have to complete the program to complete the undergraduate program. Here, I have done with individual analysis for the research to find out the difference in the company. This research paper contains the analysis of the prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh.

Liquefied Petroleum Gas (LPG) has two components. It is a mixer of 35%-40% Propane and 60%-65% Butane. In Bangladesh, LPG has been used in many sectors such as domestic, industrial, agricultural, transport, chemical etc. As the demand cannot full fill by the supply of natural gas so the demand of LPG increasing year on year.

3.1.2 Objective

The objectives of the report are-

- To understand about the availability and consumption of LPG in Bangladesh.
- To evaluate LPG’s environmental safety issue than the other energy grid.
- To compare LPG with other energy grid.

3.1.3 Significance

During doing the internship report I have gathered a vast knowledge about the LPG industry. In LPG sector, the strategy is different as the cylinder have to be backed and going through a cycle process, from that strategy I have learnt a lot. The consumption rate of LPG in overall Bangladesh has been increased. As LPG do not produce carbon so this is environmentally safe than the other energy. It is also cost effective.

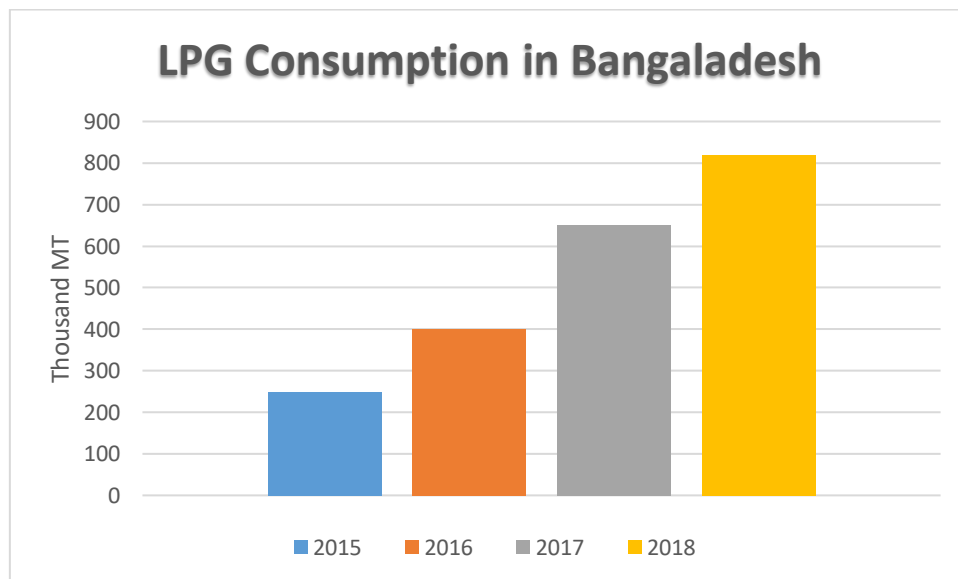
3.2 Methodology

In this report I have used two types of methodology to find out the information. I have used primary data and secondary data both. In primary data collection, I have made a questionnaire to understand the people’s mind about the LPG related questions. I have selected the people aged between 20-50 years for the survey. I have chosen different category of questions for the survey such as Likert scale, multiple choice, yes/no etc. This method of online survey is the easiest and fastest method of doing survey. In secondary method, I have also gathered some data from the website, online platforms, articles, news etc.

3.3 Findings and Analysis

3.3.1 LPG Consumption in Bangladesh

In Bangladesh, LPG consumption is increasing day by day. The demand is increasing year on year by 53% in the domestic (autogas.net, 2021), transport and commercial sector. Most of the LPG consumption occurs in the domestic purpose. On the other hand, the use of LPG in transportation has been increased instead of LNG. In the below chart, it has been seen that the consumption growth rate of LPG in Bangladesh which is rising up. In 2015, the consumption of LPG was 250000 MT in Bangladesh whereas in 2018 the consumption of LPG was 850000 MT in Bangladesh (autogas.net, 2021). So, it can be forecasted that in the next few years, LPG consumption rate will be higher than before.



