

INTERNSHIP REPORT

An Appraisal of BOC Bangladesh Limited

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ACKNOWLEDGEMENT

I could not have completed this report without the help of people and authority. Although space constraints me to put everyone's name here. I shall at least put in the names of those without whose help this report would never been completed.

First, I should thank Mr. S I Nusrat A Chaudhury, Chairperson and Associate Professor, Department of Business Administration, East West University for his kind and helpful effort to me. My internship advisor Dr. Tanbir Ahmed Choudhury, Associate Professor, East West University, who advised and guided me to complete this report on time. Dr. Golam Ahmed Faruqui, Assistant Professor, East West University also was very helpful and kind to me in completion of this report.

Very special thanks to Mr. N E A Shibly, Director Human Resources, BOC Bangladesh Limited, to whom I should be kind and obedient for his kind cooperation. Thanks to Mr. Tariqul Islam, Area manager IPD Dhaka (South), BOC Bangladesh Limited, without his help and cooperation I could not make this report. Mr. Moinul Islam Khan, Market Development Manager, BOC Bangladesh Limited and Mr. Mustafa Mahmud, Marketing Service Officer, BOC Bangladesh Limited helped me a lot to gather information from the right track and to arrange my report in the right way. Mr. A. Halim Khan, Customer Relation Officer, BOC Bangladesh Limited helped me to make customer surveys and other surveys was required to make my report. All the executives and officers of BOC Bangladesh Limited always inspired me and supported me to make this report successful.

I gratefully acknowledge the help and support of faculties and students of East West University to complete this report. All of them have immense contribution in my work of this report. I am sincerely thankful to all of them.

PREFACE

Internship and its report is mandatory requirement of the Bachelor of Business Administration (in Finance) program, under School of Business at East West University. The prime objective of the internship program is to provide prospective undergraduates with on the job exposure and an opportunity to apply theoretical knowledge so far received into real life situation.

As an internship program this researcher worked in BOC Bangladesh Limited from May 15, 2001 to August 15, 2001. After successful completion of this internship program this researcher has to submit an internship report. This report entitled- “An Appraisal of BOC Bangladesh Limited”. This report has completed during the three month long internship program in BOC Bangladesh Limited.

The internship objective was to gather practical knowledge and experiencing the corporate working environment with the close proximity to the business firm and the experts who are leading and making strategic decisions to enhance the growth. This researcher enthusiastically went through the company and collected the information in details from various primary and secondary sources.

For the convenience of readers this report divided into two different parts. One is “Organization part” and another is “Project part”.

August 14, 2001

Dr. Tanbir Ahmed Choudhury
Associate Professor
East West University
Mohakhali, Dhaka

Dear Dr. Tanbir:

I the undersigned student of Internship Program (BUS-499) am graduating from Bachelor of Business Administration (BBA) in Finance. As a prerequisite of graduation I was assigned to submit an internship report on BOC Bangladesh Limited. I enthusiastically went through the company and collected the information in details from various primary and secondary sources.

I considered your remark very carefully and analyzed the project according to your instructions. I tried to crystallize the report as much as possible. I followed your instruction, schedule, format and discipline obediently and sincerely. Though the available time period was short, the results were highly positive. This report is successful for cordial cooperation and fast response from the BOC Bangladesh Limited authority. I am really grateful to you, because of your tiresome effort, which provided me the opportunity to make a report based on the real life situation.

I have thoroughly enjoyed working in this interesting topic and shall be available for any further clarification you may require. Thank you for your consideration.

Sincerely Yours,


Muhammad Taif-Ul-Islam

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EXECUTIVE SUMMARY

BOC Bangladesh Limited registered as Bangladesh Oxygen Limited in 1973, with a turnover of about Tk. 6 million. The turnover in 2000 was about Tk. 843 million. BOC Bangladesh Limited started their operation with 3 small Oxygen plants and 3 Dissolved Acetylene plants. From inception, the Company has remained the sole supplier of Medical Oxygen in the Country. In the mid 70's a Nitrous Oxide plant was imported and installed in Dhaka to provide the nation with this vital anaesthetic gas, which is still the only one in Bangladesh. Meanwhile, the welding business of the Company was also growing fast and in the early 80's a state of the art RAM extruder was added to the production line, dramatically improving output and quality of electrodes. The Company went "public" in 1985 when the Government announced its right shares in favor of the public. A technical collaboration arrangement was made with the suppliers ESAB Group of Sweden. A distribution agreement has been signed with world class Welding Company, The Lincoln Company of USA. Bangladesh Oxygen Limited changed its name to BOC Bangladesh Limited in March 1995. The BOC Group, of which BOC Bangladesh Limited is a member, has its headquarters at Windlesham in the UK. It employs over 40,000 people and contributes to the economies of nearly 60 countries worldwide.

By doing SWOT analysis, the researchers found that BOC Bangladesh Limited have some strengths, weakness, opportunity, and threats. Their main strengths are corporate image, quality of product and services, knowledge based sales and service team, confidence on the brand, stronger distribution channel, ethical and standard business practice, wide range of product, countrywide service network, free training facility and so on. However, they have some weakness too. These are higher price, knowledge gap between customer and the company, less credit, prolong waiting time for procuring the product, monopoly attitude, quality of gifts, etc. In this modern era, they have the opportunities, like corporate image for the new product line, product range, customer support cell, knowledgeable executives, welding training center's role, extension of rural electrification, technology improvement, project customers and so on. Obviously there is some threat associated with their business. BOC Bangladesh Limited might have to face threats, like price increase of ships in international market, repeated accident in Chittagong, imported billet, local ingot, Thai-Aluminium and so on.

One survey was conducted at "Postogola" sales center and another survey was conducted to different executives of BOC Bangladesh Limited to identify the problems of the company relating to both the customer and the organization. From these surveys different types of problems has identified in the problem identification part.

To ensure the further improvement of the company recommendation part suggested some remedial measures to get rid from those problems identified in the problem identification chapter.

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INTRODUCTION

CHAPTER ONE

INTRODUCTION

1.0: An overview of BOC Bangladesh Limited

BOC Bangladesh Limited is both an old and a relatively new company. Old because it has been present in what is now Bangladesh, in one form or the other, since the days of British India. New, because it was registered under its own identity only in 1973. The Company began, after the independence of Bangladesh, with a modest turnover of a little over Tk 6 million. The turnover in 1998 was almost Tk 843 million.

BOC Bangladesh Limited started as Bangladesh Oxygen Limited with 3 small Oxygen plants and 3 Dissolved Acetylene plants, one of each in Dhaka, Chittagong and Khulna. In addition, it had an operating contract to run the Oxygen plants of Chittagong Steel Mills (CSM), which is still there today. For the manufacture of Welding Electrodes the Company had only one very small extruder.

From inception, the Company has remained the sole supplier of Medical Oxygen in the Country. In the mid 70's a Nitrous Oxide plant, which is still the only one in Bangladesh, was imported and installed in Dhaka to provide the nation with this vital anaesthetic gas. Later in the decade a Carbon Dioxide plant was bought and installed in Dhaka and this was the first in the country to produce dry ice. In the early 80's the first liquid gas plant was imported from New Zealand and installed in Dhaka, where the demand for Oxygen was concentrated.

Shortly after that came the first boom in ship cutting and demand for Oxygen "went through the roof". The Company invested immediately in additional compressing capacity for the surplus Oxygen at CSM while simultaneously pursuing the Government to permit it to invest in new production capacity. Eventually the Company was permitted to import a 400 cubic meters per hour air separation plant from Australia, capable of producing Liquid Oxygen, Nitrogen and, for the first time in Bangladesh, Argon. 90's booster was added to this to increase output, pending investment in further capacity.

Meanwhile, the welding business of the Company was also growing fast and in the early 80's a state of the art RAM extruder was added to the production line, dramatically improving output and quality of electrodes. The Company, in another innovative move, invested in a wire drawing machine for the electrode factory. A second RAM was added in the late 80's to keep up with demand.

The Company went to "public" in 1985 when the Government announced its right shares in favour of the public.

The 90's witnessed another change in the fortunes of the Company with deregulation and liberalisation of the economy. As it was specially purchased at Rupganj, near Dhaka, where the Company installed a 30 tonnes per day air separation plant, the largest in the country. The US made plant produces Oxygen, Nitrogen and Argon is technologically, the most advanced in the world. It came on stream in 1995.

At the same time, the company also invested in a modern integrated welding electrode plant, made by the largest welding electrode manufacturers in the world, which was imported and installed at the new site in Rupganj. A technical collaboration arrangement was also made with the suppliers ESAB Group of Sweden and the plant went into production in 1995. Welding business received ISO 9002 certification in the following year. A distribution agreement has been signed with world class Welding Company, The Lincoln Company of USA.

Bangladesh Oxygen Limited changed its name to BOC Bangladesh Limited in March 1995 in line with a world-wide program of The BOC Group.

In March 1998 a second line of production was added to the integrated Welding Electrode Factory at Rupganj, doubling the capacity. Same year, in November 1989 a new site with a 20 TPD liquid plant was acquired in Shitalpur, Chittagong.

The BOC Group, of which BOC Bangladesh Limited is a member, has its headquarters at Windlesham in the UK. It employs over 40,000 people and contributes to the economies of nearly 60 countries world wide, with a turnover in excess of US\$ 6 billion.

1.1: Objective of the Study

- I. To present a historical overview of BOC Bangladesh Limited.
- II. To appraise the Production, Financial and Marketing performance of BOC Bangladesh Limited.
- III. To identify the Problems of BOC Bangladesh Limited.
- IV. To suggest some remedial measures for the development of BOC Bangladesh Limited.

1.2: Scope and Methodology of the Study

This study has completed based on primary and secondary data. Secondary information and data has collected from the annual reports and other publications from BOC Bangladesh Limited. In order to collect the first hand or primary information the researcher prepared two structured questionnaire for the customers of BOC Bangladesh Limited and for the relevant executives of BOC Bangladesh Limited. Approximately 100 customers and about 10 relevant executives have interviewed with the questionnaire. The data and information has collected for the last 10 years.

All the growth rate of different chapters measured on the basis of changing base year. So each of the growth rate shows the improvement from the previous year.

All the customer surveys and in-office customer satisfaction surveys was conducted in Postogola sales centre. Postogola sales centre is selling the highest amount of industrial product in Taka and in the quantity.

With the set guidelines and proposal by the School of Business of East West University and with the kind advise of both the organization and internship supervisor this report comprises into two parts. Part one is “**Organization Part**” and another part is “**Project Part**”

1.3: Limitations of the Study

The researcher has to complete the internship and prepare an internship report within a semester. Due to time constraint it was not possible for the researcher to take a large sample size for analysis. In briefly, researcher faced following limitations during the time of preparing this report.

- The questionnaire was limited to the executives of BOC Bangladesh Limited
- It was not possible to survey all the customers of BOC Bangladesh Limited
- Access to some important data was denied
- To visit all the sales centre was not possible within this short time period
- Due to time shortage, details of many aspects of the services of BOC Bangladesh Limited have been skipped in this report.

ORGANIZATION

CHAPTER TWO

ORGANIZATION

2.0: Introduction

BOC Bangladesh Limited started their business in this geographical area from the British India time. It is 52 years from the time they have started their business in this location. But after the liberation war they have registered their company as Bangladesh Oxygen Limited in 1973. They are operating in this market for long time. During this time BOC Bangladesh Limited went for different type of acquisitions. There is no other major competitor of BOC Bangladesh Limited in this country according to the customer facilities, product variation, wide business range and so on. One of the strongest sides of BOC Bangladesh Limited is its product and customer services quality.

To fulfill the requirement of this organization part, this part will be discussing on The BOC Group Plc. UK, BOC Bangladesh Limited and SWOT analysis of BOC Bangladesh Limited.

2.1: An Overview of BOC Group Plc. UK

The BOC Group is a global company, pursuing technological leadership and innovation at many levels and in many locations. Their resources include a worldwide network of scientists; engineers and technicians, all linked together so that information and expertise can flow freely around the Group. The success of their global technology effort can be measured in many ways; by the number of patents they seek for their new inventions – an average of three per week – and by the continuous flow of new products and processes delivered to their customers.

The BOC Group has an international portfolio of companies grouped for management control and reporting into three business segments. These are Gases & Related Products, Health Care and Vacuum Technology & Supply chain Solutions. BOC Adds value to a diverse range of industries and organizations world wide: from electronics to food; from water treatment plants to chemical processes; from coating most of the world's high-performance glass to distributing food, clothes and other consumables.

The BOC group has historically focused on its geographic strengths, building relationships in the countries that it serves. Recent changes have turned the organization outward, to focus more upon our customers and their needs. The BOC Group's orientation is now toward markets, encouraging product and process innovation worldwide. Whilst needing to retain local strengths, there are global markets emerging which can best be served by an organization with worldwide capability. Global customers expect to do business with BOC gases on a global basis, and they are focused on a number of global market sectors to pursue the objectives of customer focus and global effectiveness.

Whatever the industry or interest, our goal is to respond to their needs as quickly and effectively as possible. Their ever-changing requirements are the driving force behind the development of company's products, technologies and support services. BOC recognizes that BOC people are the most important asset and through them company can ensure that we play a full and active role in communities around the world and they are committed to the highest standards of safety and environmental practice. At the same time, they believe that the best way they can assist any of the communities in which they operate is to build a successful business.

The BOC group is built around its customers, more than two million of them found all over the world. BOC is one of only a handful of truly global companies based in the UK. They manufacture in some sixty countries and sell their products in more. They employ 40,000 people and thrive and expand by meeting the need of our customers.

2.2: Company Vision of The BOC Group Plc UK

Company vision for The BOC Group Plc UK is as follows,

“We shall be recognized as the leader in all the business sectors in which we complete.

Our success will be built on our absolute dedication to the satisfaction of our customers, through constant innovation, operational efficiency, cost effectiveness and the talents of our people.

We shall always apply high standards of integrity and responsibility in our activities.”

3.3: Corporate Objectives of The BOC Group Plc UK

Corporate objectives for The BOC Group Plc UK are as follows,

“Corporate Image: To be seen as a progressive company of high reputation and integrity, which provides good value for its products and services.

To be seen by the government, the public, customers, suppliers and the employees as acting in a socially responsible manner and consistent with national aspiration and objectives.

Development: To pursue a policy of progressive import substitution of industrial and medical gases, welding equipment and consumables wherever economics of production justify local manufacture.

To maximize local, value addition by progressive import substitution of inputs.

To install adequate production facilities in advance of the demand so as to ensure continuing ability to meet the growing need for our products.

