

A COMPREHENSIVE ANALYSIS ON LPG SUPPLY, DISTRIBUTION AND PRICING IN BANGLADESH



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Internship/Project Report Approval Form

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INTERNSHIP/PROJECT INFORMATION

Internship

Organization: _____ TMSS LPG Limited _____

Internship /Project Report Topic: _____ A comprehensive analysis on LPG Supply, Distribution, and Pricing in Bangladesh. _____

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SUPERVISOR APPROVAL

(Tick One)

☐ Approved ☐ Not Approved ☐ Partial Re-write ☐ Full Re-write

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PART- A

Chapter One: Internship Preparation

1.1 Motivation and What I Expect to Learn from this Internship

I completed my Bachelors in Business Administration taking Finance as my major from University of Liberal Arts Bangladesh; however, due to time restrictions I couldn't secure a position as Finance Intern. Currently, I'm doing the internship program of TMSS LPG LTD as a marketing intern and gathering experience by working under the Head of Brands of BCL Group. I was drawn to the prospect of joining an organization and to get the best outcome from it. It is an organization that launched recently and got acknowledgement for its excellence and commitment in the industry. They provided me with an invaluable opportunity to further develop my skills, learn from industry experts throughout the internship journey as a professional.

1.2 Internship Search Process

In today's job market the competitiveness is extremely high in Bangladesh. However, it can be a rewarding process if one is willing to learn through the job-hunting process and apply correctly. My goal was to locate a company where there is a lot to learn and gain in-hand experience by working with the industry experts closely, and learning modern business practices from them. I have applied on many companies with similar perspective, and have given a couple of interviews as well, but the distance and work environment of those companies was not suitable at first glance according to my preference. Throughout the meticulous application journey, I stumbled up on a Marketing Internship position at TMSS LPG LTD of BCL Group, and immediately filled up the necessary forms and sent them my CV and Cover letter.

1.3 Internship Interview Experience

A week after applying I got called for an Interview at their office located at Gulshan-2 Circle, I noticed the uplifting environment immediately within the office, which helped me calm my nerves. The interview was thorough and more conversational rather than a typical Q&A session. I liked how they asked questions from the very small details provided in my CV which indicated they cared about each and every candidate. The Head of Brands and Head of Sales and Marketing of TMSS LPG LTD was friendly and gave me an overview of the company and the work by the end

of the interview. This boosted my confidence and hope of achieving the opportunity of joining their team.

1.4 About the Organization



In Bangladesh, LPG sector, TMSS LPG LTD was registered in the Joint Stock Company Ltd Dhaka in 2016 and they started their operation in September 2024. TMSS LPG specializes in the storage, bottling, marketing and distribution of imported LPG for households, industrial, commercial and automotive energy needs. The mother plant is located in Shelabunia, Mongla Upazila, Bagherhat with a storage capacity of 6000 metric tons of LPG inside 3 spherical tanks. Their operation started from Khulna and now they are operating in Dhaka North, Dhaka South, Faridpur, along with Khulna. TMSS LPG is being used as a fuel in commercial, industrial, cold storage factories, transport, household and many more places, making a significant contribution to the National Energy Sector.

Product Offerings:

1. Includes LPG cylinders of 12 kg, 35 kg, 45kg for households and HORECA (Hotel, Restaurant, Cafeteria).
2. Bulk LPG is tailored for commercial and industrial sectors.
3. Serves as automotive fuel in gas stations.
4. Lastly, Reticulated system for buildings is provided.



Figure 1: 12, 35, 45 KG Cylinder



Figure 2: Reticulated System



Figure 3: Autogas



Figure 4: Bulk Delivery

Source: TMSS LPG Facebook Page.

TMSS LPG is a strategic business unit of the BCL Group in Bangladesh. Building Construction Limited is private limited company registered under joint stock company, Dhaka on 1st September 2005. TMSS is one of the major shareholders of the company. T.M. Ali Haider is the Managing Director of BCL Group. BCL started its journey with constructions works, land development, and real estate business. At present, BCL Group has diversify its activities in 15 different sectors with 15 operating companies.

Mission

To provide innovative and environmentally friendly energy solutions that empower communities, protect the environment, and enhance the quality of life for all.

Vision

We envision a future where every household and industry has access to convenient, efficient, and eco-friendly energy, contributing to a healthier and more sustainable world.



Chapter Two: About The Internship

2.1 Activities of the Department

During my internship at TMSS LPG, I was given the chance to work with the marketing department, which basically helped me dive into the creativity level of the entire branding process, how it is done and executed from the beginning to the end with multiple spectrums of responsibilities. The duties included marketing content creation (basic content, special days content, winter contents etc.), research on competitors marketing and promotional strategies, providing insights on visual developments, which allowed me to gain in-depth knowledge and practice my creativity on a corporate level.

2.2 Work Environment

The office of TMSS LPG is at Gulshan-2, Circle, it has a unique blend of architecture and a vibrant, collaborative workspace. Despite the physical surroundings, people in the office environment ooze positive attitude and humor, fostering a culture of mutual support and collaboration. Colleagues in the work environment are very friendly and supportive, they always have a ritual to have lunch together in the conference room and they share food with each other and makes the environment joyful, which I felt very heartwarming.

The groups were not limited to their divisions; instead, there was a sense of multi-functionality, where individuals from different backgrounds and expertise collaborated easily to reach shared goal, brainstorming sessions or problem-solving sessions, by sharing all of their ideas and their unique skills, they helped create a dynamic and inclusive work environment. Communication was informal, facilitated by open house and regular team meeting, daily tussle of the department heads, and end of the work hour wrap up. Additionally, the leadership at TMSS LPG fostered a culture of empowerment and growth, encouraging employees to engage, explore new ideas and continue to improve their skills.