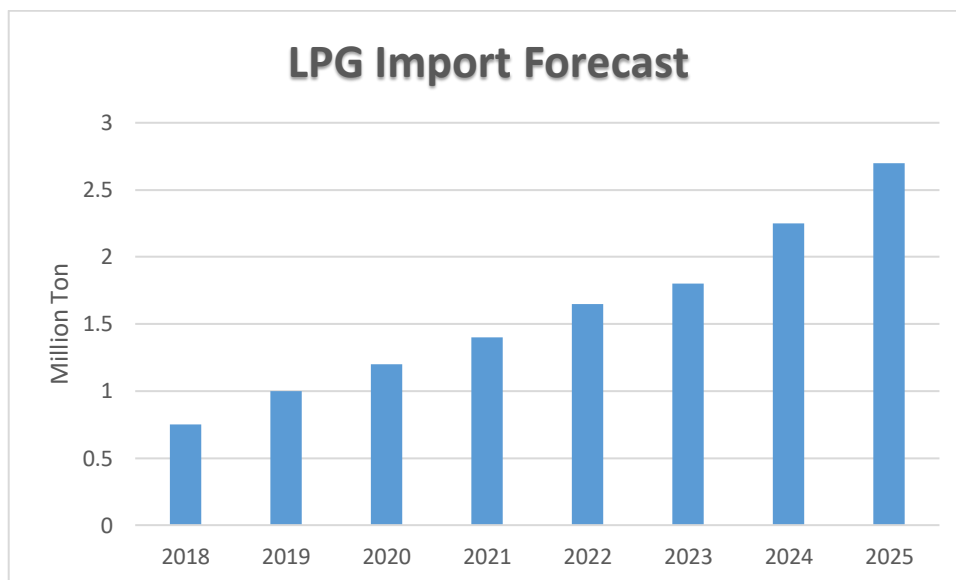
Source: Autogas.net, 2021.

Figure 7: LPG Consumption in Bangladesh

3.3.2 LPG Import Forecast

The import forecast presents us the thinking about the growth of the market. The LPG organization is commonly import oriented. 95% of whole LPG is imported in Bangladesh DATABD.CO. (2019).

The market is growing at a quickly tempo. However, the expected extent of import and manufacturing alternatively will no longer be sufficient to meet the anticipated demand for LPG. In the below chart we can see the 8 years import growth of LPG in Bangladesh, which is rapidly increased. In 2018, 0.75 million Tones LP Gas was imported in Bangladesh (DATABD.CO, 2019). On the other hand, after forecasting we can see that in 2025, 2.7 million Tones LP Gas will be imported in Bangladesh (DATABD.CO, 2019).



Source: DATABD.CO, 2019.