To develop new markets and applications of products and processes and to set up facilities to serve them.

Technology: To develop proficiency and competence in welding, cryogenics and gas production technology and to promote new applications of products and processes and to set up facilities to serve them.

To be regarded as the foremost and most knowledgeable institution in the country in this field.

Marketing: To maintain the position of principal domestic manufacturer and supplier of industrial and medical gases, electrodes and welding health care equipment, by offering reliable supplies of good quality products at fair prices.

Safety: To provide an accident-free environment for employees by promoting, encouraging and implementing safe working practices throughout the company. To develop and foster increased customer awareness of safe product handling practices and procedures.

Personnel: To provide a productive and satisfying work environment for employees, offering opportunities for personal development and advancement in career. To pursue a policy of systematic development of human resources in the Company.

Profitability: To earn an adequate return on stockholders' equity and to generate sufficient surplus for growth and expansion.”

2.4: Operation of The BOC Group Plc UK

The BOC Group Plc. UK is contributing to the economies of 60 countries in the world.

2.5: Nature of business of The BOC Group Plc UK

The company's principal activity is the manufacture and supply of industrial and medical gases, welding equipment and products, anesthesia and ancillary equipment.

2.6: BOC Bangladesh Limited

BOC Bangladesh Limited is a member of The BOC Group Plc UK. It incorporated in Bangladesh 1973 as Bangladesh Oxygen Limited. This company name changed to BOC Bangladesh Limited in March 1995.

2.7: Shareholders of BOC Bangladesh Limited

BOC Bangladesh Limited is a member of The BOC Group Plc UK. There are 5 (five) groups of share holders of BOC Bangladesh Limited. These are:

- **The BOC Group Plc UK:** United Kingdom based multinational company. It has a long history of successful cooperation with other operators in different countries through out the world.
- **Investment Corporation of Bangladesh (ICB):** A pioneer financial institution of Bangladesh. Active member of Dhaka Stock Exchange. They lunched eight mutual bonds into the secondary market.
- **Bangladesh Shilpa Rin Sangstha (BSRS):** Government owned financial institution. Usually invest indifferent portfolio fund and syndicate to underwrite initial public offerings.
- **Sadharan Bima Corporation:** Pioneer in insurance sector of Bangladesh. They used to help flourishing our economy.
- **Other Shareholders**

These five companies own shares of BOC Bangladesh Limited in the following manner:

Company	Percentage of Shares
The BOC Group Plc UK	60.0
Investment Corporation of Bangladesh (ICB)	21.0
Bangladesh Shilpa Rin Sangstha (BSRS)	1.2
Sadharan Bima Corporation	1.4
Other Shareholders	16.4

2.8: Market development of BOC Bangladesh Limited

Since the introduction of this company in 1973, BOC Bangladesh Limited developed to the present conditions in the following way:

- It was registered under it's own identity in 1973.
- The Company began, after the independence of Bangladesh, with a modest turnover about Tk 6 million. The turnover in 2000 was about Tk 1,047 million.
- BOC Bangladesh Limited started their operations as Bangladesh Oxygen Limited with 3 small Oxygen plants and 3 Dissolved Acetylene plants, one of each in Dhaka, Chittagong and Khulna. In addition, it had an operating contract to run the Oxygen plants of Chittagong Steel Mills (CSM).

- In the mid 70's a Nitrous Oxide plant was imported and installed in Dhaka to provide the nation with this vital anaesthetic gas.
- In 1970's a Carbon Dioxide plant was bought and installed in Dhaka and this was the first in the country to produce dry ice.
- In the early 80's the first liquid gas plant was imported from New Zealand and was installed in Dhaka, where the demand for Oxygen was concentrated.
- In the early 80's a state of the art RAM extruder was added to the production line, dramatically improving output and quality of electrodes.
- A second RAM was added in the late 80's to keep up with demand.
- The Company went "public" in 1985 when the Government renounced its right shares in favor of the public.
- The 90's witnessed another change in the fortunes of the Company with deregulation and liberalization of the economy. As it was specially purchased at Rupganj, near Dhaka, where the Company installed a 30 tonnes per day air separation plant, the largest in the country.
- The US made plant produces Oxygen, Nitrogen and Argon and is technologically, the most advanced in the world. It came on stream in 1995.
- At the same time, the company also invested in a modern integrated welding electrode plant, made by the largest welding electrode manufacturers in the world, which was imported and installed at the new site in Rupganj.
- A technical collaboration arrangement was also made with the suppliers ESAB Group of Sweden and the plant went into production in 1995.
- Welding business received ISO 9002 certification in 1995. A distribution agreement has been signed with world class Welding Company, The Lincoln Company of USA.
- Bangladesh Oxygen Limited changed its name to BOC Bangladesh Limited in March 1995 in line with a world-wide program of The BOC Group.
- In March 1998 a second line of production was added to the integrated Welding Electrode Factory at Rupganj, doubling the capacity.
- In November 1989 a new site with a 20 TPD liquid plant was acquired in Shitalpur, Chittagong.

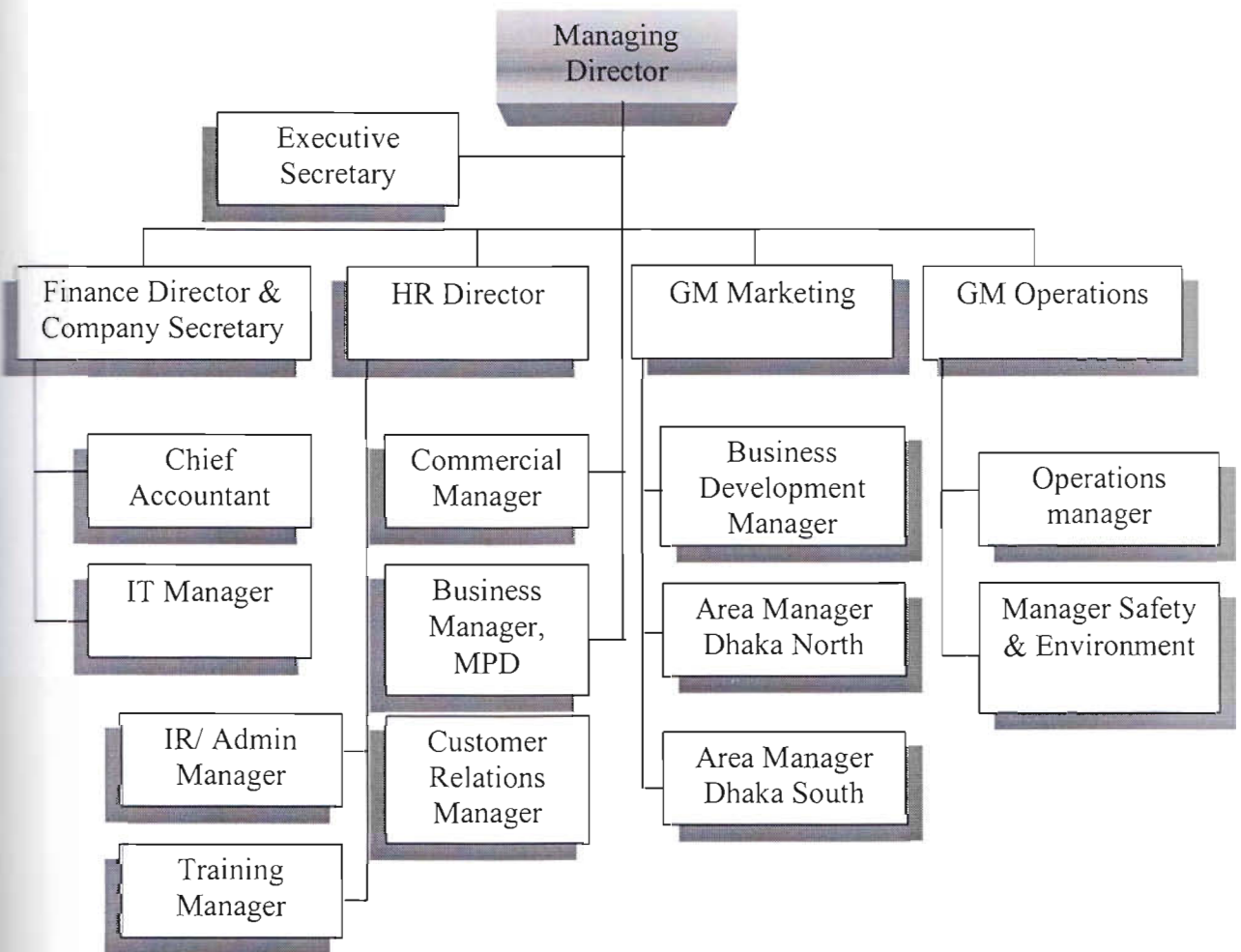
2.9: Organizational Units of BOC Bangladesh Limited

There are 5 (five) different departments of BOC Bangladesh Limited. These are:

- ❖ Finance
- ❖ Human Resource
- ❖ Commercial
- ❖ Marketing
- ❖ Operations

Organization Structure of BOC Bangladesh Limited

The following chart shows different department and position of the company.



2.10: SWOT analysis of BOC Bangladesh Limited

SWOT analysis techniques is the basic strategic management tools because it expose the company's resource strengths and deficiencies, its best market opportunities, the outside threats to its future profitability and its competitive standing relative to the rivals. Insightful Company situation analysis is a precondition for identified the strategic issues that management needs to address and for tailoring strategy to company resources and competitive capabilities as well as to industry and competitive conditions.

Sizing up a firms resource strengths and weakness and its external opportunities and threats, commonly known as SWOT analysis, provides a good overview of whether a firms business position is fundamentally healthy or unhealthy. SWOT analysis is grounded in the basic principle that strategy-making efforts must aim at producing a good fit between a company's resource capability and its external situation. A clear view of a company's resource capabilities and deficiencies, its market opportunities and the external threats to the company's future well being are essential. Otherwise, the task of conceiving a strategy becomes a chancy proposition indeed.

2.10. 1: Strengths of BOC Bangladesh Limited

Characteristic that gives the company to enhance competitiveness may be considered as the strengths of the company. These resources, in conjunction with industry and competitive conditions, are big drivers in how well the company will be able to perform in a dynamic competitive marketplace. Strengths of BOC Bangladesh Limited are discussed below.

❖ Corporate Image

BOC Bangladesh Limited has started their business in this area from British India time. They experienced for different business movement. BOC has got their registration under the company name from the Govt. of Bangladesh in 1973. So they know the booms and bursts of our economy. They know how to satisfy the customers. Product price of BOC Bangladesh Limited is higher than any other competitors, but still they are getting business. In many cases they are the pioneers of the industry. This is why they have got the corporate image through out the country, which is a great intangible asset for the company.

❖ Quality of product and service

BOC Bangladesh Limited is the pioneer of their industry. They are committed to their customers to provide the best quality of product and services. It has mentioned that the price of BOC product is higher than any of their competitors, but the quality is also higher than any of their competitors. That's why they are still getting their business and customers. This quality also includes the quantity and the standard weight of the products.

❖ **Knowledge based sales and service team**

BOC Bangladesh Limited always maintain quality for their product and services. To provide best services to the customers they also maintain the best quality for the sales and service team. These sales and service team are highly educated and trained to face any sort of situation. Different training program usually is organized to give them feedback about the latest product and services knowledge.

❖ **Confidence on the brand**

Long business duration, corporate image, product and services quality and attitude of the company to the customers made customers so influenced that they got confidence on the brand. If any new product offer any new benefits for the customers they even don't want to test it only for the confidence about the BOC brand products. In many situation It has found that customers want to purchase less if the product is not available for the short time but they don't want to take competitors product. The reason behind this confidence is the quality and the services that BOC Bangladesh Limited is offering to them.

❖ **Stronger distribution channel**

According to the chart 5.4, distribution channel of BOC Bangladesh Limited, It has found that company send all the products from factory to the sales center. There are 24 sales center of BOC Bangladesh Limited through out the country. These sales centers are selling products to the resellers, agents, institutional buyers, re-rolling mills, ship builders, job welders, scrap cutters, boat builders and project customers. So all the responsibility to reach product to the customers is looking after by the company itself. Only some of the end users are buying their required items from the resellers and agents. But there is no extra hazards for the customers and there is no extra cost involved for the distribution channel of BOC Bangladesh Limited. That's why company considers their distribution channel is better then any other competitors.

❖ **Long established relationship with customers**

As it is mentioned that BOC is not a new company for Bangladesh. They are the pioneers for many industrial and medical products in this country. This company is serving the demand of this country for the long time period, they also committed the best quality and services to the customers, they are practicing the ethical and fair business in this country, They never makes any business process critical and non-transparent. That's why company and customer relation is going on with a steady pace. This relation makes the company more confident to serve them in full pace and in new improved policy to make the relationship more strongly.

❖ **Non-availability of competitors product**

BOC Bangladesh Limited is a multi national company. They have achieved the corporate image, long established customer relation, customers confidence and so on. On the other hand the competitors of BOC are new in this country according to their technology, policy and quality. So it is very difficult to maintain all the demand of the customers. Being new in industrial sector always make them interrupted production as well as flaws in the distribution channel. These are the key reasons for non-availability of their product.

❖ **Ethical and standard business practice**

BOC Bangladesh Limited is committed to the customers and the government of Bangladesh for their transparent business. BOC always try to maintain all the ethical business and all the custom of this country. They never go for the unethical business even if it is the easiest way to get the solution or the result. There are a lot of examples that BOC had chance to escape from the regulation provided by the authority and they never compromised for at the subject of ethics.

❖ **Wide range of product**

There are two business segment of BOC Bangladesh Limited. These are industrial products and medical products. This company trades more than hundred types of gases, equipment and other accessories. No other company within this industry has this much verity of products. This is another service to the customers to choice their product from the wide range of product list. So it is another competitive advantage for the company over the competition.

❖ **Country wide service network**

There are 24 sales center of BOC Bangladesh Limited. These sales centers are covering all the country. Except Dhaka and Chittagong, all the sales centers are covering their districts and other close areas. For welding electrodes almost all the thanas of the country are covering by the sales centers and the resellers. So this much distribution and service network is not possible to maintain for the competitors of BOC only because of the knowledge and experiences.

❖ **Free training facilities**

There is a welding training center is available in Dhaka, Tejgoan factory area to provide the free training to the job welders. Through this facility BOC Bangladesh Limited is providing the product knowledge and the best way to get the optimum result out of the given effort. Through this training program company also want to contribute the safety-working environment for the customers.