2.3 Duties and Responsibilities as an Intern

During my internship at TMSS LPG, my duties included responsibilities within the marketing department. That includes:

- **Content Creation:** The making of marketing materials that we use to promote our products and increase brand visibility, including editorials, visuals, social media posts and copy. Pitha recipes, Ramadan healthy recipes, Story crafting, Awareness contents were also part of the creation.
- **Research on competitors marketing and promotional strategies:** Collection of 1 year data, to find their patterns, theme, story, frequency of post, segmentation of post and finding common grounds.
- **Providing insights on visual developments:** Proper checking of visuals for mistakes or any re-correction and insight on making it more lucrative. Yearly calendar visual ideas, date checking was also part of it.
- **Yearly Content Drafting:** Creating content ideas and frequency of post including special days, national days, religious events, and Normal days.
- **Collaboration:** We work with small team to develop marketing campaigns, strategies, designs, and align business objectives with customer needs and preferences.

These jobs allowed for valuable hands-on experience in different aspects of business marketing.

2.4 Application of Educational Learning with Internship

Working at TMSS LPG, I was able to apply the theoretical skills I gained from the Bachelor of Business Administration in Bangladesh at the University of Liberal Arts to real situations. For example, my coursework in marketing provided the foundation for creating interesting content and promotions along with customer preferences, and it gave me the skills needed to better communicate and manage relationships. Additionally, my experiences in research and data processing were invaluable in conducting market research and developing marketing promotional plans. Overall, my internship served as a bridge between academic learning and practical application, enhancing my understanding of key concepts and providing tangible knowledge on the field of study.

Chapter Three: Self-Reflection

3.1 Feedback on Internship

I am grateful for the valuable lessons I learned and the growth I made throughout my internship journey at TMSS LPG. One of the most rewarding aspects was the opportunity to learn from the best in a real-world setting, gaining hands-on experience in various aspects of business marketing and ways to interact with target audience. As I was a student from finance background, it was hard for me to cope in a different field where I have little to no knowledge. However, my office mentor supported me to the fullest in every possible way, he made sure I get proper marketing knowledge that I require to do my work. In the first month, my mentor took 2 hours session each day for me on marketing aspects with real-life examples, how to define each term, how each term works in real-life, how to utilize these in a business environment. I interacted with everyone in the office and learned what they do and how they do, they took a brief session on the overall business operation starting from shipment to end-consumers. The sessions were quite helpful for me to understand their business process and how LPG industry operates despite having competition. I worked under the supervision of the Head of Brands, BCL Group, learning content crafting, story building, lucrative visual presenting, devil's judgement, content execution, thorough checking before executing etc. One of the main challenge was settling myself in between professionals and meeting their expectations, as a new comer with zero marketing knowledge I have evolved through this organization, who taught me the gist of marketing.

Despite these challenges, I believe they were important in my personal and professional development. Overcoming obstacles strengthened my problem-solving skills and taught me the importance of resilience and adaptability in the face of adversity. In addition, the constructive feedback I received from mentors and colleagues allowed me to identify areas for improvement and implement strategies for continuous learning and development.

3.2 How could I do better and the Organization could utilize me better

To enhance my performance and better contribute to the organization, I aim to continually request feedback from mentors and colleagues to identify areas for improvement and implement constructive suggestions. Participating in ongoing learning and professional development opportunities will enable me to broaden my skill set while remaining current on industry trends and best practices. Improving my time management skills will allow me to balance multiple

responsibilities and meet deadlines more efficiently, while open and proactive communication with team members will ensure alignment on goals, priorities, and regular updates. To better utilize me, the organization could provide clear guidance on roles, responsibilities, and expectations, ensuring alignment and maximizing productivity. Offering training programs and resources to improve skills and competencies related to my role and career goals would help me advance within the organization. Recognizing and rewarding achievements and contributions, as well as providing opportunities for growth and advancement within the organization, would also help me to fully realize my potential.

3.3 Recommendation

By adopting these processes, the organization can create a dynamic and exciting workplace that encourages employees to thrive, innovate, and contribute to excellence.

3.3.1 Encourage Cross-Functional Exposure

Encourage employees to explore different roles in different sectors and expand their skills beyond their designated responsibilities. Encourage an innovative culture by allowing employees to take on assignments or participate in cross-functional projects to gain new experiences and perspectives.

3.3.2 Healthcare plans

Introduce multifaceted healthcare programs that address the physical, mental, and emotional well-being of employees such as cognitive challenges, fitness challenges, or virtual fitness education. Provide resources and assistance to employees in prioritizing self-care and work-life balance, such as time off, mental health days, or subsidized memberships.

Chapter Four: Personal Development Plan

4.1 Technical Skills

To improve my technical skills, I aim to do some courses on the following:

4.1.1 Data Analysis and Interpretation: Take training sessions or courses in data analysis and interpretation to improve my capacity in data structure analysis and interpretation.

4.1.2 SAP/ERP Software Training: Take some ERP software training course and learn how to create Sales Order/Purchase Order using tools like SAP.

4.1.3 Quickbook/Xero Course: Take some finance/accounting relevant software course, to better understand how it operates.

4.2 Interpersonal Skills

Effective Communication: Communication is the primary need in any professional environment my goal is to develop my social communication skills. In marketing communication is the key to success, crafting stories, and narrating it as a story is a vital part. Moreover, it would help me to communicate properly with my seniors and colleagues. In professional environment giving presentation is a must, so by practicing social communication I can also improve my presentation skills.

Adaptability & Flexibility: As industries evolve rapidly, adaptability is a cornerstone skill. My goal is to embrace change by actively seeking opportunities to diversify my skill set and take on new challenges. Whether it's volunteering for interdisciplinary projects, or adapting quickly to changing priorities, I understand the importance of having an agile and open mind in the face of change. By actively adapting to emerging trends and technologies, I can contribute to a dynamic and forward-thinking work environment.

Leadership: I want to develop my leadership skills through the opportunity to lead by example and take the lead in my team or department. Whether it's leading work teams, mentoring junior colleagues, or supporting initiatives to create positive change, I'm committed to making informed decisions, delegating effectively, and fostering a culture of accountability and continuous improvement so encouraged. By demonstrating integrity, empathy, and a growth mindset, I aim to create a collaborative and efficient business where everyone can succeed.