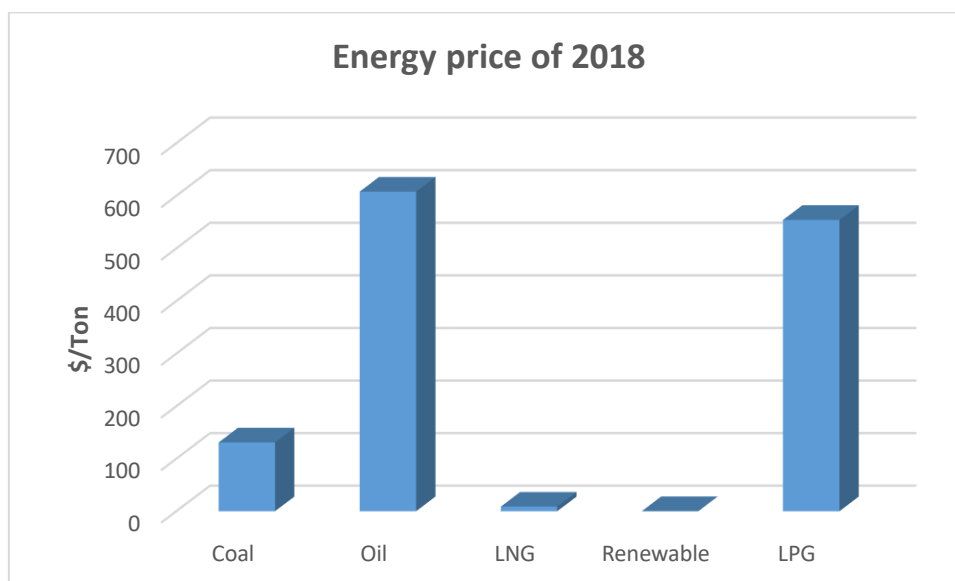
Figure 8: LPG Import Forecast

3.3.3 Price of other energy sources in Bangladesh

Different energy sources have different price range and it's always going through ups and downs. In 2018, the oil price was exceeded compare with other energy sources, which was 608\$ per ton (Bengal LPG company profile, 2021). Whereas, the LPG price was the renewable energy source which is solar energy, price was 0.23\$ per ton (Bengal LPG company profile, 2021). Price of solar energy is low but the set-up cost is high and difficult in Bangladesh. The

“The prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh”

price of LNG in 2018 was 8.72\$ per ton, oil price was 608\$ per ton coal price was 131\$ per ton etc. (Bengal LPG company profile, 2021).



Source: Bengal LPG Ltd. company profile, 2021.

Figure 9: Price of energy sources in Bangladesh

CV (Calorific Value of Fuel)

Fuel	Calorific Value of Fuel KJ/Kg (Approximately)
LPG	55000
Coal	33000
Petrol	45000
Diesel	45000
Methane	50000
Biogas	40000

Source: BYJU’S, 2020.

Table 3: CV of Fuel

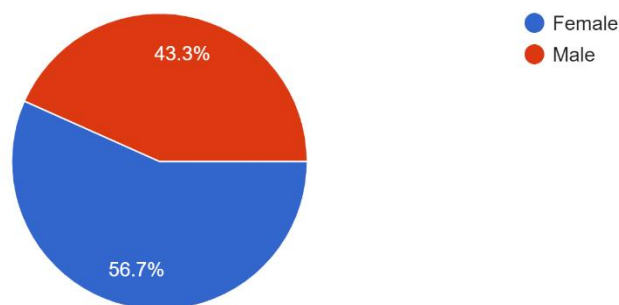
3.3.4 Environmentally Safe

LPG is actually produced from fossil sources and sold commercially. LPG combustion releases carbon dioxide, a significant greenhouse gas that contributes to global warming. However, compared to coal and oil, LPG emits less carbon dioxide per unit of energy. It emits 81 percent of the carbon dioxide released by oil, 70 percent of that produced by coal, and less than half of the carbon dioxide released by coal-fired energy delivered through the grid. LPG emits less carbon per joule than butane but more carbon per joule than propane since it is a mixture of propane and butane. In comparison to heavier molecule hydrocarbons, LPG burns cleaner because it produces less particulates.

This research paper contains the analysis of the prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh. There are 10 questions to do survey and 30 respondents have responded who are between aged of 20-50 years.

Findings of Question 1

1. Gender
30 responses



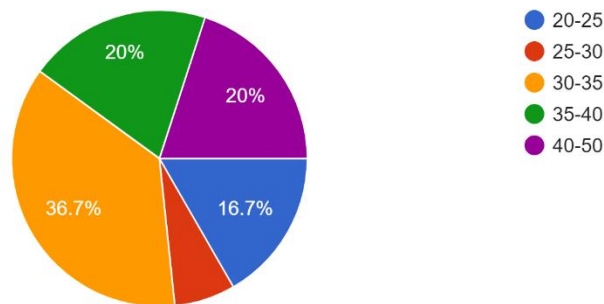
Female	56.7%
Male	43.3%

Analysis

For this survey, I have selected both male and female. The survey presents that 56.7% female and 43.3% male have responded. Female are really concern about the use of LPG now a day. They make the decision in terms of brand that they will buy. Male have also the buying of LPG.

Findings of Question 2

2. Age
30 responses



20-25	16.7%
25-30	6.7%
30-35	36.7%
35-40	20%
40-50	20%

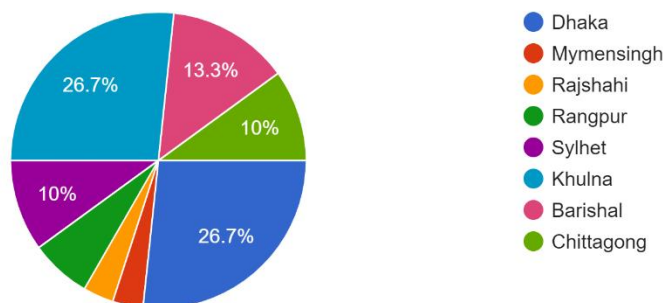
Analysis

I have selected the people aged between 20-50 years for the survey. The survey shows that the highest number of respondents are aged between 30-35 years which is 36.7%. This age group are the main buyer of LPG. On the other hand, other aged groups are also the buyer of LPG.