2.10.2: Weaknesses of BOC Bangladesh Limited

A weakness is something a company lacks or does poorly or a condition that puts it at a disadvantage. A company's internal weakness can relate to deficiencies in competitive important skills or expertise, a lack of competitively important physical, human, organizational or intangible assets, or missing or weak competitive capabilities in key areas. Internal weaknesses are thus shortcomings in a company's complement of resources. A weakness may or may not make a company competitively vulnerable, depending on how much the weakness matters in the marketplace and whether it can be overcome by the resources and strengths in the company's possession. Here some of the weaknesses of BOC Bangladesh Limited are described in below.

❖ Higher Price

BOC Bangladesh Limited is charging higher price than any other competitors. For the same product BOC is charging about double price than the competitors. This is the largest weakness of the company. Customers are often complaining that they could not pay for the amount of their required products. So this higher price makes them to lose their product purchasing power.

❖ Knowledge gap between customers and the company

BOC Bangladesh Limited is used to maintain the high tech equipment and products. Customers of BOC are not equally educated to absorb the product knowledge of BOC. So there is always a information gap between customers and company. This gap is making the customers reluctant to use these products.

❖ Less credit

BOC Bangladesh Limited is processing all of their product procurements through the automated system. So in this system there is no chance to make too much credit than the system described. So they can not provide high credit facilities to the customers. This is another complain customers are used to do. The competitors are offering high credit facilities to the customers, so these customers are looking for the same facility from BOC Bangladesh Limited.

❖ Non availability of product

Plants and equipment are not bound to follow the customer or even the company demand. It is very usual to get interrupt production often. Plants and equipment requires maintenance, this is another reason for interrupt production. Often unusual product demand may arise. So for this time product shortage hurt the customers.

❖ **Prolong waiting time for procuring the product**

To use the automated product procuring system should be used for the benefit of the company and the customers. If this automated system make the process lengthy then it is very painful for the company as well as the customers. This is what happening in BOC. From the analysis It has found that to procure all the tasks for the product it makes a long queue. It also observed that many customers are coming at morning and leaving the sales center with the product at after noon. So this is hurting the customers feelings. Immediate action should be taken to resolve these problems.

❖ **Monopoly attitude**

BOC Bangladesh Limited is the pioneer in this industry. So they have experienced the entire boom and burst situation of the economy. That's why they often behave at a monopolistic way. Higher price charge is one of those attitudes. It is fund many times the sales and services teams are not working, where the necessary immediate modification is required. They often show their reluctant attitude to the customers. This is negatively reinforcing the customers.

❖ **Quality of gifts**

During different customer visit time BOC Bangladesh Limited used to gift to the customers. These gifts include calendar, moneybag, cap, dairy and so on. But according to standard It has found that the quality of these gifts is not very satisfactory. So it promote negatively if the quality of gift become so poor.

2.10.3: Opportunities of BOC Bangladesh Limited

Market opportunity is a big factor in shaping a company's strategy. Indeed, managers can't properly tailor strategy to the company's situation without first identifying each company opportunity, appraising the growth and profit potential each one holds and crafting strategic initiatives to capture the most promising of the company's market opportunities. Depending on industry conditions, a company's opportunity can be scarce and can range from wildly attractive. The market opportunities most relevant to a company are those that offer important avenues for profitable growth, those where a company has the most potential for competitive advantage and those that match up well with the financial and organizational resource capabilities which the company already possesses or can acquire. Here opportunities of BOC Bangladesh Limited are discussed below.

❖ **Corporate image for the new line of products**

BOC Bangladesh Limited has started their business in this geographical location from the British India time period. Still they are operating their business activities in Bangladesh, India, Pakistan and many other countries. So Ultimately people can trust them for their business duration and business success over the

competitors. Another image this company achieved is the customer satisfaction. This company always tries to satisfy the customers by product variation, quality and other precautionary system. That's why people trust this company and still they are coming to get their required product from this company. From customer survey it has found that a large number of customers are buying BOC product only for the corporate image.

❖ **Varieties of product**

BOC Bangladesh Limited is offering the highest number of products for the customers. From different analysis it is also found that there is no other rivals of BOC Bangladesh Limited operating in this country, offering varieties of product for their customers. Here corporate limitation should be considered as a great factor. BOC Bangladesh Limited is a subsidiary company of BOC Group Plc. UK. That's why they are getting more products offering facility than the competitors. Varieties of product provides the customer more choice, they can trade off their position and requirements. This is why product variation of BOC Bangladesh Limited is considered as an opportunity for the company.

❖ **Customer support cell**

BOC Bangladesh Limited has a customer support division. The primary objective of that division is to make sure the uninterrupted product supply and after sales support. This cell work for the customer. So that customer could get the company representative as and when they need. There is no other company within the same industry for this type of support for the customers. That's why customers are getting confidence that they will not face any kind of hazard to maintain the relationship with the company, which is influencing customers to get the services that BOC Bangladesh Limited is offering.

❖ **Highly knowledgeable executives**

All the concern employees of BOC Bangladesh Limited are highly educated and knowledgeable about the products they are offering to the customers. This is why they can help the customers to choice the best product for them. Customers are getting suggestions for their product and product uses. BOC representatives are also knowledgeable about their customer production. That's why they can solve different problems regarding customer production and the best way to use BOC product for their purposes.

❖ **Welding Training Center's role**

There is a Welding Training Center (WTC) in Dhaka factory of BOC Bangladesh Limited. From this center BOC usually train job welders to maintain safe and efficient production and product uses. For this centers support welders know a lot of way, how they could get the effective way of production or tasks. This training center and the training program also attracting customers. This training center is

providing idea to the customers that BOC is taking their care more than any other company. This is why this welding training center is considering as an opportunity for the company.

❖ **Extension of rural electrification**

Bangladesh is growing for the days coming in near future. Electricity is one of the major issues for the whole country. Without electricity we can not think for a day. Now a day, rural development is the major concern for our country. To develop rural areas it is necessary to expand the electricity facility to these areas. When will electricity come to the rural areas than BOC product will be more demanded for those area. Because all the development process requires the product BOC is offering to their customers. To develop those rural areas it is required to use some of the products of BOC product lists. And after the process is over than some of the BOC product will be required to keep development process continuous. Some other business will be expanding those areas like, welding and cutting business, which requires the BOC product. That's why whenever the rural developments process going on BOC business also expanding through those processes.

❖ **Vaporizing Insulated Evaporator (VIE) facility**

Those customers are using bulk amount of gases from BOC and to other companies could use this effective and efficient facility offering BOC Bangladesh Limited. This Vaporizing Insulated Evaporator provides the customers less cost, more convenient to use, uninterrupted supply and some other facilities. That's why the bulk gas users like, ship breakers of Chittagong shipyard, different pharmaceuticals, lamp manufacturer, etc. are using this facility from BOC Bangladesh Limited. No other companies of this country have this type of facility to offer. This is why the large gas customers may try for this facility. If any one customer use this facility as a test than they will not give up this facility if they are going to cut their product or making stop their business.

❖ **Technology improvement**

Because of having collaboration with the world class and reputed companies BOC Bangladesh Limited can upgrade their technology as soon as the new one is coming to the market. The concern of this company is the better quality and services than any other competitors. That's why they try to adopt the best and new technologies to serve the customers in new ways. Future era will be depending on latest and improved technologies. For this reason every company need to adopt the latest technologies. In this part BOC is stays in ahead of the time, which is a great opportunity for the company as well as the customers of the company.

❖ **Project customers**

All the project customers are came and coming in future are depend on BOC product. These customers usually use different types of gases and welding electrodes for their different type of purposes. These customers believe in quality. they don't know about other competitors of BOC. But because of having a very well corporate image in international market, BOC is getting all of these customers, which is a great finding for the company.

2.10.4: Threats of BOC Bangladesh Limited

Often, certain factors in a company's external environment pose threats to its profitability and market standing. External threats may pose no more than a moderate degree of adversity or they may be so imposing as to make a company's situation and outlook quite tenuous. Management's job is to identify the threats to the company's future well being and evaluate what strategic actions can be taken to neutralize or lessen their impact. Here strengths of BOC Bangladesh Limited is given in below.

❖ **Price increase of ships in international market**

Ship breakers of shipyard are one of the prime customers of BOC Bangladesh Limited. Any good and bad situation related to the ship breaking business effects the company immediately. Very recently in international market all the ship price has increased, which effected all of its related business in our country. It's a chain, because when ever ship price increase then the charge for the ship breaker also increase, then the ship scarp price also increase at the charge of ship increased. When the scarp price go high then all the industries related with scarp and ship breaking business would get effected. Demand for gases go down and as the same BOC business also burst to the downfall. So this ship price change could be a threat for BOC Bangladesh Limited.

❖ **Repeated accident in scarping yard at Chittagong**

According to the news and journals it has identified that repeated accident in scarping yard at Chittagong is making people frightened. Any thing happens in this area immediately affect other related or linked businesses of this country. Repeated accident makes the ship yard a questionable business. For this reason they might fall in trouble in very near future. If this situation happen, that would be making a great harm for the business of BOC Bangladesh Limited.

❖ **Imported billet**

Billet is pieces of cast iron, produced from melted scarps. These billets are using into the Re-rolling mills for reproduce the metallic construction materials. These imported billets are getting this market and that's why our ship scarps are loosing market. Though the quality of billets product are not very satisfactory but still it is getting the market only for the lower cost. Uses of billets are cutting the uses of

PART TWO: PROJECT

CHAPTER THREE

**AN APPRAISAL OF PRODUCTION PERFORMANCE
OF
BOC BANGLADESH LIMITED**

Filtering, compressing and cooling of atmospheric air

Ambient air enters through a filter to the air compressor and gets compressed. Compressor raised the pressure and temperature. During compression the air is cooled by refrigeration system and condenses removed after each stage of compression. The air leaves the compressor and further cooled in air chiller before entering to the adsorption bed.

Purification by removing water and CO₂

The cool air flow into one of the 2 adsorption beds which removes impurities from the air such as CO₂ and remaining moisture. The clean and dry air passes through the main heat exchanger, which cools the air to an optimum temperature for the air separation process.

Liquefy the air by cooling to cryogenic temperatures

The clean dry air now gets into the cold box module. The principal components internal to the cold box are the main heat exchanger, the nitrogen distillation column, the oxygen distillation column, the crude argon distillation column, the pure argon distillation column, the pure argon storage vessel, the warm turbine housing and cold turbine housing. The two turbines provide all of the cryogenic refrigeration required in the cold box for the production of Liquid Oxygen, Liquid Nitrogen and Liquid Argon. The cryogenic cooling is supplied to the main heat exchanger.

Distillation to separate air into nitrogen, oxygen and argon

Nitrogen Column: Partially liquefied process air from the main heat exchanger is sent to nitrogen column, where liquid enters the column and vapor rises to the top. AS the vapor rises it contacts reflux liquid falling down the trays. The rising vapor becomes richer in nitrogen column is condensed into liquid in the Reboiler Condenser in the oxygen column and is returned to nitrogen column for reflux. The remaining liquid is sent to the main heat exchanger where it is subcooled and sent to the oxygen column where it is used as reflux.

Oxygen Column: The primary feed to the oxygen column is the rich liquid from the crude argon condenser, which is located at the top of the crude argon column. After entering to the oxygen column, the liquid falls down the trays as it contacts rising nitrogen vapor, which warms the liquid. As the liquid warms it releases more volatile nitrogen vapor, which leaves the remaining liquid richer in oxygen. This liquid is again boiled up and the vapor that raises from the bottom becomes richer in nitrogen. This rich nitrogen vapor moves upward and liquefies the balance oxygen and it falls down the trays. Liquid oxygen is taken out as a product from the bottom of the column.

Crude Argon Column: A tapping into the oxygen column has been selected in such a way so that a maximum argon concentration is obtained in the vapor. This concentrated oxygen/argon vapor is sent to the argon column. The more volatile argon rich vapor rises towards the top of the column. This crude iron vapor feeds to the condenser and a portion of the argon rich vapor is condensed and returns to the column as reflux liquid. The remaining argon rich vapor has taken out as crude argon product and routed to the Argon purification module (APM), which removes oxygen from the rich argon vapor.

❖ In Medical Product Division (MPD) segment there are 26 product segments are available. These are:

- ◆ Medical Oxygen
- ◆ Nitrous Oxide
- ◆ Entonox
- ◆ Sterilizing Gases
- ◆ Medical gases Cylinders
- ◆ Anesthesia machines
- ◆ Anesthesia Ventilators
- ◆ ICU/CCU Monitoring System
- ◆ ICU/CCU Ventilators
- ◆ Infusion/Syringe Pump
- ◆ Pulse Oximeter
- ◆ Nerve Stimulator
- ◆ Blood gas Analyzer
- ◆ Infant Warmer
- ◆ Photo Therapy Unit
- ◆ Infant Incubators
- ◆ OT Table
- ◆ OT Light
- ◆ Autoclave / Sterilizer
- ◆ Gynecological Tables
- ◆ Medical Disposable
- ◆ Humidifier
- ◆ Nebulizer
- ◆ Resuscitators
- ◆ Medical Pipeline-Installation and Service
- ◆ Other Medical Equipment on request

3.2: Major Category-Wise Production Capacity

Table 3.2 (1): ASU Gases Production Capacity of BOC Bangladesh Limited

Unit of Measure	Year	ASU Gases Capacity	Growth (%)
000 M3	1991	4,556	
	1992	4,556	0.00
	1993	4,700	3.06
	1994	4,700	0.00
	1995	5,015	6.28
	1996	10,086	50.28
	1997	9,782	-3.11
	1998	9,782	0.00
	1999	13,775	28.99
	2000	13,413	-2.70

Source: Annual Reports of BOC Bangladesh Limited

According to the production capacity information from the year 1991 to 2000 of BOC Bangladesh Limited, it has found that in every year except 1993, 1995, 1996 and 1999 the growth rate of production capacity didn't increased. From the table 3.2 (1) it is observed that highest growth of ASU gases capacity increased in 1996. Due to commissioning a new plant in Rupgonj, this much capacity has increased. In 1993, gas sales increased by 15% but BOC Bangladesh Limited increased their gas production capacity only 4%.

In 1995, again a new ASU Gases plant was installed into the production of the company to meet the growing demand of the gases. At this time company increased their production capacity to meet the demand for the gases both in Chittagong and all other areas of Bangladesh.

By the acquisition of Hatim Oxygen Limited, BOC Bangladesh Limited extended their production capacity at the same time their market.

Due to maintenance and other technical faults in 1997 and 2000 production capacity has reduced.