PART- B

Executive Summary

This research aims to conduct a comprehensive analysis of the Liquefied Petroleum Gas (LPG) industry in Bangladesh, by assessing its supply chain, distribution channel and pricing mechanisms. Since 2008, the industry has experienced a rapid growth foremostly because the government stop providing new piped natural gas connection to household and industry. This transition established LPG as a cleaner and more accessible alternative fuel. In 2009, the annual consumption of LPG was 47,000 tons with 2.5 lac consumers, which has surged to 10 lac tons with 38 lac consumers in 2019. The market size of the LPG industry in Bangladesh is \$3.2 billion; however, more than 98% are dependent on imports from countries like Qatar, Kuwait, Iran, Russia, and Singapore. Major market players are Bashundhara and Omera who leads the market through imports, distribution, and bottling. There are only two major ports Chittagong and Mongla for LPG import, later these are stored, bottle, and transported to end consumers. There are a large network channel of distributors and retailers, to reach customers across diverse geographical regions. Various methos of transportations are used based on product type. The LPG industry pricing is heavily regulated by the Bangladesh Energy Regulatory Commission (BERC). The maximum retail price (MRP) for per kg LPG, cylinders, per liter price for Autogas and other charges are set by BERC on the first working day of every month. Several factors are considered during LPG price determination, including Saudi Contract Price, vessel freight and traders premium charge, stocking and bottling charges, VAT, distributor's charge and retailer's charge. Companies must comply with BERC's pricing policy; however, there are some other costs of company which they sum up to get Exfactory/Gate price.

Chapter One: Introduction

1.1 Research Title

A comprehensive analysis on LPG Supply, Distribution, and Pricing in Bangladesh.

1.2 Research Objective

- i. To analyze the supply chain dynamics and distribution model of LPG in Bangladesh, focusing on importation, storage, bottling, transportation, and the role of intermediaries in delivering LPG to end-users across different regions.
- ii. To critically identify the regulatory policies that affect LPG pricing in Bangladesh and LPG operators pricing structure in compliance with BERC.

1.3 Background of the Research

Liquefied Petroleum Gas (LPG) is a form of petroleum gas in a liquid state, with the mixture of Propane (C_3H_8) and Butane (C_4H_{10}). Another chemical is used in LPG for odor that is Methyl Mercaptan (CH_3SH) for detecting even minor leaks, as LPG is odorless and colorless any leaks would be undetectable that is why this odor is used as a safety precaution. The LPG industry in Bangladesh has emerged as one of the growing energy sectors in the country. In past, Bangladesh was heavily relied on natural gas for household and industrial energy needs; however, the depletion of natural gas reserves and government policies encouraged the transition to LPG as a clean, efficient, and accessible alternative fuel. The growth of LPG industry started in 2008, when the government stop providing new connections of natural gas to households and various industries, state owned and many private companies began importing LPG to meet the growing gas demand. In 2009, the annual consumption of LPG was 47,000 tons with 2.5 lac consumers, which has surged to 10 lac tons with 38 lac consumers in 2019. The market size of the LPG industry in Bangladesh is \$3.2 billion; however, more than 98% are dependent on imports (Hossan, 2023).

The growth of LPG industry is driven by multiple factors, e.g. rapid urbanization, increasing household incomes, and strong government policies for reducing dependance on piped natural gas for cooking and substituting it with LPG. The LPG industry in Bangladesh is mostly driven by private companies, with 58 licensed companies in the market; however, at present a total of 28 companies are operating in the market including one state owned company. Major market players are Bashundhara and Omera who leads the market through imports, distribution, and bottling. This significant volume of LPG is mostly imported from Middle Eastern countries e.g. Qatar, Kuwait, Iran; additionally, other includes Russia and Singapore, delivered through major ports such as Chattogram and Mongla. LPG is served to a diverse user segment including households, HORECA (hotel, restaurant, & cafeteria), industries, and also in the automotive sector where LPG replaces other fuels like compressed natural gas (CNG).

In spite of the immense growth and potential, the LPG industry of Bangladesh faces multiple challenges e.g. supply chain inefficiencies, fluctuating LPG prices, infrastructure limitation and

safety issues associated with cylinder management and consumer awareness. For a sustainable market growth addressing this issue is essential, for ensuring consumer safety and meeting the increasing energy demands in an environmentally friendly manner.

Through the following analysis, we seek to explore the LPG industry's supply, distribution, and pricing frameworks in Bangladesh. It shall examine the major issues such as import sources, import dependency, bottling and storage capabilities, logistical problems, safety issues, government policies and pricing mechanisms in detail. The following study focuses on finding the existing gaps in the market and offer recommendations to support a sustainable and resilient LPG market.

1.4 Research Questions

- i. Explain the supply chain dynamics and distribution model of LPG in Bangladesh, focusing on importation, storage, bottling, transportation, and the role of intermediaries in delivering LPG to end-users across different regions.
- ii. Identify the regulatory policies that affect LPG pricing in Bangladesh and LPG operators pricing structure in compliance with BERC.

Chapter Two: Methodology

2.1 Type of Research

This research employed a approach, which aligns with the Descriptive research design. This approach will offer flexible examination on how supply system operates, how LPG distribution works, and the current pricing scenario of the LPG industry.

2.2 Research Design

This research is purely observational or data-collection based. Reviewing existing data records, industry reports, public documents, sales record and other secondary documents.

2.3 Data Sources

To analyze this research paper, information was gathered from different sources. The following sources are mentioned:

- **Secondary Data:** Secondary data sources include:
 - **Company Documents:** Sales report, product catalogs, and marketing campaign materials.
 - **Official Websites and E-commerce Platforms:** Websites and Facebook pages of LPG companies.
 - **Industry Reports:** Reports from BERC.
 - **Newspapers:** Business Inspection, The Financial Express, The Business News, The Daily Star, Dhaka Tribune, and Industry Insiders.
 - **Public Databases and Academic Research:** Global and local LPG market research papers.