Findings of Question 3

3. Area of residence

30 responses



Dhaka	26.7%
Mymensingh	3.3%
Rajshahi	3.3%
Rangpur	6.7%
Sylhet	10%
Khulna	26.7%
Barishal	13.3%
Chittagong	10%

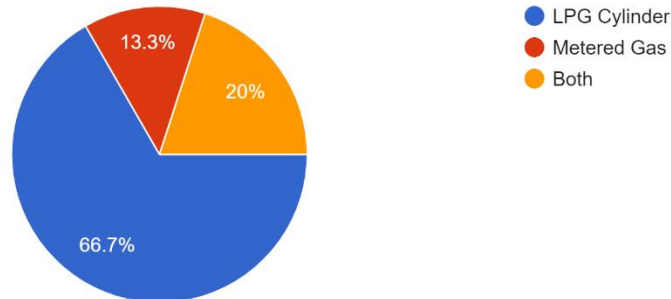
Analysis

The results show that most of the respondents are from Dhaka and Khulna division which is 26.7%, from Barishal it is 13.3%, from Sylhet and Chittagong it is respectively 10%, Rangpur is 6.7% and Mymensingh and Rajshahi is respectively 3.3%. I have select the people over the 8 division of Bangladesh.

Findings of Question 4

4. What type of gas connection do you have at your residence?

30 responses



LPG Cylinder	66.7%
Metered Gas	13.3%
Both	20%

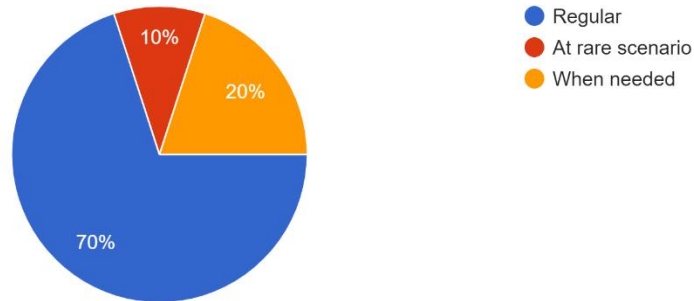
Analysis

The survey presents that 66.7% people are using LPG cylinder because of shortage of Natural gas supply, 13.3% are using metered gas because some area still has the supply of natural gas and 20% people are using the both LPG and metered gas because some time, they face the problem of having no gas supply.

Findings of Question 5

5. How often do use LPG?

30 responses



Regular	70%
At rare scenario	10%
When needed	20%

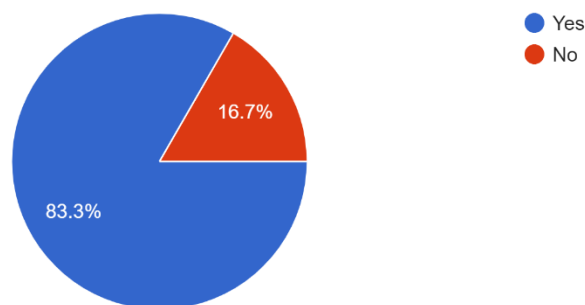
Analysis

The survey represents that 70% people are regularly using LPG as there are shortage of natural gas supply. At present in Dhaka city most of the housed are fully depend on LPG. On the other hand, 20% and 10% people are using LPG when they need and at rare scenario.