Table 3.2 (2): Dissolve Acetylene production capacity of BOC Bangladesh Limited

Unit of Measure	Year	Dissolved Acetylene Capacity	Growth (%)
000 M3	1991	825	
	1992	825	0.00
	1993	825	0.00
	1994	825	0.00
	1995	825	0.00
	1996	825	0.00
	1997	825	0.00
	1998	825	0.00
	1999	825	0.00
	2000	825	0.00

Source: Annual Reports of BOC Bangladesh Limited

It has observed from the table 3.2 (2), that from 1991 to 2000 the production capacity of Dissolved Acetylene has never changed. Still this plant capacity is enough to support all the demand of the market.

Table 3.2 (3): Welding Electrodes production capacity of BOC Bangladesh Limited

Unit of Measure	Year	Electrodes Capacity	Growth (%)
Ton	1991	4,735	
	1992	4,735	0.00
	1993	4,735	0.00
	1994	4,735	0.00
	1995	7,635	37.98
	1996	10,855	29.66
	1997	6,120	-77.37
	1998	9,560	35.98
	1999	13,000	26.46
	2000	13,000	0.00

Source: Annual Reports of BOC Bangladesh Limited

Welding electrodes of BOC Bangladesh Limited is another pioneer product for the development process of Bangladesh. This product came in Bangladesh by the initiative of this company.

From the table 3.2 (3) it has observed that from 1991 to 1994 welding electrodes production capacity of BOC Bangladesh Limited was same. From the year 1995, production capacity of welding electrodes has increased by 37.98%. During this year a modern integrated welding electrodes plant was set up and commissioned, the full benefit of which experienced from that year. Though the welding business achieved reasonable growth in this year but margins were under pressure from rising raw material costs.

In 1997, due to devaluation and import of welding production inputs the cost base adversely affected. Though every thing was positive for the welding business, but this year one welding electrodes plant of Chittagong shut down, which reflected capacity burst.

Highest growth rate of welding electrodes was in the year 1995 because of commissioning the new plant. But after that year production capacity came in stable position after a burst of the year of 1997. From the year 1999 to the year 2000 the growth rate was zero, because of not increasing the production capacity.

3.3: Major Category-Wise Capacity Utilisation

What ever the production capacity BOC Bangladesh Limited had, their total production of gases always increased. They never felt in back from the demand of their customers. Their production capacity was always higher than the demand or the market. The reason behind this scenario is to backup any uncertain situation and to meet the demand any time could be raised.

Table 3.3 (1): ASU gases production of BOC Bangladesh Limited

Unit of Measure	Year	ASU Gases Production	Growth (%)
000 M3	1991	3,188	
	1992	3,409	6.48
	1993	3,879	12.12
	1994	4,303	9.85
	1995	4,628	7.02
	1996	6,000	22.87
	1997	7,389	18.80
	1998	8,227	10.19
	1999	9,840	16.39
	2000	10,261	4.10

Source: Annual Reports of BOC Bangladesh Limited

According to the table 3.3 (1) it is observed that from 1991 to 2000 every year production growth rate of ASU gases of BOC Bangladesh Limited has increased. The rate of growth was different in different years. Highest growth has occurred in 1996, which is 22.87%

The lowest growth rate was in 2000. According to the data and information It has found that maximum oxygen consumed by the ship-breaking yard or in the Re-Rolling Mills. But the high price of ships and the scrap both of those customers are reluctant to invest in a loosing concern. That's why the highest lay-off of Re-Rolling Mills was occurred at the beginning of this year. For this drastic and continuous unfavourable business total consumption of oxygen was dropped down. This is why the year 2000 had the lowest growth in the production.

Dissolve Acetylene is one of the major items of the portfolio of BOC Bangladesh Limited. It is observed that by selling Dissolve Acetylene to the market, company is generating a large amount of profit.

Table 3.3 (2): Dissolved Acetylene production of BOC Bangladesh Limited

Unit of Measure	Year	Dissolved Acetylene Production	Growth (%)
000 M3	1991	443	
	1992	475	6.74
	1993	472	-0.64
	1994	467	-1.07
	1995	473	1.27
	1996	463	-2.16
	1997	495	6.46
	1998	495	0.00
	1999	522	5.17
	2000	541	3.51

Source: Annual Reports of BOC Bangladesh Limited

Dissolved Acetylene actually is using to burn the sparkle with the help of Oxygen. This gas is mandatory for the welders, but not for the ship cutters and re-rolling mills users. These non-mandatory users can use the natural gas for their purposes.

From the table 3.3 (2), it is observed that from 1991 to 2000, every year production of Dissolve Acetylene has increased, except 1993, 1994, 1996 and 1998. Highest growth occurred in 1993, which is 6.74. On the other hand it has found that in 1996 highest negative growth was occurred, which is -2.16%. In the year 1998 growth rate was zero. Due to poor performance of the total business of the company over all sales of Dissolved Acetylene gas decreased. Any production always follows the demand and sells of that product. Though the production growth was low or negative but the total turnover of Dissolved Acetylene growing positively. This inverse situation might be happened due to the price change of the product.

Table 3.3 (3): Welding Electrodes production of BOC Bangladesh Limited

Unit of Measure	Year	Electrodes Production	Growth (%)
Ton	1991	3,151	
	1992	3,212	1.90
	1993	3,416	5.97
	1994	3,648	6.36
	1995	3,975	8.23
	1996	4,912	19.08
	1997	6,513	24.58
	1998	6,559	0.70
	1999	7,943	17.42
	2000	9,084	12.56

Source: Annual Reports of BOC Bangladesh Limited

It has observed from the table 3.3 (3), that every year from 1991 to 2000 production of welding electrodes has increased. Because of growth in the industrial sector and infrastructure in every year welding electrodes production was increased to meet the demand of the customers.

The devastating floods of 1998 affected company's operations for the part of the year, and recovery from the impact would be a challenge for all sections of the society. This is why the company made slower growths in 1998 to perform welding electrodes business.

3.4 Existing demand for products offered by BOC Bangladesh Limited

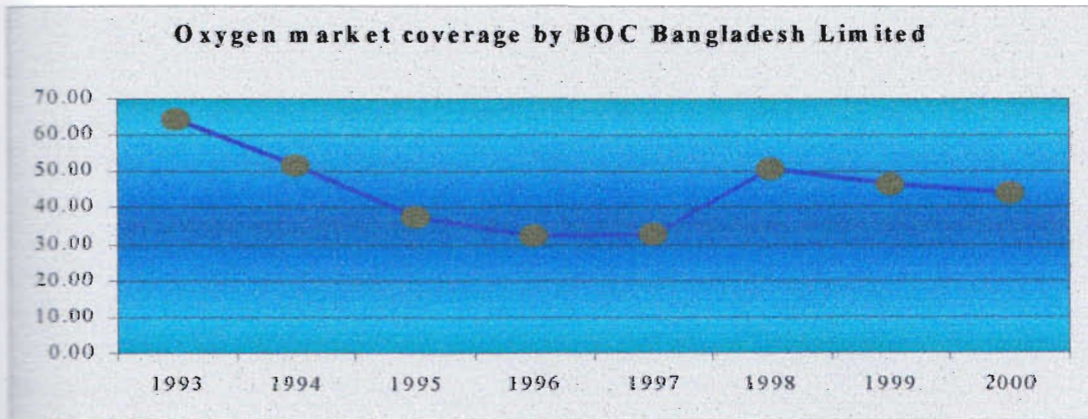
According to the above-mentioned information, It has found that BOC Bangladesh Limited is maintaining three broad categories of product as major products of the company. These products are ASU gases, dissolved acetylene and welding electrodes. In this existing demand of this chapter shows the percentage of the production, that BOC Bangladesh Limited is producing.

Table 3.4 (1): ASU gases production of BOC Bangladesh Limited

Unit of Measure	Year	ASU Gases Production	Production %
000 M3	1993	3,879	64.44
	1994	4,303	51.72
	1995	4,628	37.50
	1996	6,000	32.21
	1997	7,389	32.87
	1998	8,227	50.41
	1999	9,840	46.37
	2000	10,261	44.00

Source: Marketing Conference 2000 of BOC Bangladesh Limited

According to the table 3.4 (a) it is observed that BOC Bangladesh Limited is covering the market at a percentage of the total market, which is 64.44%. Highest market coverage was in the year 1993. Then it gradually dropped down, up to 1997. But for the expansion program it reached to 50.41%. But they can not getting the market at a percentage of how the market demand is growing. So one graph of this market coverage can make a prediction that how this can effect the future.



Graph 3.4 (1) a: Oxygen market coverage of BOC Bangladesh Limited

From the above data table and graph it is found that at present BOC Bangladesh Limited is presently covering only 44% of the market. This 44% is very small for the company like, BOC Bangladesh Limited. From the graphical trend and data table this also have identified that a large potential market is available where they can attempt.

3.5 Trends of demand for products offered by BOC Bangladesh Limited

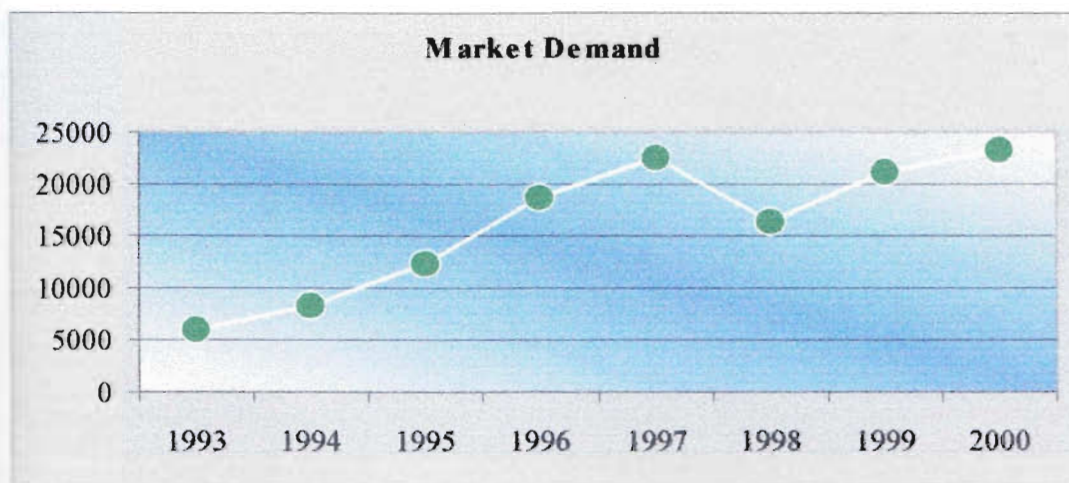
Oxygen is the prime product of BOC Bangladesh Limited. So the demand and its production is very effectual for the company.

Table 3.5 (1): Total Oxygen market demand

Unit of Measure	Year	Market Demand
000 M3	1993	6,020
	1994	8,320
	1995	12,340
	1996	18,626
	1997	22,480
	1998	16,320
	1999	21,220
	2000	23,320

Source: Marketing Conference 2000 of BOC Bangladesh Limited

Through the analysis of different data and information it has found that in 2000 BOC Bangladesh Limited produced only 44% of the total market. Rest 56% of the oxygen demand is covering by the competitors of the company. To take any decision regarding the expansion plan of the production is totally depending on how much market the company is looking for obtain. One graph is also shown here to get the proper direction of the market.



Graph 3.5 (1) a: Total Oxygen market demand

From above described table 3.5 (1) and the graph 3.5 (1) a showed above is clearly indicating the upward growing market demand for the oxygen of the country. So from this interpretation BOC can take the clear image of whether they should go for production expansion plan or not.

Same as the Oxygen gases it is also very important to observe the market trends for welding electrodes and dissolved acetylene.

For the dissolved acetylene market, BOC Bangladesh Limited solely obtaining the highest percentage of the market share than the competitors of BOC. So being the market leader of dissolve acetylene BOC should maintain this position to obtain the optimum profit out of this business sector.

Welding electrodes is another category where BOC Bangladesh Limited have the highest potential. Same as dissolve acetylene for electrodes business BOC Bangladesh Limited should maintain their business position as a continuation process of their improvement and business progress.

CHAPTER FOUR

**AN EVALUATION OF FINANCIAL PERFORMANCE
OF
BOC BANGLADESH LIMITED**

AN EVALUATION OF FINANCIAL PERFORMANCE OF BOC BANGLADESH LIMITED

4.0: Introduction

The major function of management is to maximize shareholder's value. It must take advantage of the firm's strengths and correct its weakness. Financial statements are like the report cards on companies' financial health, and financial statements analysis involves to make a diagnosis of the whole firm performance. This helps management identify deficiencies and then take actions to improve performance. This chapter tried to appraise the financial performance of BOC Bangladesh Limited.

"Divide and conquer" is the only practical strategy for presenting a complex field like financial management. This chapter explained at how the people could use financial data to analyse a firm's overall performance and assess its current financial standing. Understanding the past is a necessary prelude to contemplating the future.

We have all heard stories of financial whizzes, which can take a company's accounts apart and find its innermost secrets in financial ratios. The truth, however, is that financial ratios are no substitute for a crystal ball. They are just a convenient way to summarise large quantities of financial data and to compare firms' performances. Ratios help us to ask the right questions, they seldom answer them. However, the paper is going to focus on BOC Bangladesh Limited's financial performance for the last ten years with its growth rate.

To appraise the financial performance of BOC Bangladesh Limited eleven different financial factors were analysed in next parts of this chapter with the last ten years financial performances. For the same reason 12 key financial ratios of four categories were described and interpreted to provide a clear view of financial performance of BOC Bangladesh Limited. Different tables and graphs showed and analysed to justify all the analysis of this chapter.

4.1: Share capital of BOC Bangladesh Limited

Up to the year 1990 the authorised share capital of BOC Bangladesh Limited was 10,000,000 ordinary shares of Tk. 10 each. Total money value of this share capital is Tk. 100,000,000. In the year 1991 BOC Bangladesh Limited has increased share capital from 10,000,000 to 20,000,000 ordinary share of Tk. 10 each. Then the money value of this capital also increased to Tk. 200,000,000.

Table 4.1: Issued, subscribed and paid-up capital of BOC Bangladesh Limited

Year	Share capital	Growth (%)
1990	84,546	
1991	126,819	33.33
1992	126,819	0.00
1993	126,819	0.00
1994	126,819	0.00
1995	126,819	0.00
1996	126,819	0.00
1997	152,183	16.67
1998	152,183	0.00
1999	152,183	0.00
2000	152,183	0.00

(Source: Annual Report of BOC Bangladesh Limited)

Though up to year 1990, BOC Bangladesh Limited had the authorised share capital up to Tk. 100,000,000. But their issued, subscribed and paid-up capital was only 8,454,600 ordinary shares of Tk. 10 each. According to the information and data provided from year 1990 to 2000, in the year 1991 BOC Bangladesh Limited increased their authorised share capital up to 20,000,000 ordinary share of Tk. 10 each. At the same time they issued 4,227,300 “Bonus Share” of Tk. 10 each. That’s why the above data in table 4.1, is indicating 33.33% share capital increase in year 1991.