2.4 Data Collection Method

Data were collected through internal company documents, personal observations on supply, distribution and pricing discussions. Reviewed BERC reports, other industry reports. No structured sampling methods were used.

2.4.1 Data Analysis

Through content analysis the following collected data were analyzed, it involved supply structure, distribution and pricing mechanisms across LPG companies.

Chapter Three: Findings and Discussion

3.1 Supply:

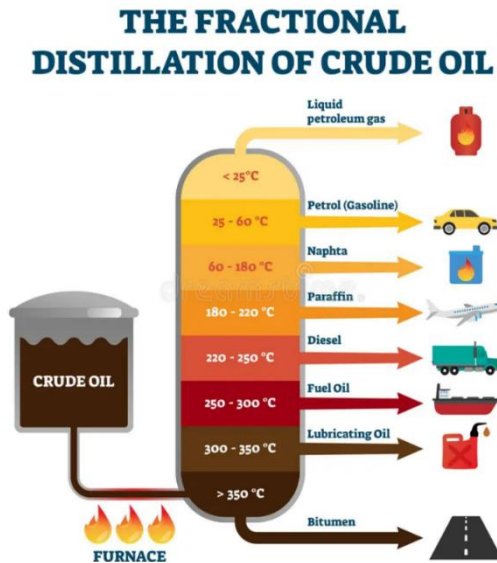


Figure 1: Crude Oil Refining Process (Source: Google)

3.1.1 LPG Production Process

Crude Oil is refined and the by-products are obtained from it: Petrol, Octane, Bitumen, Kerosene, Tar, Butane, Propane etc. These Butane and Propane is mixed to a ratio like 70:30 to make LPG for Bangladesh; however, this ratio is not same for everywhere it depends on temperature.

3.1.2 LPG Import Countries

Bangladesh heavily relies on LPG import, more than 98% of the industry is dependent on imports. Mostly Bangladesh imports LPG from Middle Eastern countries e.g. UAE, Kuwait, Iraq, Iran etc. and Singapore. There are two types of import methods: Upstream involves exploration and production,

midstream involves transportation and storage & Downstream involves refining and distribution. However, this process can involve a range of supply chain channel.

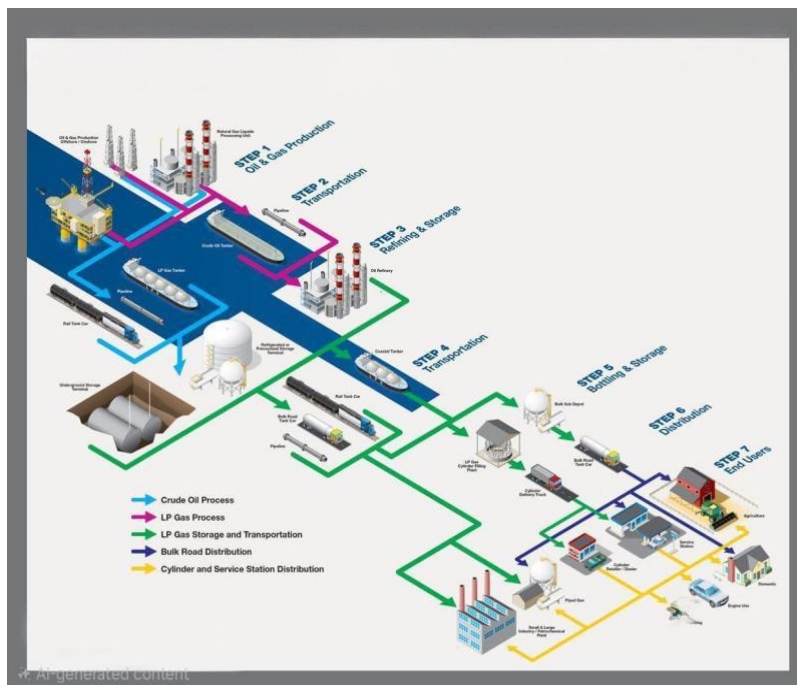


Figure 2: LPG Supply Chain Process (Source: Google)

The LPG supply hub of Bangladesh is Mongla and Chittagong port. In total there are 28 LPG operator companies. Among them in Mongla port, there are 13 companies mother plant terminal. Additionally, in Chittagong port there are 7 companies mother plant terminal. Mother plant refers to at least 5000 metric ton storage capacity for any operating company and another is Satellite plant which is way smaller like 300,400, or 500 metric tons. Most of the satellite plant is situated near Bogura and Dhaka division e.g. Sitalokkha river,

Rupganj, Gozaria, Keraniganj Meghna Ghat etc.

3.1.3 Districts With No Access to Natural Gas:

Barishal Division (6)	Khulna Division (10)	Dhaka Division (5)
Barguna	Bagerhat	Faridpur
Barishal	Chuadanga	Gopalganj
Bhola	Jessore	Madaripur
Jhalokati	Jhenaidah	Rajbari
Patuakhali	Khulna	Shariatpur
Pirojpur	Kushtia	
	Magura	
	Meherpur	
	Narail	
	Satkhira	

Table 1: Districts with no Natural Gas

(Source: Authors Own Creation)

3.1.4 Factors that Influence LPG Supply and Demand in Bangladesh

3.1.4.1 Seasonal Impact:

3.1.4.1.1 Winter Season: In winter, temperatures drop, mostly in the northern parts of Bangladesh. That leads to the increased demand for LPG, not only for cooking but also for water heating and space heating, in some places. Additionally, in winter, the need for cooking increases as people make different types of “Shithir Pitha” for

family gathering, and social events like fair. These causes a surge in the LPG demand in both rural and urban areas.

3.1.4.1.2 Rainy Season: During heavy rainfall or flood gathering traditional fuels like wood becomes difficult. Consequently, many households in flood-prone areas turn to LPG as an alternative. Waterlogging due to heavy flooding, damages transportation routes, making it difficult to access any other forms of fuel; additionally, firewood becomes wet which can’t be used for cooking, so LPG becomes the reliable alternative source.