Findings of Question 6

6. Do you measure any safety while using LPG?

30 responses



Yes	83.3%
No	16.7%

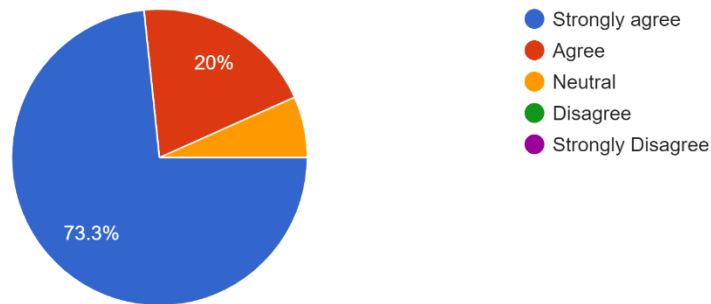
Analysis

The survey presents that 83.3% people are conscious about the safety issue while using LPG cylinder and other 16.7% people are not aware about the safety issue of using LPG.

Findings of Question 7

7. Uses of LPG is environment friendly than the oil and coal.

30 responses



Strongly agree	73.3%
Agree	20%
Neutral	6.7%
Disagree	0%
Strongly Disagree	0%

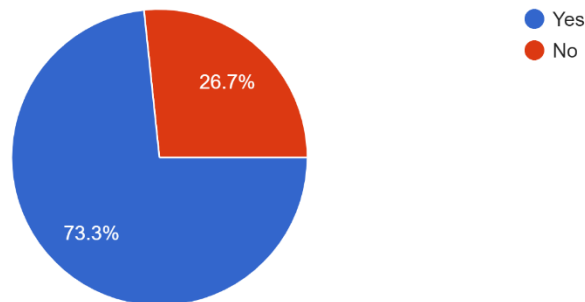
Analysis

The results shows that 73.3% people are strongly agree with that the uses of LPG is environmentally safe than the uses of oil and coal. When we use LPG, it produces no carbon but the use of oil and coal produce much carbon which is not safe for environment.

Findings of Question 8

8. Is the use of LPG cost effective?

30 responses



Yes	73.3%
No	26.7%

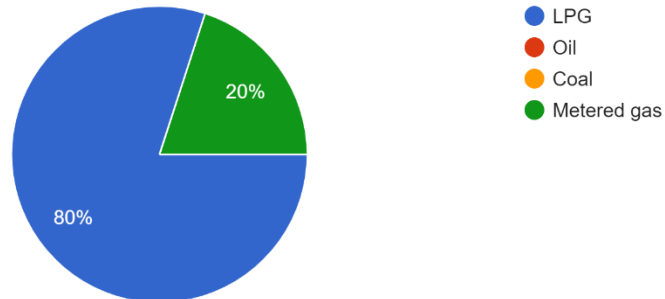
Analysis

The survey presents that 73.3% people say that the use of LPG is cost effective because the price of oil and coal are too much high than the LPG. On the other hand, 26.7% people say that the use of LPG is not cost effective.

Findings of Question 9

9. According to your prospective which one is better?

30 responses



LPG	80%
Oil	0%
Coal	0%
Metered gas	20%

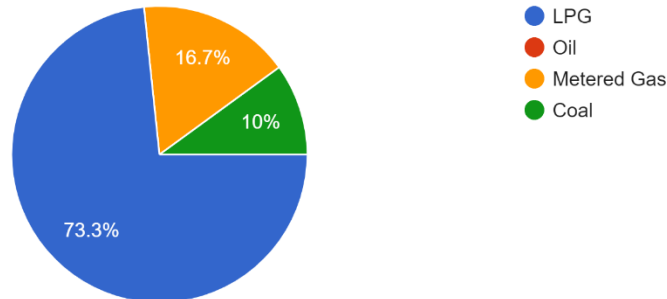
Analysis

The results represent that 80% people says that in their perspective LPG is better than the Oil, Coal and Metered gas. Because the use of LPG is much easier, cost effective and environment safely than the other options.

Findings of Question 10

10. Which one is less time consuming?

30 responses



LPG	73.3%
Oil	0%
Metered Gas	16.7%
Coal	10%

Analysis

The survey presents that 73.3% people says that use of LPG is less time consuming than the oil, coal and metered gas. The most time consuming is oil and coal.

3.3 Summery & Conclusion

Liquefied Petroleum Gas (LPG) is one of the most growing sectors in Bangladesh, which is environmentally safe because of less carbon produced. It has a great economic value as it is less expensive than the other energy sources and maintenance cost of LPG vehicles is less.