BOC Bangladesh Limited again issued bonus shares in the year 1997. This time they issued 2,536,380-bonus share in the proportion of one ordinary share for every five held. For this reason, in 1997 total issued, subscribed and paid-up capital increased to 15,213,800 ordinary share of Tk. 10 each. This issued capital increase raised their share capital growth rate at 16.67% from the previous year.

According to the data showed in above table 4.1, the highest growth in issued, subscribed and paid-up capital is 33.33% from the previous year. This raise occurred in year 1991.

4.2: Total fixed assets of BOC Bangladesh Limited

Table 4.2 (1): Fixed assets of BOC Bangladesh Limited

Year	Fixed Assets	Growth (%)
1990	221,591	
1991	211,204	-4.92
1992	279,943	24.55
1993	273,235	-2.46
1994	339,004	19.40
1995	704,027	51.85
1996	735,929	4.33
1997	763,728	3.64
1998	1,009,421	24.34
1999	1,100,734	8.30
2000	1,316,266	16.37

(Source: Annual Report of BOC Bangladesh Limited)

It is observed from table 4.2 (1) that during 1990 to 2000, every year fixed assets of BOC Bangladesh Limited has increased except 1991 and 1993. It is also observed from the table that asset has increased more than 20% in 1992, 1995 and 1998. The highest growth of fixed asset was in 1995, which is 51.85%. This year they commissioned a world-class welding electrodes plant at Rupganj.

Depreciation is charged on all fixed assets (other than freehold land or capital work in progress) on straight-line basis. The rates at which assets are depreciated per annum are given below:

Table 4.2(2): Rate of depreciation of fixed asset of BOC Bangladesh Limited

Particulars	Rate of Depreciation
Freehold Buildings and Long Leaseholds	2.5 %
Plant and Machinery	10.0 %
Cylinders	5.0 %
Motor Vehicles	20.0 %
Furniture, Fixtures and Equipment	10-20 %

Short Leaseholds are depreciated over term of the lease. Depreciation is charged for a full year of acquisition or capitalisation irrespective of the date when the related assets are put to use.

Due to depreciation method in every year the total fixed assets are declining from the list of fixed asset of BOC Bangladesh Limited. Another factor is to decline the fixed asset is selling of fixed asset, those are over from their useful life or accumulated depreciation goes more than its total cost. Gain or loss on disposal always goes to the income statement, so decrease in fixed asset is very common to BOC Bangladesh Limited, as they experienced from the year 1991 to the year 2000.

4.3: Total turnover of BOC Bangladesh Limited

Turnover comprises sales of the company and includes excise duty and development surcharge for the period applicable and excludes VAT for the remainder.

Table 4.3: Total turnover of BOC Bangladesh Limited

Year	Turnover	Growth (%)
1990	447,038	
1991	423,677	-5.51
1992	461,292	8.15
1993	473,846	2.65
1994	529,842	10.57
1995	604,454	12.34
1996	680,707	11.20
1997	754,586	9.79
1998	842,943	10.48
1999	1,021,890	17.51
2000	1,046,682	2.37

(Source: Annual Report of BOC Bangladesh Limited)

Due to political changes and the worst cyclone and tidal bore for 20 years BOC Bangladesh Limited faced only negative turnover growth in the year 1991. From the given table 4.3 it has observed that in every year during the time period of year 1990 to year 2000, every year turnover of BOC Bangladesh Limited has increased except year 1991. The main reason of this situation described before but some other severe reasons like, the severe flood in the northern districts affected some of the portion of that year. Though expected up-turn economy did not take place in 1992, but for some other development projects and rehabilitation programs BOC Bangladesh Limited became able to recover their turnover growth rate from negative to positive.

As the same scenario the total turnover growth rate of BOC Bangladesh Limited became smooth and steady. Though there was not same pace in the growth rate but they are still experiencing the same growth in their turnover amount in Taka.

Because of operating in an socio-economic environment more or less each and every factor of the society and economy affects the business of this company. These times poor law and order situation effected the business severely. This year the total turnover growth rate relapsed from 17.51 to 2.37. This extravagant fall affected the whole functions of the company. Some other reasons are involved here for this downturn of turnover. Downturn of ship breaking activities affected the turnover of the company. High prices of ship for piecemeal has reduced the number of ship cutting. Medical sales also had been traditionally volatile for the uncertainty related to the government tender process.

4.4: Operating expenses of BOC Bangladesh Limited

It is very common to rise of the operating expenses, but in many times it may inverse for different reasons like, cost control, disposal of sick listed units or programs, etc. To analyze the data in table 4.4 it has found that in different year different factor is involved to drop down the cost for that specific year. According to the table 4.4 it is also observed that in 1991, 1992, 1995 and 1999 total operating expenses has decreased. The highest drop down happened in 1995, which is 243.14% from the year 1994.

Table 4.4: Operating expenses of BOC Bangladesh Limited

Year	Operating exp.	Growth (%)
1990	426,618	
1991	401,267	-6.32
1992	363,867	-10.28
1993	368,996	1.39
1994	415,879	11.27
1995	121,197	-243.14
1996	143,832	15.74
1997	167,748	14.26
1998	200,265	16.24
1999	188,211	-6.40
2000	203,653	7.58

(Source: Annual Report of BOC Bangladesh Limited)

Business situation of year 1991 has described earlier points of this chapter. In this year BOC Bangladesh Limited locked some of their advertising activities for not having satisfactory output. At the same time the cost of sells were reduced for less sales. These were the reasons for having a negative growth rate in the operating expenses in the year 1991.

In the year 1992, another giant opportunity made company's operating expenses low. The tax charge for the year was reduced by the write back of over Tk. 19.1 million of provisions, made in earlier years and no longer necessary. This, along with the reduction of corporate income tax rates from 45% to 40%, announced in the Finance Act, 1992, resulted in post tax profits also reaching record levels of over Tk. 76.4 million, an improvement of 67% over the last year.

1995 as a business unique time, was very special for BOC Bangladesh Limited. Total sales of the company crossed to Tk. 600 million with a growth of 14% over the last year. But the company got reduction of the operating expenses for the profit subject to tax rose is as last year's interest income was mostly tax-free. This down sizing of the operating expenses made their total profit healthy and operating expenses low.

In the year 1999, for not having any restructuring cost, for having very low training program, controlled transportation expenses and not having any recorded conference total operating expenses reduced to 6.40% from the year 1998.

4.5: Net profit/Loss of BOC Bangladesh Limited

Net profit/loss is the heart of any business organization. So ultimate target of every business organization is to obtain the optimum profit. Real situation is something different from the business situation budgeted to attain. It is observed that in 1991, 1995 and in 1996 net profit of the company dropped down. Other years of the time series from 1990 to 2000 have positive growth in their net profit. The highest positive growth in profit occurred in 1992, which is 40.09%.

In 1991, sales dropped down by 5.5% and rising costs, profit before tax of BOC Bangladesh Limited dropped to Tk. 83,747,579 from Tk.105, 284,982. In the same year the tax charge increased to 12%, and for all these reasons ultimate result is 55.82% negative growth from 1990 in the profit account.

Table 4.5: Net profit/loss of BOC Bangladesh Limited

Year	Net Profit/Loss	Growth (%)
1990	71,285	
1991	45,748	-55.82
1992	76,361	40.09
1993	78,639	2.90
1994	91,609	14.16
1995	81,100	-12.96
1996	59,394	-36.55
1997	73,617	19.32
1998	118,545	37.90
1999	146,134	18.88
2000	203,324	28.13

(Source: Annual Report of BOC Bangladesh Limited)

Again in 1993, the tax rate has increased 35%. At the same time the company made more than 17% increased in their profit before tax. But for the higher tax rate the profit for appropriation was very less than the expectation.

In 1995, sales increased by 14%, but for heavy operating cost the operating profit loosed some of its major portion. Again for less interest and other income company loosed a portion of profit after tax. Though these are not the loss situation for the company but it is pitfall for the company to maintain the expanded business with the low return.

In the year 1996, the inauspicious time for the company continues for the payment of high interest charge at the same time no interest earnings, high cost of sales compared to the previous year, and for high operating expenses compare to the total turnover.

After 1996 profit of the company returned to the normal growth and that is still continuing.

4.6: Total asset per share of BOC Bangladesh Limited

Total Assets Per Share (APS) is usually calculated by total assets divided by the number of share outstanding. This ratio represents the total assets range for a particular share. From this ratio any investor will be able to visualize the asset worthiness of the share. From the given data in table 4.6 of this ratio information and its growth, is enough to provide the idea of asset expansion for each share of the holdings.

Table 4.6: Asset per share of BOC Bangladesh Limited

Year	APS	Growth (%)
1990	32.05	
1991	33.33	3.84
1992	43.13	22.72
1993	45.73	5.69
1994	43.20	-5.86
1995	49.02	11.87
1996	50.70	3.31
1997	44.09	-14.99
1998	48.08	8.30
1999	53.68	10.43
2000	63.04	14.85

(Source: Annual Report of BOC Bangladesh Limited)

According to the data and information of the assets per share table 4.6, it is indicating that except 1994 and 1997 every year of the time series have the positive growth rate in asset per share. The highest growth rate within this series experienced in 1992, which is 22.72%.

Total fixed assets are declining from the list of BOC Bangladesh Limited every year for depreciation and for disposal of fixed asset. Disposal of fixed asset happens after providing the service of its economical life. Gain or loss on disposal always goes to the income statement so decrease in fixed asset is very common to BOC Bangladesh Limited, as they experienced from the year 1991 to the year 2000.

In the year 1991, 1993, 1994, 1996 and 1998, company disposed a lot of their fixed and plant asset by depreciation and disposal of negative book valued assets. That's the reason for having very low or negative growth rate in their asset per share data in table 4.6.

Though the total business and profit margin fell drastically in year 1991, 1993, 1995, 1996, 1999 and 2000, but the growth rate of APS of the company was not dissatisfactory. Even if the growth was negative in some times, the value of the return was in an increasing motion.

4.7: Earning per share of BOC Bangladesh Limited

Total Earnings Per Share (EPS) is usually calculated by total net profit divided by the share outstanding. This ratio represents the total earnings range for a particular share. Analysis of this ratio will provide the present situation of company's share return.

Table 4.7: Earning per share of BOC Bangladesh Limited

Year	EPS	Growth (%)
1990	5.62	
1991	3.61	-55.68
1992	6.02	40.03
1993	6.20	2.90
1994	7.22	14.13
1995	6.39	-12.99
1996	4.68	-36.54
1997	4.84	3.31
1998	7.79	37.87
1999	9.60	18.85
2000	13.36	28.14

(Source: Annual Report of BOC Bangladesh Limited)

According to the table 4.7, it is observed that except 1991, 1995 and 1996 BOC Bangladesh Limited acquired positive growth in their earning per share ratios. The highest growth in earning per share was 40.03% identified in 1992.

In the year 1991, BOC Bangladesh Limited issued 4,227,300 Bonus Share of Tk. 10 each. For this reason, earning per share of BOC Bangladesh Limited dropped down 55.68%. In 1992, company managed to increase their earnings per share at a 40.03% through the progressive business attitude and effort.

Though the total business and profit margin fell drastically in year 1991, 1993, 1995, 1996, 1999 and 2000, the growth rate of EPS of company was satisfactory. Even though the growth was negative in some years, but the value of the return was continuously increasing.

The reasons for unfavorable business in 1995 and 1996 exceed the entire limit and showed negative growth from the previous years. In 1997, though BOC Bangladesh Limited, issued another 2,536,400 Bonus Share of Tk. 10 each but the EPS growth was positive for the prospective and confident business strategies. It will not be irrelevant to mention here that BOC Bangladesh Limited managed their profit and business in a way that they covered the negative growth rate of the previous two years and they also increased share capital by issuance process of Bonus Shares.

4.8: Dividend of BOC Bangladesh Limited

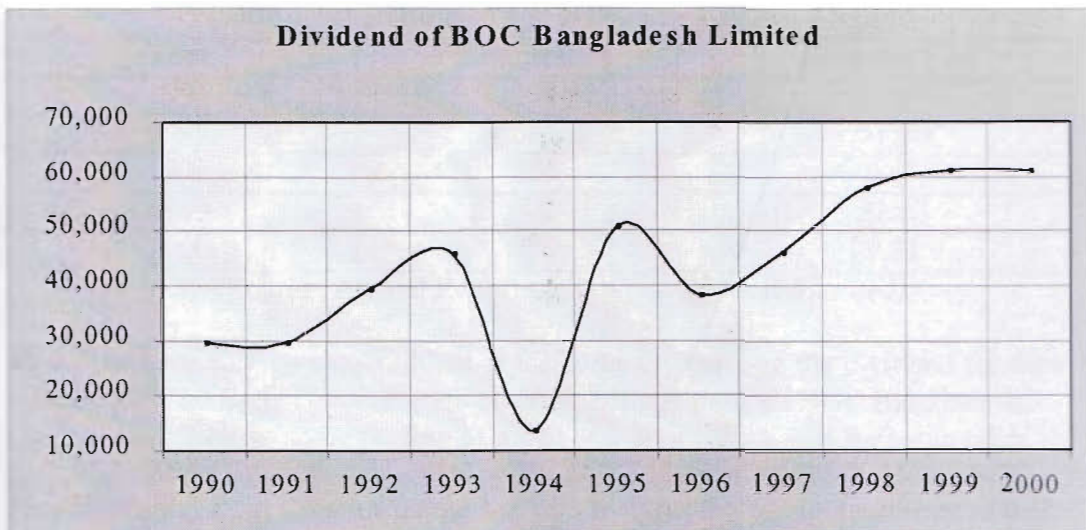
The amount is to pay to the investors for their one-year's investment is called dividend. So, the return reflects the business condition of the company. Usually dividend is provided from the total profit of the company.