3.1.4.1.3 Dry Season for LPG (Feb,Mar,Apr): As firewood are available during this season; therefore, the need for an alternative fuel decrease. In this season agriculture activities elevate and these activities doesn’t require an increase in heating. During this season, many rural household starts using traditional fuels like wood and crop residues as this are cheaper during this season. That’s why there is seen a modest decline for LPG as an alternative.

3.1.4.1.4 Festive Season: Festivals like Ramadan, Eid-UI-Fitr, Eid-UI-Adha, and Puja are key drivers of LPG demand: During festive season, cooking activities rise because people prepare varieties of meals e.g. meat dishes, sweets, and traditional foods for family gatherings and social celebrations. These causes a surge in the LPG demand in both rural and urban areas. During festive season, restaurants, catering services, and street food vendors experience a boost in their business, that causes a surge in the LPG demand in both rural and urban areas. During festive season, people travel more for family visits and religious activities which increases the demand for Autogas (LPG), which contributes to the higher demand for LPG.

- 3.1.4.2 Supply Interruptions of Natural Gas:** As Bangladesh heavily relies on natural gas; however, when the supply of natural gas is interrupted the demand for LPG increases as an alternative:
- 3.1.4.2.1 Schedule or Unscheduled Interruptions:** Well-planned repairs, upgrades, maintenance of natural gas infrastructure can cause temporary interruptions in the supply of piped natural gas. Unpredictable issues like pressure drop, pipeline disrupt, and sudden maintenance can also affect the supply of natural gas. When the demand rises, LPG serves as an alternative.
 - 3.1.4.2.2 Rohingya Refugee Camps:** The demand for LPG increased unexpectedly during and after Rohingya refugee crisis:
 - 3.1.4.2.3 Increased Demand from Camps:** Since 2017, the refugee camps the refugee camps have become major consumer of LPG. Humanitarian agencies like UNHCR and WFP, has provided refugees with LPG to reduce reliance on woods for cooking, as it leads to deforestation and environmental degradation.
- 3.1.4.3 Supply Interruptions of LNG:** Reliance on LNG imports has increased now-a-days, LNG is taken to Matarbari where they put LNG supply in the National Grid and sudden interruption in its supply can influence the demand for LPG:
- 3.1.4.3.1 LNG Market Volatility:** Supply chain disruptions, domestic import challenges, global energy price change, and geopolitical tension can interrupt the supply and availability of LNG, due to which the availability of natural gas declines. Consumers and industries that relies on natural gas turns to LPG, which increase the overall national demand for LPG.
- 3.1.4.4 Sudden Events:** Unexpected events can also impact the demand for LPG to rise. For example:
- 3.1.4.4.1 Illegal Gas Line Cut:** In August 19th, 2025 Titas gas conducted an expedition for illegal gas connection in Dhaka, Gazipur, Narayanganj. Many households and industries lost natural gas connections and they had to immediately switch to LPG for meeting their needs which resulted in the sudden surge for LPG.

3.1.5 National LPG Demand Scenario:



Regions:	Demand of 12Kg Cylinders (pcs- Monthly)
Dhaka	35 Lac
Chittagong	20 Lac
Khulna	8/10 Lac
Barishal	6 Lac
Mymensingh	3 Lac
Sylhet	7 Lac
Rajshahi	6 Lac
Rangpur	5 Lac
Total amount of 12kg Cylinder demand =	90 Lac

Table 2: National LPG Demand (Authors Own Creation)

Figure 3: Bangladesh Map (Source: Google)

Annual Demand of 12kg pack size cylinder both low/high end is 11,00,000/14,40,000 metric ton.

3.2 Distribution:

Distributor Storage with Last Mile Delivery

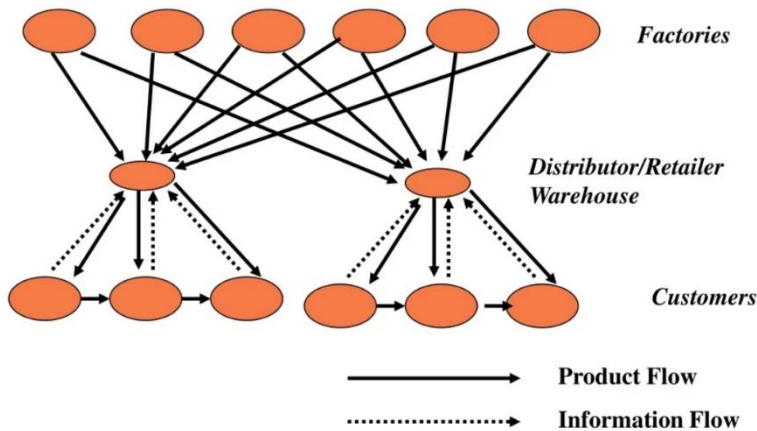


Figure 4: Distributor Storage with Last Mile Delivery (Source: Google)

Distributor Storage with Last Mile Delivery is a supply chain strategy where the products are stored in local distribution point and then delivered directly to customer's home by the distributor's own transport system, rather than any third-party package deliverer like retailers or sub-dealers.

To cover our national demand of LPG cylinders a company needs 300-500 number of distributors approximately all over Bangladesh. For example, in a region like Chittagong, where there are various zilas and

upazilas to cover LPG demand; however, depending on company/market injected cylinders and need of that region they appoint distributors e.g. 2,4,6 or more number of distributors are appointed regionally.