In this report survey, I have tried to find out the prospective contribution of LPG in the entire energy grid for the sustainable development of Bangladesh. But there have some limitations that I have faced during doing the survey, which are-

- The limitations of time. This is a really short time to do this type of survey.
- The sample size that I have selected not enough for this kind of big survey.

- I have not got any chance to conduct physical survey because of the pandemic situation.
- I have faced limitations to access in primary information.

3.4 Recommendation

Bangladesh should focus on developing markets for liquefied gaseous energy sources such as Liquefied Petroleum Gas. Switching from other fuels to LPG will improve the Bangladeshi people's quality of life. However, in order to get full benefits from using Liquefied Petroleum Gas which is environmentally friendly energy source as renewable fuel so, the relevant markets must be properly established. Furthermore, helpful government policies, improved infrastructure in port areas, increased visibility and most significantly, proper LPG pricing are needed to confirm energy diversification in Bangladesh in order to solve the country's energy crisis. On the other hand, a government-foreign-private alliance should be established to construct an import-based Liquefied Petroleum Gas storage and bottling facility in Bangladesh. Furthermore, regional collaboration can also be used to share the technical advantages of LPG. Moreover, considering with environmental and social goals. Government should conduct strategic resource planning for the energy sector at a high level, environmental and social goals.

Reference:

- **Khan, N. A. (2016). Training and development of Bengal Group of industries.**
- **DATA BD.CO. (2019). Profile: LP Gas Industry.**
- **Sujana, S. I. (2019). Analysis of SCM of Omera Petroleum Limited: the future leader of LPG industry.**
- **Moazzem, K. G. (2019). The power and energy sector of Bangladesh: Challenges of moving beyond the transition stage.**
- **Shah, M. S., Hossain, M. S., Nipa, F. Y., Pal, K., Islam, M. R., & Sany, S. S. (2018). Future Prospect Analysis of Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG) in Bangladesh: Economic and Technological Case Studies. *Journal of Nature Science and Sustainable Technology*, 12(3), 161-173.**
- **Jalal, E. M. J. (2019). SUSTAINABILITY OF LPG INDUSTRY IN BANGLADESH.**
- **3MCO. (2021). PROFILE: SAUDI ARAMCO LPG PRICES PER METRIC TONNE (MT).**
- **Tallyfy. (2020). SWOT Analysis.**
- **Bengalgroup.com. (2021). Welcome to Bengal Group of Industries-Contact Us Form.**
- **auto-gas.net. (2021). LPG consumption expected to boost in Bangladesh.**

- **Bcmcl.org.bd. (2021). Barapukuria Coal Mining Company Limited.**
- **Rahman, M. A. (2018). Fresh bid for hike in fuel prices.**
- **Ahsan, M. (2017). Bangladesh to pay higher prices for solar power.**
- **Slideshare.net. (2021). Liquefied petroleum gas.**
- **Amin, S. M., Rahman, S. (2019). LNG and LPG Market Development in Bangladesh: Trends and Contemporary Issues.**
- **BYJU’S. (2020). Calorific Value.**
- **SEGroup. Industries, 2. (2021). Uses of LPG in Different Industries.**
- **Quora.com. (2018). What is the source of Liquefied Petroleum Gas.**
- **Bengal LPG Ltd. (2021). Company profile.**

Appendix A.

Survey form link: <https://forms.gle/jM7QLwf3vB2s6Qws5>

Survey questions:

1. Gender

- Male
- Female

2. Age

- 15-18
- 18-25
- 25-30
- 30-40
- 40+

3. Area of residence

- Dhaka
- Mymensingh
- Rajshahi
- Rangpur
- Sylhet
- Khulna
- Barishal
- Chittagong

4. What type of gas connection do you have at your residence?

- LPG Cylinder
- Metered Gas
- Both

5. How often do use LPG?

- Regular
- At rare scenario
- When needed

6. Do you measure any safety while using LPG?

- Yes
- No

7. Uses of LPG is environment friendly than the oil and coal.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

8. Is the use of LPG cost effective?

- Yes
- No

9. According to your prospective which one is better?

- LPG
- Oil
- Coal
- Metered gas

10. Which one is less time consuming?

- LPG
- Oil
- Metered Gas
- Coal