Table 4.8: Dividend of BOC Bangladesh Limited

Year	Dividend	Growth (%)
1990	29,591	
1991	29,591	0.00
1992	39,314	24.73
1993	45,655	13.89
1994	123,649	63.08
1995	50,728	-143.75
1996	38,046	-33.33
1997	45,655	16.67
1998	57,829	21.05
1999	60,873	5.00
2000	60,873	0.00

(Source: Annual Report of BOC Bangladesh Limited)

Dividend some time reflects the business condition of the company. Data in table 4.8 is showing the total dividend of BOC Bangladesh Limited from the year 1990 to 2000. According to the provided information it is observed that except 1991, 1995, 1996 and 2000 growth rate of total dividend of BOC Bangladesh Limited has increased. The highest positive growth occurred in 1994, which was 63.08%. Again the highest negative growth -143.75% occurred in 1995.



Graph 4.8: Dividend of BOC Bangladesh Limited

From the data in table 4.8 and the graph 4.8 it is clear to visualize the business conditions and the return trends to the shareholders of BOC Bangladesh Limited.

4.9: Bonus Shares of BOC Bangladesh Limited

Table 4.9: Bonus shares of BOC Bangladesh Limited

Year	Bonus Share	Growth (%)
1991	42,273	
1997	25,364	-66.67

(Source: Annual Report of BOC Bangladesh Limited)

In the year 1991, authorized capital of BOC Bangladesh Limited increased from Tk. 100,000,000 to Tk. 200,000,000. They issued these bonus shares in the proportion of one ordinary share for every two held. For issuing these bonus shares the paid up capital of the company was increased from Tk. 84,546,000 to Tk. 126,819,000.

Again in the year 1997, BOC Bangladesh Limited declared one bonus share for the five ordinary shares holding. As a result of the issue of Bonus Shares, the Issued Share Capital of the company increased to Tk. 152,182,800 and this was managed by transferring Tk. 20,339,644 from Tax Holiday Reserve and the balance of Tk. 5,024,156 from Non-Distributable Special Reserve.

4.10: Remittances of BOC Bangladesh Limited

With the technological improvement of the company and the improvement pace of the whole world, BOC Bangladesh Limited is setting-up some important and sensitive equipment. For maintenance and technical support for imported different high tech set of equipment it is necessary to make some agreement with relevant companies, which requires foreign currency. That's why the total remittance of BOC Bangladesh Limited increasing rapidly. Table 4.10 is also providing the same indication.

Table 4.10: Remittance of BOC Bangladesh Limited

Year	Remittance	Growth (%)
1996	274	
1997	565	51.50
1998	605	6.61
1999	772	21.63
2000	857	9.92

(Source: Annual Report of BOC Bangladesh Limited)

There are some foreign shareholders of the company demand the dividend for their investment. The BOC Group Plc UK, the mother company of BOC Bangladesh Limited also requires some portion of profit and dividend. Again for some other consultancy fees consulting companies like, ANZ Investment Bank, Delhi, BOC Process Plants, Atlas Copco Comtec Inc. etc. requires the foreign currency as their payment.

The higher remittance growth of BOC Bangladesh Limited was 51.50% occurred in 1997.

4.11: Taxation of BOC Bangladesh Limited

Company tax is the largest part of any operating expenses. Data in table 4.11 is indicating the continuous growth from 1990 to 2000, except 1992, 1996, 1997 and 2000. The highest growth occurred in 1999, which was 50% from 1998. Again the highest negative growth rate -330.55% occurred in 1997.

Table 4.11: Taxation of BOC Bangladesh Limited

Year	Taxation	Growth (%)
1990	34,000	
1991	38,000	10.53
1992	29,380	-29.34
1993	45,600	35.57
1994	47,996	4.99
1995	52,345	8.31
1996	24,111	-117.10
1997	5,600	-330.55
1998	8,500	34.12
1999	17,000	50.00
2000	16,000	-6.25

(Source: Annual Report of BOC Bangladesh Limited)

In 1992, write back of total Tk. 19.1 million of the provision tax of earlier years and reduction of corporate tax from 45% to 40% made a negative growth of taxation for BOC Bangladesh Limited.

In 1994, total corporate tax rate reduced from 40% to 37.5%. That's why a small tax growth rate increased in this year, which is about to 5%.

In 1996 the effective rate of tax for the company fell because of the Tax Holiday status of a major source of income. Tax charges for that year were Tk. 24,111,000 against Tk. 52,345,000 of the year 1995. Again in the year 1996 effective tax rate lowered from the last year through the Tax Holiday Unit. In that year the charge dropped to Tk. 5,600,000 from Tk. 24,111,000 of the previous year.

Under the new fiscal regulation from the year 2000 the company was entitled to a 10% rebate on its corporate tax. That's why they experienced a negative growth of taxation.

4.12: Key Financial Ratio Analysis of BOC Bangladesh Limited

Liquidity Ratios

A *liquid asset* is one that can be easily converted to cash at a “fair market value”, and a firm’s “liquidity position” deals with this question: Will the firm be able to meet its current obligations? Will it have trouble satisfying those obligations? A full liquidity analysis requires the use of cash budgets, but by relating the amount of cash and other current assets to the firm’s current obligations, ratio analysis provides quick, easy-to-use measure of liquidity. Two commonly used liquidity ratios are discussed in this section.

Current ratio

The Current Ratio is calculated by dividing current assets by current liabilities. Current assets normally include cash, marketable securities, accounts receivable, short-term notes payable, current maturity of long-term debt, accrued income taxes and accrued expenses.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

If accompany starts getting into financial difficulty, it will begin paying its bills more slowly, borrowing from its bank and so on. Current liabilities then rise faster than current assets, the current ratio begins to fall and this spells trouble. Because the current ratio provides an indicator of the extent to which assets that will soon be converted to cash cover the claims of short-term creditors, it is a commonly used measure of liquidity.

Current ratios of BOC Bangladesh Limited are:

Table 4.12 (1): Current ratios of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Current ratio	2.45	2.83	2.76	2.02	0.80	0.83	0.80	0.74	0.69	0.76

(Source: Annual Report of BOC Bangladesh Limited)

According to the data in table 4.12 (1), It has found that current ratios of BOC Bangladesh Limited is gradually decreasing. Current ratios of the company are very few in numbers. The highest number was 2.83 in 1992 on the other hand in 1999 the lowest was 0.69.

Because of having less current assets compared to the current liabilities the current ratio is staying in low in number. Because of having less opportunity in their business attitude and strategy to keep fewer inventories, it is impossible to boost-up current ratio by using these elements. On the other hand BOC Bangladesh Limited committed to pay the 100 % tax and other charges. So taxation and other current liabilities are larger in number compare to the current assets. And that is the reason for very low

current ratio. According to the table 4.12 (1) it is clear that during 1991 to 1994 the current ratio were more than 2 but from 1995 to 2000 it has decreased to less than 1.

Low current ratio of BOC Bangladesh Limited is indicating low leverage condition of the company that might create panic among the investors. Because of having a good relation with the customers and investors by providing appropriate information to the right person, BOC Bangladesh Limited still doing their business with the customers and investors satisfaction. If BOC Bangladesh Limited does not use their current assets and current liabilities then the profitability may decrease.

Quick, or Acid test, ratio

The quick, or acid test, ratio is calculated by deducting inventories from current assets and then dividing the remainder by current liabilities. Inventories are typically the least liquid of a firm's current assets, so they are the assets on which losses are most likely to occur in the event of liquidation. Therefore, a measure of the firm's ability to pay off short-term obligations without having to liquidate inventories is important.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

The quick, or acid test, ratios of BOC Bangladesh Limited are:

Table 4.12 (2): Quick ratios of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Quick, or acid test	1.31	2.01	1.99	1.57	0.34	0.26	0.25	0.22	0.21	0.28

(Source: Annual Report of BOC Bangladesh Limited)

Table 4.12 (2) is indicating the low level of liquidity of BOC Bangladesh Limited. From the data in table 4.12 (2) It has found only in 1992 the quick ratio was more than 2, but from 1991 to 1994 the total acid test ratios were more than 1 but from 1995 to 2000 this ratio has decreased to less than 1. The lowest ratio was in 1998. which is 0.22.

It is clear that because of having fewer current assets compared to the current liabilities the current ratio stays few in number. And it is discussed that BOC Bangladesh Limited is committed to keep their inventory low to maintain the quality management. Where total current assets are low and then inventory become deducted from that asset group then it divided by the total current liability then it becomes lower than the current ratio.

Though the quick, or acid test, ratio of BOC Bangladesh Limited is indicating high risk associated with the investment and business relation but because of having appropriate information to the right person, BOC Bangladesh Limited still doing their business confidently.

Asset Management Ratios

Asset management ratios measure how effectively the firm is managing its assets. These ratios are designed to answer this question: Does the amount of each type of asset seem reasonable, too high, or too low in view of current and projected sales levels? Companies generally borrow when they acquire assets. If they have too many assets, their interest expenses will be too high, hence profits will be depressed. On the other hand, if assets are too low, profitable sales may be lost.

Inventory turnover

The *inventory turnover ratio* is defined as sales divided by inventories. Managers sometimes look at the rate at which companies turn over their inventories. A high inventory turnover is often regarded as a sign of efficiency. But there is nothing to jump into conclusion. It may simply indicate that the firm is living from hand to mouth.

$$\text{Inventory Turnover Ratio} = \frac{\text{Total Sales}}{\text{Inventories}}$$

Inventory Turnover ratios of BOC Bangladesh Limited are:

Table 4.12 (3): Inventory turnover ratios of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Inventory turnover	2.73	3.69	3.38	5.18	4.98	3.48	3.99	4.15	4.84	5.34

(Source: Annual Report of BOC Bangladesh Limited)

Inventory turnover ratios table 4.12 (3) is indicating the increasing rate of total inventory of the company. The highest turnover ratio was in the year 2000, which is 5.34, but the lowest was 2.73 in 1991.

Inventory Turnover of BOC Bangladesh Limited is moderate but increasing gradually. They are committed to keep their inventory low, for ensuring the profit and growth to their investors. Maintaining too many inventories is unproductive because excess inventory represents an investment with a low or zero rate of return. From the data in table it is clear that the inventory turnover of BOC Bangladesh Limited was inconsistent for the last 10 years.

From the year 1994 to 2000 (except 1996 and 1997) their inventory turnover was high, what is really very devastating for the profit margin. Though BOC Bangladesh Limited is reputed for their previous business record, but they should consider this rising inventory.

Days sales outstanding (DSO)

Days sales outstanding (DSO), also called the *average collection period* (ACP), is used to appraise accounts receivable, and it is calculated by dividing average daily sales into accounts receivables to find the number of days sales that are tied up in receivables. Thus, the DSO represents the average length of time that the firm must wait after making a sale before receiving cash.

$$\text{Days Sales Outstanding} = \frac{\text{Receivables}}{\text{Annual Sales} / 360}$$

The DSO can also be evaluated by comparison with the terms on which the firm sells its goods. If the trend in DSO over the past few years has been rising, but the credit policy has been changed, this would be even stronger evidence that steps should be taken to expedite the collection of accounts receivable.

Days sales outstanding (DSO) of BOC Bangladesh Limited are:

Table 4.12 (4): Days sales outstanding of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Days sales outstanding	66	52	66	54	53	48	11	13	12	13

(Source: Annual Report of BOC Bangladesh Limited)

From the table 4.12 (4), It has found that the days sales outstanding was more than 50 up to the year 1995 from 1991. Though it came to less than 50 from the year 1996, but it came less than 15 days from 1997. The highest days sales outstanding was in 1991 and 1993, which is 66 days. On the other hand the lowest days sales outstanding was only 11 days in 1997.

Days sales outstanding (DSO) of BOC Bangladesh Limited is moving for the better days. BOC always tries to keep their accounts receivable low to ensure the liquidity and business risk low. BOC Bangladesh Limited committed to keep the profit and its growth ensured for the business confidence of their customers and the investors. Maintaining too many account receivables for long time is risky as well as unproductive because excess account receivables increase the business risk and liquidity risk. In the long run it might create an investment with a low or zero rate of return.

Days sales outstanding table 4.12 (4) of BOC Bangladesh Limited is indicating, that account receivables of BOC Bangladesh Limited was high until the year of 1996. Such a high Days sales outstanding might make some owe for the company.

From the year 1997 days sales outstanding came into normal position but their inventory turnover was high, that was very devastating for the profit margin of the company. So, BOC Bangladesh Limited should consider its all the factors related to their profit margin.

Fixed assets turnover

The *fixed assets turnover ratio* measures how effectively the firm uses its plant and equipment. It is the ratio of sales to net fixed assets, or the amount of sales generated by each dollar of fixed assets.

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Total Sales}}{\text{Total Fixed Asset}}$$

A major potential problem can exist when the fixed assets turnover ratio is used to compare different firms. Recall from accounting that most balance sheet values reflect historical costs. Inflation has caused the values of many assets that were purchased in the past to be seriously understated. Furthermore, older assets have been depreciated by a greater amount, regardless of the actual impact of age on value. Therefore, if anybody were comparing an old firm, which had acquired many of its assets only recently, they probably would find that the old firm had a higher fixed assets turnover ratio. However, this would be more reflective of the inability of the accountants to deal with fixed asset values than of any inefficiency on the part of the new firm. The accounting profession is trying to devise ways of making financial statements reflects current value basis, this would eliminate the problem of comparisons, but at the moment, the problem still exists. Since financial analysts typically do not have the data necessary to make adjustments, they must simply recognize that a problem may exist and deal with it judgmentally.

Fixed Assets Turnover ratios of BOC Bangladesh Limited are:

Table 4.12 (5): Fixed assets turnover of BOC Bangladesh Limited

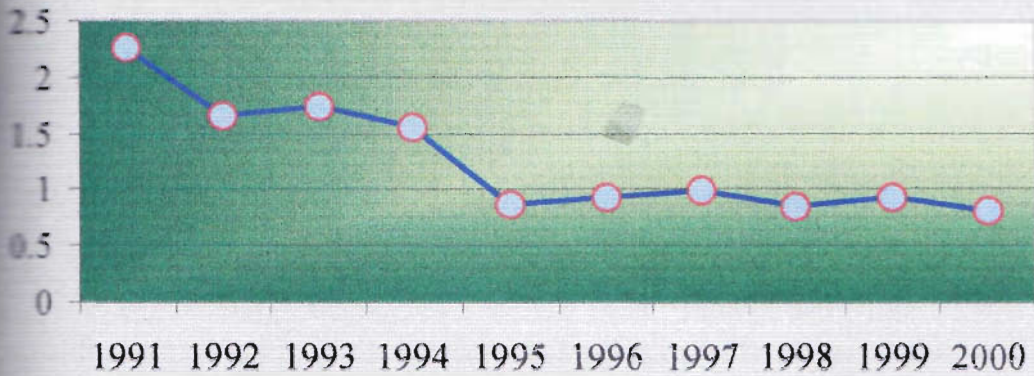
Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Fixed assets turnover	2.26	1.65	1.73	1.56	0.86	0.92	0.99	0.84	0.93	0.80

(Source: Annual Report of BOC Bangladesh Limited)

According to the information showed in the table 4.12 (5) of BOC Bangladesh Limited, from the year 1991 to 2000, it is clear that fixed assets turnover ratio is gradually decreasing. It is observed that during 1991 to 1994 this ratio was more than 1.5. But from 1995 this ratio has started to decrease. Now it is less than 1, which is not expectable for any business organization.