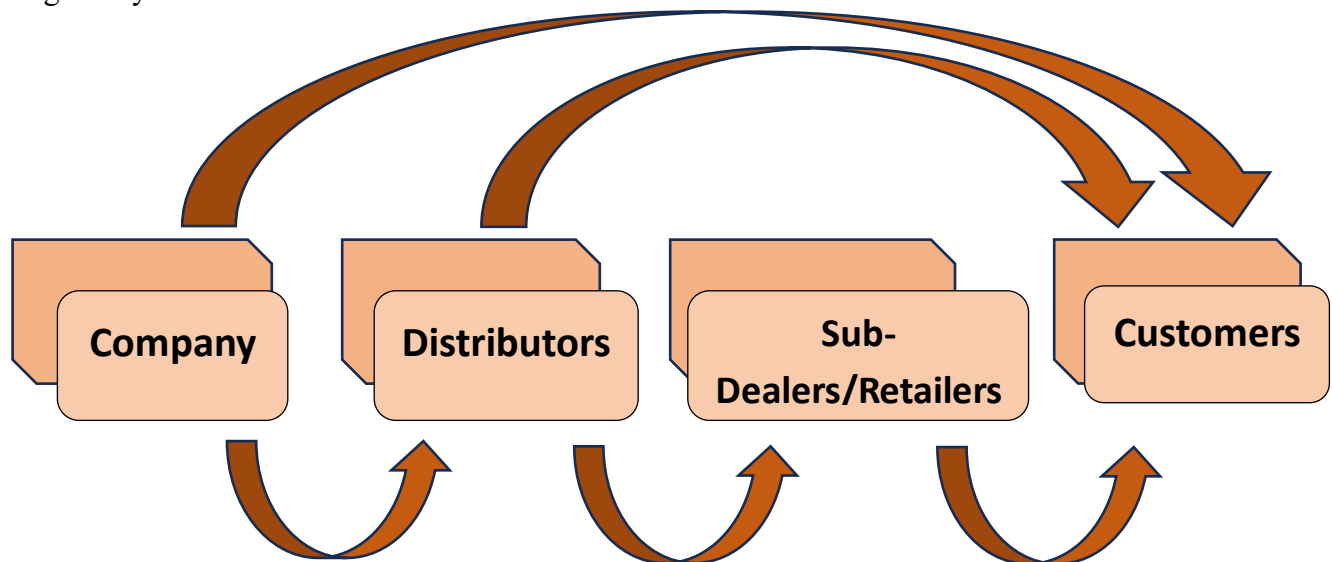


Figure 5: Distribution types till End-Users (Source: Authors Own Creation)

3.2.1 Distribution Hub

From where the LPG is stored and distributors collect refill/package cylinders from there.

3.2.1.1 Mother Plant: LPG is imported directly to the mother terminal where they do storage, bottling, and distribution for household, industrial/commercial, and automotive energy needs.



*Figure 6: Mother Plant of Omera in Mongla
(Source: Omera FB Page)*



*Figure 6.1: Mother Plant of TMSS LPG in
Mongla (Source: TMSS LPG Website)*

3.2.1.2 Satellite Plant: It is a smaller, regional facility used for storage, bottling, and local distribution of LPG, which is transported here in bulk from import terminal or mother plant. Three types of installation can be done for satellite plant: aboveground, underground, and mounded. Various shapes and sizes are given to it according to factors like area size, safety distance between tanks, storage and bottling distance, and transportation safety distance according to BERC rules.



*Figure 7: Satellite Plant of Omera LPG in
Ghorashal (Source: Google Map)*



*Figure 7.1: Satellite Plant of BM Energy BD in
Bogura (Source: Google Map)*

3.2.1.3 Regional Distribution Center (RDC): It is a large warehouse located in a specific geographical region to store and distribute cylinders to local stores, businesses, and customers. Many companies have their RDC's located in Sylhet, Cumilla/Noakhali, Barishal, Faridpur, North Bengal etc.



Figure 8: RDC of Petromax (Source: Google)



Figure 8.1: RDC of Fresh (Source: Google)

3.2.2 Transportation

Distributors can take product from any of the distribution hub that is nearer to them. Distributors takes 500-600 pcs of cylinders at once using truck to reduce transportation cost. Later, distributors distribute cylinders among sub-dealers/retailers using pickup van that holds 60-100 pcs of cylinders at once. Some companies also provide direct delivery in regional areas e.g. in Khulna Petromax and Fresh provides direct delivery to both retailers and customers. However, direct delivery may possess some issues like they will have to take the different brand empty cylinders and then deal with distributors in that region to exchange it and take their own cylinders. BERC sets up the whole pricing scenario (MRP for cylinders, per liter/kg per unit price for reticulation, and Autogas per liter) along with distributors charge, retailers charge, and company profit. However, intermediary parties like distributors and retailers are price sensitive they mostly consider two factors: market injected/market available cylinders and price.

Category:	Delivery Transportation to End-Users:
12kg Cylinders	Cycle, Bike, Auto/three-wheeler
35kg & 45kg Cylinders	Pickup-Van
Bulk Quantity/Autogas	Bobtail (10-11 metric ton), Road tanker (17-18 metric ton)

Reticulation (Cylinder bank)	Pickup-Van (Bunch of cylinders together known as cylinder bank)
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Table 3: Modes of Transportation (Source: Authors Own Creation)

There are certain rules and regulations associated with distribution e.g. trade license, explosives license, fire service & civil defense license, BERC license to operate, VAT registration certificate, TIN certificate, site-specific approvals etc. Additionally, for taking more cylinders in a truck by stacking them usually requires permission from BRTA for fencing truck.

3.3 Pricing:

3.3.1 Pricing Policy (BERC)

BERC plays a very important role in the LPG pricing structure of Bangladesh. They determine the price based on various factors; however, Saudi Aramco first declares the price of propane, butane, at the last working day of each month e.g. price for November is declared on October 30 by Saudi Aramco. Later, after considering all other important charges and factors BERC declares the whole pricing and a blending 35:65 ratio of propane and butane in the first working day of the month e.g. November 2. The following process is how BERC publishes the price of LPG per kg based on certain important factors:

Serial No:	Description:	Regulated (Taka/Kg)(November)	Price
A			
1	Saudi Contract Price (Saudi CP)	56.92	
2	Vessel Freight and Traders' Premium Charge	13.21	
3	Other Charges	0.68	
4	Import Parity Price (1+2+3)	70.81	
B	LPG Stocking and Bottling Charge	16.00	
C	LPG Stocking and Bottling Cost, Pre-VAT (4+B)	86.81	
D	VAT	6.51	
E	LPG Stocking and Bottling Cost, Post-VAT (C+D)	93.32	
F	Distributor's Charge (Transportation Cost from Distributor to Retailer)	4.17	
G	Retailer's Charge	3.75	
H	Regulated Price of LPG for Consumers at Retailer's Outlet (E+F+G)	101.28	

Table 4: BERC: Regulated price of LPG for Consumers at Retailer's Outlet Per Kg for Nov, 25

(Source: BERC Report)

- 3.3.1.1 Saudi Contract Price (Saudi CP) (1):** Saudi Aramco declared the Saudi CP of November 2025, for Propane and Butane is \$475USD per metric ton and \$460USD per metric ton; additionally, a blending ratio of Propane:Butane as 35:65 is \$465.25USD per metric ton. Considering the exchange rate to be BDT 122.35/- per US Dollar, and 1 metric ton = 1000 kg.
- 3.3.1.2 Vessel Freight and Trader's Premium Charge (2):** Is \$108USD per metric ton.
- 3.3.1.3 Other Charges (3):** It includes landing charge, levy charge, river dues, customs survey and port charge, which is BDT 300 per metric ton. LC Charge, insurance charge (with VAT), C&F Commission (with VAT), and disport inspection charge are 0.54% of the total CFR value, which is BDT 379 considering the exchange rate of BDT 122.35/- per USD.

Pack Size (Mostly Used One)	Calculation (For Nov 2025)	MRP (For Nov 2025)
12 kg	101.24*12	BDT 1215
35 kg	101.24*35	BDT 3543
45 kg	101.24*45	BDT 4556

Table 5: Maximum Retail Price 12,35,45 Kg for Nov, 25 (Source: Authors Own Creation)

3.3.2 Company Pricing Mechanism in Compliance with BERC (Cylinder)

For November 2025, BERC gave the pricing with company profit after tax which is BDT 1120. According to BERC, this is the rate in which distributors will get a 12kg LPG. However, there are other factors that a company needs to consider like commission, transport subsidy, electricity bill, manpower salary, cost of capital, investments, loan repayments etc. The company rate is also known as Exfactory/Gate price e.g. BDT 1193 among which there are transport subsidy for distributors; however, transport subsidy depends on the distance of mother plant/satellite plant/regional distribution center and the distributors distribution hub e.g. Mongla to Bagherhat transport subsidy is Tk 20 per cylinder and from Mongla to Dhaka it is Tk 60 per cylinder. General commission for distributors varies from company to company e.g. can be any range from Tk 40-70 per cylinder. Some other commissions are also included which also varies from company to company and the range could be same as general commission. The following could be an example of how a company does their pricing in compliance with BERC:

Serial No.	Category (12 KG)	Price (BDT)
1	BERC (LPG Stocking and Bottling Cost, Post-VAT)	1120
2	Exfactory/Gate price	1193
3	Transport subsidy (Dhaka)	60
4	General commission	50
5	Other commissions	50
6	Total (3+4+5)	160
7	Sales order price for distributor (2-6)	1033
8	BERC (LPG Stocking and Bottling Charge)	192
9	BERC to Distributors rate difference (1-7)	87
10	BERC to Exfactory rate difference (2-1)	73
11	Total (8-9+10) (Company- LPG Stocking and Bottling Charge)	178
12	BERC (12kg price in retailers point)	1215
13	BERC (retailers charge)	45
14	Dropping price (distributor to retailer selling price) (12-13)	1170 (it varies market to market)

Table 6: An example of Company Pricing Structure for 12 kg LPG (Source: Authors Own Creation)

3.3.3 Bulk LPG

There are three types of bulk LPG sales, they are given below:

3.3.3.1 Autogas:

Serial No:	Description:	Regulated Price (Taka/Liter)
A		
1	Saudi Contract Price (Saudi CP)	31.62
2	Vessel Freight and Traders' Premium Charge	7.34
3	Other Charges	0.38
4	Import Parity Price (1+2+3)	39.34
B	LPG Stocking Charge	3.34
C	LPG Stocking Cost, Pre-VAT (4+B)	42.68
D	VAT	3.20
E	LPG Stocking Cost, Post-VAT (C+D)	45.88
F	Transportation Charge	1.70
G	Station Charge	8.00
H	Regulated Price of Autogas for Consumers (E+F+G)	55.58

Table 7: BERC: Regulated Price of Autogas for Consumers Per Liter for Nov, 25 (Source: BERC Report)

For LPG 1 kg = 1.8002 liter. So, 12 kg of LPG = $12 \times 1.8002 = 21.60$ liter. Saudi CP for 12 kg LPG is BDT 683.20 so to find out the Saudi CP for Autogas per liter we need to divide $683.20/21.60 =$ BDT 31.62. Usually, company sells LPG in metric tons/kg, price for per liter is given for the consumers that takes LPG from Autogas stations. Company sells e.g. 10-18 metric tons of LPG which is transported through bobtail (9-10MT) or road tanker (17-18MT) to the station storages.

3.3.3.2 Operator to Operator:

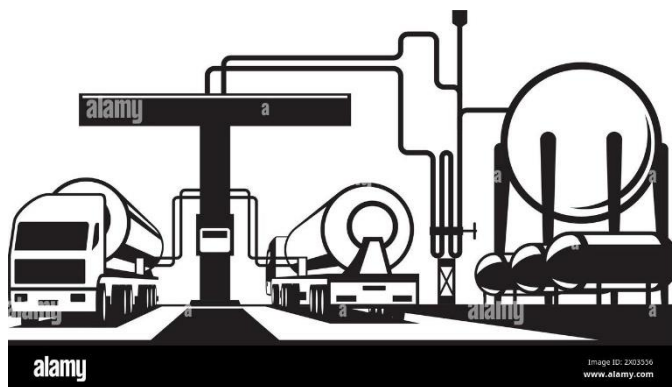


Figure 13: Loading/Unloading Bay from Road Tanker to Plant (Source: Google)

Company to company LPG sale is also done in metric ton so the pricing structure per MT may range from 70 to 75 thousand which varies from company to company. There is 0% VAT required in operator to operator sell. Loading/unloading bay of LPG is a highly specialized and regulated terminal where bulk LPG is both loaded and unloaded safely and transferred between storage facilities and road tankers.