The highest fixed asset turnover was in 1991, which is 2.26. On the other hand the lowest ratio was in 2000 and the number was 0.80. Now one graph can be drawn here to show the trends.

Fixed Asset Turnover Ratio of BOC Bangladesh Limited



Graph 4.12 (5): Fixed asset turnover of BOC Bangladesh Limited

From the data in table 4.12 (5) and the graph 4.12 (5), it is clear to visualize the fixed asset turnover position of BOC Bangladesh Limited. It is down ward slopping. So the company should take steps to get the better output for the company.

If BOC Bangladesh Limited does not use fixed assets effectively then the profitability of the company may decrease.

Total assets turnover

The final asset management ratio, the *total asset turnover ratio*, measures the turnover of all of the firm's assets, and it is calculated by dividing sales by total assets.

$$\text{Total Asset Turnover Ratio} = \frac{\text{Total Sales}}{\text{Total Asset}}$$

Total Assets Turnover ratios of BOC Bangladesh Limited are:

Table 4.12 (6): Total assets turnover of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total assets turnover	0.81	0.65	0.61	0.67	0.66	0.67	0.73	0.65	0.73	0.64

(Source: Annual Report of BOC Bangladesh Limited)

The data in table 4.12 (6) is indicating that the company is not generating a sufficient volume of business given its total asset investment. Sales should be increased, some assets should be disposed, or a combination of these steps should be taken.

According to the table 4.12 (6) it is clear that the highest turnover was in 1991 and the number was 0.81. On the other hand the lowest turnover was 0.61 occurred in 1993. Recall that fixed assets turnover of BOC Bangladesh Limited for the initial years of the table was low but more than one, but total assets turnover is weaker than the fixed asset turnover ratio. But one interesting situation should be considered that total assets turnover is still stable compare to the time period from 1991 to 2000.

Analysis of the fixed assets turnover and total assets turnover is indicating that one problem is lying with current assets of BOC Bangladesh Limited. Required examination of the company's current assets turnover ratio will confirm this observation.

Debt Management Ratios

The extent to which a firm uses debt financing, or *financial leverage*, has three important implications:

1. By raising funds through debt, stockholders can control a firm with a limited investment.
2. Creditors look to the equity, or owner-supplied funds, to provide a margin of safety, so if the risks of the enterprise are borne mainly by its creditors.
3. If the firm earns more on investments financed with borrowed funds than it pays in interest, the rate of return on the owners' capital is magnified, or "leveraged".

Firms with relatively high debt ratios have higher expected returns when the economy is normal, but they are exposed to risk of loss when the economy goes into a recession. Firms with low debt ratios are less risky, but they also forego the opportunity to leverage up their return on equity. The prospects of high returns are desirable, but investors are averse to risk. Therefore, decisions about the use of debt require firms to balance higher expected returns against increased risk. Determining the optimal amount of debt for a given firm is a complicated process. However, analysts use two key ratios when they analyze financial statements:

- (a) They determine the extent to which borrowed funds have been used to finance assets (the *debt ratio*), and
- (b) They determine the number of times fixed charges are covered by operating profits (the *times interest earned ratio*). These two sets of ratios are complementary, so analysts use both types.

Total debt to total assets

The ratio of total debt to total assets, generally called the *debt ratio*, measures the percentage of funds provided by creditors. Total debt includes both current liabilities and long-term debt. Creditors prefer low debt ratios, because the lower the ratio, the greater the cushion against creditors' losses in the event of liquidation. Stockholders, on the other hand, can benefit from leverage because it magnifies earnings.

$$\text{Total debt to Total Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Asset}}$$

Total Debt to Total Asset ratios of BOC Bangladesh Limited are:

Table 4.12 (7): Total debt to total assets ratio of BOC Bangladesh Limited

Year	1998	1999	2000
Total debt to total asset	13%	11%	19%

(Source: Annual Report of BOC Bangladesh Limited)

There wasn't any bank loan for BOC Bangladesh Limited before the year 1997, so that they don't have any debt to asset ratio before the year 1998.

According to the data in table 4.12 (7), It has found that total debt to total asset ratio of BOC Bangladesh Limited is very low. The highest debt was in 2000, which is 19% of their total assets. On the other hand they had lowest debt of 11% of their total assets.

Information is indicating that total creditors of BOC Bangladesh Limited is very few. It will be very easy for them to get more credit from the investors and the creditors. Because of having a good credit record makes their business more flourish. So a small percentage of the their equity is coming from debt, which is indicating the controlled leveraged financial performance of the company.

Times interest earned

The *times-interest-earned* (TIE) ratio is determined by dividing earnings before interest and taxes by the interest charge.

$$\text{Times Interest Earned Ratio} = \frac{\text{Earnings before Interest and Taxes}}{\text{Interest Charge}}$$

The TIE ratio measures the extent to which operating income can decline before the firm is unable to meet its annual interest costs. Failure to meet this obligation can bring legal action by the firm's creditors, possibly resulting in bankruptcy.

Times Interest Earned ratios of BOC Bangladesh Limited are:

Table 4.12 (8): Times interest earned ratio of BOC Bangladesh Limited

Year	1996	1997	1998	1999	2000
Times interest earned	8.92	5.74	6.70	6.38	9.57

(Source: Annual Report of BOC Bangladesh Limited)

BOC Bangladesh Limited has been paying different interests for their different business creditors from the year 1996, so that they don't have any times-interest ratio before the year 1996.

According to the data in table 4.12 (8), times-interest ratio of BOC Bangladesh Limited is indicating that total earnings of the company is covering more than five to eight times of their total interest payment. Therefore, the TIE ratio reinforces the conclusion based on the debt ratio that BOC Bangladesh Limited would have plenty of opportunity to take credit from the financial institutions in case of their emergency.

The regular interest payment is a hurdle that companies must keep jumping if they are to avoid default. The times-interest-earned ratio measures how much clear air there is between hurdle and hurdler.

Profitability Ratios

Profitability is the net result of a number of policies and decisions. The ratios examined thus far provide some information about the way that the firm is operating, but the profitability ratios show the combined effects of liquidity, asset management, and debt management on operating results.

Profit margin on sales

The *Profit margin on Sales*, often just called the profit margin, is calculated by dividing net income by sales, and it gives the profit per dollar of sales.

$$\text{Profit Margin on Sales} = \frac{\text{Net Income}}{\text{Sales}}$$

Profit margin on Sales (%) of BOC Bangladesh Limited are:

Table 4.12 (9): Profit margin on sales of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Profit margin on sales	10.80	16.55	16.60	17.29	13.42	8.73	9.76	14.06	14.32	19.46

(Source: Annual Report of BOC Bangladesh Limited)

Lots of fluctuation is shown in the data and information of the profit margin on sales table 4.12 (9) of BOC Bangladesh Limited. According to the data table 4.12 (i), it is easy to get a clear picture about the company and the nature of its business.

According to the table 4.12 (9) it has found that except 1996 and 1997 during the time period 1991 to 2000, the profit margin was more than 10%. The growth of the profit margin within this time period was stable, which is also indicating the growth of sales and net income. The highest profit margin was in 1994, which is 17.29%. On the other hand the lowest profit margin was in 1996, the amount was 8.73%.

To justify 1996 and 1997, it has to be explained that bad profit margin attained for less sales and income for the company. In those years not only the lower sales but also for the increasing cost and other business factors, BOC Bangladesh Limited made less than 10% of profit margin on their sales.

Basic earnings power (BEP)

The *basic earnings power* (BEP) ratio is calculated by dividing earnings before interest and taxes (EBIT) by total assets.

$$\text{Basic Earnings Power} = \frac{\text{Earnings before Interest and Taxes}}{\text{Total Assets}}$$

The ratio shows the raw earnings power of the firms' assets, before the influence of taxes and leverage, and it is useful for comparing firms with different tax situations and different degrees of financial leverage.

Basic earnings power ratio (%) of BOC Bangladesh Limited are:

Table 4.12 (10): Basic earnings power of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Basic earnings power ratio	15.04	15.65	16.90	18.49	15.37	9.68	9.71	11.51	13.79	15.04

(Source: Annual Report of BOC Bangladesh Limited)

According to the data table 4.12 (10), It has found that except 1996 and 1997, the basic earning power of BOC Bangladesh Limited was satisfactory. The highest power was 18.49% in the year 1997. On the other hand the lowest power was 9.68% of the total asset in the year 1996.

Because of critical business condition and lowest sales of the years 1996 and 1997, these two years basic earnings power ratio is not satisfactory. But the satisfactory news is they can recover their power from 1998 again.

Return on assets (ROA)

The ratio of net income to total assets measures the *return on total assets* (ROA) after interest and taxes.

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

Return on Total Assets (ROA) (%) of BOC Bangladesh Limited are:

Table 4.12 (11): Return on assets of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Return on assets	7.81	10.74	10.16	11.53	8.87	5.80	7.08	9.14	10.41	12.48

(Source: Annual Report of BOC Bangladesh Limited)

According to the table 4.12 (11) it has found that the highest return on asset was 12.48% in the year 2000. On the other hand the lowest return on asset was 5.80% in the year 1996. So, it is clear that except two or three years during the time period from 1991 to 2000, condition of total return on assets was satisfactory. This return results from the company's basic earning power plus its lower-average use of debt, both of which cause its net income up to the present condition. This ratio is often called the return on assets.

It is natural for firms to compare the return that they are earnings with the opportunity cost of capital. All firms would like to earn a higher return on assets, but their ability to do so is limited by competition. If the expected return on assets is fixed by competition, firms face a trade-off between the sales-to-assets ratio and the profit margin.

Return on common equity (ROE)

The ratio of net income to common equity measures the *return on common equity (ROE)*, or the rate of return on stockholders' investment.

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Total Common Equity}}$$

Return on Common Equity (ROE) (%) of BOC Bangladesh Limited are:

Table 4.12 (12): Return on equity of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Return on common equity	10.82	13.96	13.56	16.72	13.05	9.24	10.97	16.20	17.90	21.21

(Source: Annual Report of BOC Bangladesh Limited)

According to the data in table 4.12 (12) it has found that, except 1996 return on equity of BOC Bangladesh Limited was more than 10%. The highest return was 21.21% in the year 2000. On the other hand in 1996 the return was 9.24, which is the lowest return during 1991 to 2000.

The ultimate function of the management is to maximize the profit for the shareholders, is properly maintained by the management of BOC Bangladesh Limited. The return to the common equity was continuously increasing and the growth rate was also satisfactory during the time period 1991 to 2000.

The reason for the growth and success showed in the return sector that is considering the continuous effort and positive care to the shareholders and to all the concern peoples associated with BOC Bangladesh Limited.

CHAPTER FIVE

**AN EVALUATION OF MARKETING PERFORMANCE
OF
BOC BANGLADESH LIMITED**

AN EVALUATION OF MARKETING PERFORMANCE OF BOC BANGLADESH LIMITED

5.0: Introduction

Marketing performance is a great factor to know about any organization. All organisations depend on their marketing performance to survive in the market. As usual BOC Bangladesh also depends on their marketing division like anything. Marketing performance of the products they usually offer to the customers is the key factor to make the company survive and to make sure the company profit running.

That's why the researcher try to appraise the marketing performance of BOC Bangladesh Limited in this chapter. For this reasons here the customer segment, product-wise sales volume, sales promotion tools, distribution channels and most prospective sectors will be discussing in the next points of this chapter.

5.1: Total Customer Segment of BOC Bangladesh Limited

BOC Bangladesh Limited is an ancient company in our history. They have been doing business in this geographical location from the British India time period. After the liberation war of 1971, they became registered in Bangladesh under it's own identity in 1973. They served different customer segments from the starting of their business in Bangladesh. At present they have seven customer segments in to their list of customer nature. These are as follows.

- ✓ **Two kinds of Resellers:** These two resellers are for welding electrodes and another is for gases. Gases resellers often called as gas agents.
- ✓ **Boat builders:** This customer segment involved into building boats and ships.
- ✓ **Institutional buyers:** Different types of organisation are included in this segment. Pharmaceutical, Private organisation, Project customer, Jute industry, Railway, Paper mill, Airlines, Lamp industry, Defence, Govt. organisation, Fertilizer factory, Sugar mill, Beverage industry, Cement factory, Power generation, Live stock, Cotton mill, Chemical industry, Food processing Fisheries, Refinery, Gas field, Dairy, Training institution, Tea garden, different process plants and Traders are included in this institutional buyers segment.
- ✓ **Three types of job welders:** These job welders are divided into three segments according to their three different working fields. These working fields are light fabricator, light fabricator and works and workshops.
- ✓ **Retailers:** This customers of BOC Bangladesh Limited are purchasing product from resellers and resell those to the end-users.

- ✓ **Re-rolling mills:** This customer segment purchase gases and welding electrodes in bulk amount to cut the ship scarps.
- ✓ **Scarp cutters:** These customers are mainly contractors and ship breakers. They cut ships and sell the scarps to the Re-rolling mills.

These eight groups of customers are purchasing BOC products and getting the better service to make the way for providing the better services to the customers.

5.2: Product-Wise Sales Volume of BOC Bangladesh Limited

This part of the report has identified that all the products, BOC Bangladesh Limited is covering in their product list are divided into four segment. For this reason company shows their turnover according to these four segments. These segments are: ASU gases, Dissolve Acetylene, Welding Electrodes and others. The segment others is including medical and industrial equipment, imported gases, etc. Turnover comprises sales of the company and excludes VAT (Value Added Taxes).

Table 5.2 (1): ASU gases turnover of BOC Bangladesh Limited

Unit of Measure	Year	ASU Gases Turnover	Growth (%)
' 000 Tk.	1995	151,667	
	1996	160,925	5.75
	1997	169,086	4.83
	1998	184,792	8.50
	1999	212,039	12.85
	2000	223,400	5.09

Source: Annual Report of BOC Bangladesh Limited

ASU refers to “Air Separating Unit”, by which BOC Bangladesh Limited producing mainly Oxygen and Nitrogen from the Cryogenic Environment. They also produce very small amount of Argon gas. Other mixed gases are supplying to support the customer’s demand and order for that particular gas. Though turnover information is required from 1991 but due to unavailability of segment-wise turnover information, this analysis deals the information from 1995 to 2000.