3.3.3.3 Operator to Factory:

Company pricing structure is similar to operator to operator sell; however, the price range is little higher, VAT and AIT (Advance Income Tax) is also included in it. For example, if the operator price per metric ton is BDT 75,000, $75,000 \times 3\%$ (AIT) = BDT 2,250, $75,000 \times 7.5\%$ (VAT) = BDT 5,625 and transport subsidy is also provided e.g. BDT 3,000. So, in total = BDT $(75,000 + 2,250 + 5,625 + 3,000)$ = BDT 85,875, this is the price in which factory buys LPG from companies, prices may vary however the factors are constant.

Chapter Four: Recommendation

For Bangladesh's LPG industry to grow further, in the future firstly, they should develop their transportation infrastructure. Currently, the operating companies should develop their own supply and distribution infrastructure to ensure the supply of LPG across various geographical region, they can build Regional Distribution Center (RDC) to maintain regional supply and distribution infrastructure and transport subsidy will lower. Moreover, helpful government policies for proper LPG pricing considering the cost factors of LPG companies and improved infrastructure in port areas to solve the countries energy crisis. LPG companies should launch their own retail shop, it will reduce cost as there is no distributors subsidy or commissions involved, companies can directly sell to consumers at a better price. Since 2020, refined LPG cylinders in Bangladesh are exported to Tripura, India, Omera and Beximco LPG are exporting 1000 tons of LPG every month. By developing proper infrastructure in Bangladesh by considering all International Safety standards it will be possible to directly export bottled LPG to India and Nepal as well.

Chapter Five: Conclusion

LPG industry of Bangladesh has shifted from a niche fuel source to serving the national fuel need. Since 2008, the industry has experienced a rapid growth foremostly because the government stop providing new piped natural gas connection to household and industry. This transition established LPG as a cleaner and more accessible alternative fuel. Millions of households and industries are now dependent on it as a cleaner alternative fuel, leading to massive market growth.

The objective of this research was to analyze the supply chain dynamics and distribution model of LPG in Bangladesh, focusing on importation, storage, bottling, transportation, and the role of intermediaries in delivering LPG to end-users across different regions. Additionally, to critically identify the regulatory policies that affect LPG pricing in Bangladesh and LPG operators pricing structure in compliance with BERC. The key finding of this research is that it is vulnerable to international market volatility because this industry is heavily relied on imports, 98% of LPG is imported from other countries. In this industry, market dominant players are Bashundhara and Omera. Another key finding is that the whole process involves supply delivery to only two major ports Chittagong or Mongla and then the respective operator companies collect and then the stage of storing and bottling comes, after that these are prepared for distribution either in distributors truck for 12, 35, 45 kg cylinders or for bulk delivery road tanker or bobtail. Managing a massive distributor network across the country is very difficult, to meet the national demand an estimation of 300 to 500 distributors is needed. Lastly, the dual pricing structure challenge between regulatory body and companies creates immense gap.

The LPG industry pricing is heavily regulated by the Bangladesh Energy Regulatory Commission (BERC). The maximum retail price (MRP) for per kg LPG, cylinders, per liter price for Autogas and other charges are set by BERC on the first working day of every month. Several factors are considered during LPG price determination, including Saudi Contract Price, vessel freight and traders premium charge, stocking and bottling charges, VAT, distributor's charge and retailer's charge. Companies must comply with BERC's pricing policy; however, there are some other costs of company which they sum up to get Exfactory/Gate price.

In spite of the findings, there were several constraints during the research, as many things are confidential and not accessible to all e.g. the financial statements and profit margins were not accessible and participants were less for which I couldn't involve any survey. The internship period was also very short to fully understand about an industry, the scope and time was limited.

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TMSS LPG Website: <https://bclgroupbd.com/lpg/>

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Supervisor's Name (Faculty):	Md. Kamal Uddin, PhD
Organization Name:	TMSS LPG Limited
Internship Title:	A comprehensive analysis on LPG Supply, Distribution, and Pricing in Bangladesh

Student's signature & date

Jubira

12.10.25

Supervisor's signature & date

(Submit your Research Proposal to your Supervisor for approval)

Ref: BCL/Admin/TLPG/App./09/2025-800

Date: 08/09/2025

To,
Jubire Hossain Sojan
Father's Name: Jamal Sikder
Village: 17, Block-C, Section-11, AV-5
P.O: Mirpur
P.S: Pollobi
District: Dhaka.

Subject: Appointment Letter.

Dear,

This is to inform you that the management of TMSS LPG Limited has been pleased to appoint you as "Intern" under the following terms and conditions:

1. **Internship Period:** 04 months from the date of joining.
2. **General Working Condition:** From Saturday to Thursday.
3. **Honorarium:** During your internship, you will get a monthly honorarium of Tk. 10,000.00 (Ten Thousand)
4. **Job Responsibility:** You shall perform your duty with our Marketing Team at our Corporate Office, Dhaka.
5. Leave shall be enjoyed as per Company's leave policy.
6. Your service will be regulated under the rules and regulations of the organization, currently in force and to be in force in future.
7. You shall observe and follow the standing orders, rules regulations of the establishment in force and instruction of your superiors.
8. You are requested to join within 13/09/2025 at 10:00 am to the TMSS LPG Ltd., Amanullah Trade Center (4th Floor), Gulshan-2 Circle, Dhaka.

Thanking you,



08/09/25

Managing Director
TMSS LPG Limited

CC to:

1. Additional Managing Director's, BCL Group.
2. Deputy Managing Director's, BCL Group.
3. Head of Sales & Marketing, TMSS LPG Ltd.
4. Personal File Copy.
5. Office copy.