According to the data table 5.2 (1) it is observed that from 1995 to 2000, every year ASU gases turnover has increased. Highest growth 12.85% occurred in 1999.

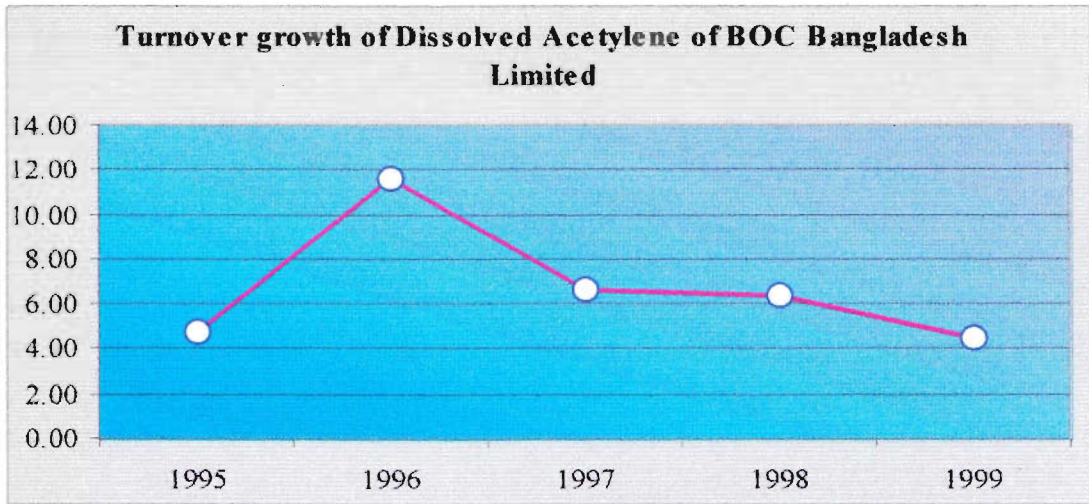
Table 5.2 (2): Dissolve Acetylene turnover of BOC Bangladesh Limited

Unit of Measure	Year	Dissolved Acetylene Turnover	Growth (%)
' 000 Tk.	1995	75,205	
	1996	78,972	4.77
	1997	89,316	11.58
	1998	95,681	6.65
	1999	102,217	6.39
	2000	107,043	4.51

Source: Annual Report of BOC Bangladesh Limited

The researcher has found the total turnover information for Dissolved Acetylene from the year 1995 till the year 2000. According to the available information It has found that from the year 1995 to the year 2000 the highest growth of turnover experienced in the year 1997, which is 11.58 % from the previous year. Though the turnover increased in every year but from the year 1998 to 2000 percentage of turnover change, dived at a continuous negative percentage.

According to the table 5.2 (2) it is identified that from the year 1995 to 2000, every year total turnover of Dissolve Acetylene has increased. Highest growth rate 11.58% occurred in 1997. Again from the data table if a graph can be drawn then the trends of the turnover will show the negative slope.



Graph 5.2 (2) a: Dissolve Acetylene growth rate of BOC Bangladesh Limited

From the table 5.2 (2) and the graph 5.2 (2) (a) showed above, the present trend of turnover growth rate of Dissolve Acetylene requires the effort that can open up the growth for the company.

Table 5.2 (3): Welding Electrodes turnover of BOC Bangladesh Limited

Unit of Measure	Year	Welding Electrodes Turnover	Growth (%)
' 000 Tk.	1995	211,986	
	1996	296,735	28.56
	1997	334,805	11.37
	1998	369,683	9.43
	1999	452,227	18.25
	2000	533,568	15.24

Source: Annual Report of BOC Bangladesh Limited

Welding Electrodes are using to join the ironic or metallic items. There are 8 (eight) different Welding Electrodes category according to their weight, size, purpose and capacity. Within these different types of welding electrodes the highest selling electrode brand is “Ferrospeed”, which is mild steel electrodes category.

According to the data table 5.2 (3) it is observed that from year 1995 to 2000, every year total welding electrodes turnover has increased. Highest growth rate was 28.56% of the year 1996. Though there was down curve in turnover growth rate in 1997 and 1998 based on 1996, but again it started to climb from 1999.

Table 5.2 (4): Other products turnover of BOC Bangladesh Limited

Unit of Measure	Year	Other Products Turnover	Growth (%)
' 000 Tk.	1995	165,596	
	1996	144,075	-14.94
	1997	161,379	10.72
	1998	192,943	16.36
	1999	255,357	24.44
	2000	182,671	-39.79

Source: Annual Report of BOC Bangladesh Limited

Other products of BOC Bangladesh Limited includes the entire Medical and Welding equipment, medical pipeline, imported gases etc. A number of medical equipment is trading by BOC Bangladesh Limited. For this equipment BOC Bangladesh Limited have the competitive advantage over their competitors. Up to some extent these competitive advantages is considering absolute advantage in this country.

According to the table 5.2 (4) it is observed that from 1995 to 2000, except 1996 and 2000, in every year growth of other product turnover has increased. Highest positive growth was experienced in 1997, which is 24.44%. On the other hand highest negative growth -39.79% experienced in 2000.

So far among all the market of BOC Bangladesh Limited, this market is highly volatile. The reason behind this comment is, It has found that in 1996 and in 2000 they experienced negative growth of turnover. The year from 1997 was really very nice to them for continuous rise in their total turnover in this category. But the reason for scarring the scenario is the turnover fall in the year 2000. The rises of turnover percentage change of the year 1997 provoked in the year 2000 again for the political unrest and continuous down turn of the law and policy. Due to less development of the economy, sales and development program is health sector was abounded in these years. So that the growth of turnover from this sector was lower than the previous years.

5.3: Sales Promotion Tools of BOC Bangladesh Limited

Promotion is the process of presenting messages intended to help sell a product or services. The type and direction of messages and the method of presentation may be extremely diverse, depending on the company, product and the culture of operation. BOC Bangladesh Limited promoting their products in to the market in a different techniques. Sales promotion and its tools of BOC are playing a great role in to the market. BOC Bangladesh Limited usually use the following tools to promote their product in to the market.

- ✓ **Customer visit:** There are 24 BOC Bangladesh Limited sales centre through out the country. Every sales centre has one in-charge customer relation manager or officer. The prime responsibility of that manager or officer is to promote the product effectively and efficiently. One of the parts of his responsibility is to visit customers three times in a year. This visit continues up to the end users. During the time of their visit they provide all the relevant information about their products. But during the visit these BOC representatives used to visit all the customers and competitors customers also. They provide necessary information to the customers that how they can get the best result out of their effort.
- ✓ **Gifts:** BOC representatives distribute gift to during their customer visit. These gifts include year calendar, cap, measuring tape, tester, moneybag, etc. Calendar is fixed for every year. At the first of the year they distribute these calendar to the end users. Rest of the gifts distributes other times of the year and gift varies on company profit and decision.
- ✓ **Yearly conference for the welding resellers:** In every year BOC Bangladesh Limited arrange a yearly conference for the welding resellers. During this conference all the welding electrodes reseller joins there for whole day. They share all the experiences they gathered from the whole year sales. These resellers receive their yearly discount from the company. They also entitled with lunch and other facilities for that day. From this conference company also get some of the idea about the market and the business environment.

These are the sales promotion tools BOC Bangladesh Limited is using for sales and market coverage.

5.4: Distribution Channel of BOC Bangladesh Limited

A Company may accurately assess market potential, design products or services for that market, and promote to probable consumers. However, it will have little likelihood of reaching its sales potential if the goods or services are not conveniently available to consumers. One aspects of this problem is getting goods to where people want to buy them. For example, does a man prefer to buy hair dressing in a grocery store, barber shop, drugstore, or some other type of outlet?

Distribution is the course, physical path or legal title that goods take between production and consumption. For marketing a product, a company must decide on the method of distribution among its condition as well as the method within the industry where the final sale occurs. Distribution channel is one of the major key role players of the distribution process.

BOC Bangladesh Limited is maintaining a well-regulated distribution channel to cover their target market. One chart is needed to show the distribution channel of BOC Bangladesh Limited.

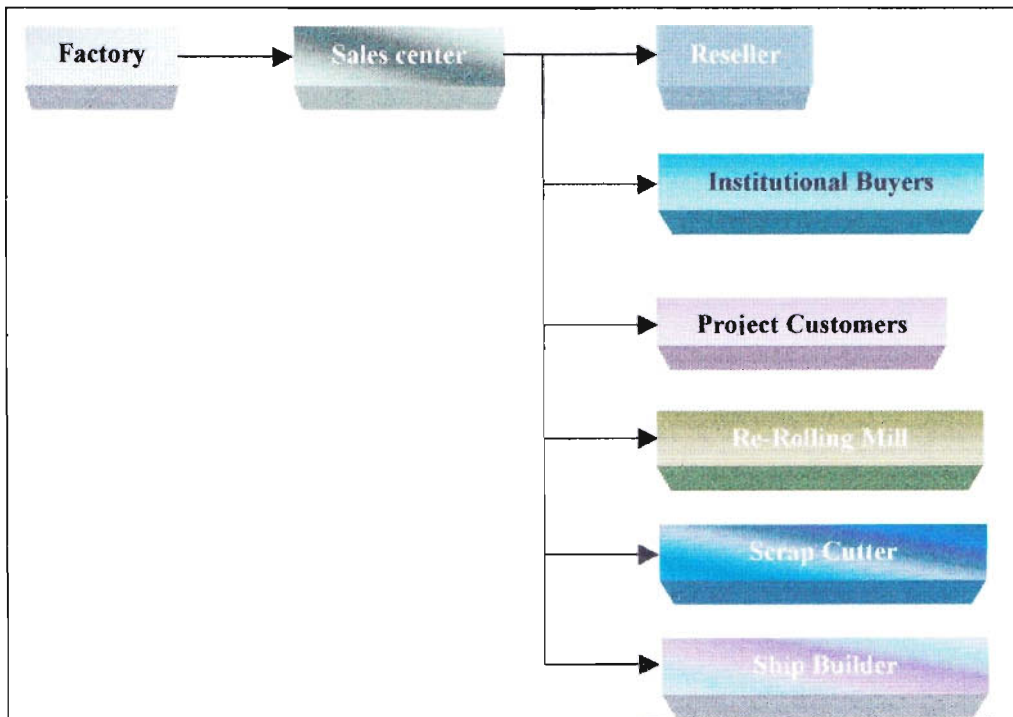


Chart 5.4: Distribution Channel of BOC Bangladesh Limited

According to the chart 5.4, distribution channel of BOC Bangladesh Limited, It can be described that all the products are coming to the sales centre from the factory. From the sales centre all the resellers are purchasing their required products. These resellers are divided into two groups; these are gas resellers and welding electrode resellers.

All the institutional buyers are getting some priority for their purpose. For these types of customers BOC Bangladesh Limited have some regulations to reach the required products to the customer end. Project customers are always getting some facilities like, product carriage to their site. But every facility depends on types of product and the amount of the product.

Re-Rolling mills are cutting scrap by using oxygen and then reproduce iron metallic manufacturing items that can be used for engineering of different construction. Re-rolling mills are purchasing their required gases and welding electrodes from the agent of BOC Bangladesh Limited or from the sales centre of BOC Bangladesh Limited. Company also carries the products for the Re-rolling mills when it required or the mill is considering as the specific customers.

Scrap cutters are basically cutting ships or the scrap for the Re-rolling mills. So also need bulk amount of gases. That's why in Chittagong they are getting the liquid oxygen from the company. In this case company is responsible to make the product available to the customers. Ship builders are involved making ships and boats. They also need bulk amount of oxygen and welding electrodes. So the scenario of Chittagong is same for these Ship builders also. They are also getting the liquid oxygen from the company. This does not mean that they are not getting the oxygen cylinders from the company. But for the convenience of the customers BOC Bangladesh Limited provide the liquid oxygen to the customer end.

Other retailers are getting their product from the resellers. And end users other than the chart showed above are purchasing their required product from the retailers.

From the above discussion it is clear that BOC Bangladesh Limited always tries to maintain the product availability for their customers.

5.5: Most Prospective Sectors of BOC Bangladesh Limited

Customers are using BOC products for different purposes of different sectors. All the sectors are not highly prospective, but contributing a margin to the company. So, to make sure the product availability for the future demand it is required to identify the most prospective sectors for their business. Another reason for finding out the prospective sectors is strategic planning for those sectors. From different trends it has found that the most prospective sectors for BOC Bangladesh Limited are as follows.

- ✓ **Shrimp processing for export:** Shrimp processing sector for export only required liquid nitrogen. For this sector prospective market is 48 million litres per year.
- ✓ **Frozen / Chilled foods transporting / vending:** Frozen foods exporters and liquid milk product suppliers are the customer segment for this sector. Required gas is CO₂ and the prospect is 1000 MT per year.
- ✓ **Fire potential factories:** Focused market for this product segment is garments, textile, mills ferry and other factories. Prospective market for this segment is 200 MT CO₂ per year.
- ✓ **Food grain storing:** This sector is focusing only Food departments of Bangladesh and the prospective market for this sector is 450 MT CO₂ per year.
- ✓ **Beverage:** All the beverage industries are the focused customer for this segment. At present total market of this sector is 350 MT CO₂ per year.
- ✓ **Different project customers:** Project customers are one of the prime customers of the company. Mostly they use oxygen and nitrogen for their different purposes. At present running projects are as follows.
 - 360 MW Power Plant at Haripur
 - Bhairab Ashuganj Bridge
 - BD-China Friendship Bridge Gabkhan
 - 210 MW Power Plant at Shidhirganj
 - GRC Project at Kushtia
 - Bororpukuria Coal Mine at Dinajpur
 - Doarika-Shikarpur Bridge

Some other projects will be started in near future. The list of future projects as follows.

- Pakshey Bridge at Isswardi
- 450 MW Power Plant at Meghna Ghat
- 2nd Shittalakra Bridge
- 2nd Meghna Bridge
- Sayedabad Water Treatment Plant
- Gas pipe line from Asuganj to Rongpur
- Asian highway
- Lafarge cement Factory at Sylhet.

These are the most prospective sectors and projects of BOC Bangladesh Limited. So BOC should have sufficient plan and policy to support any upcoming demand that can be a cash cow project for the company.

CHAPTER SIX

TO IDENTIFY THE PROBLEMS OF BOC BANGLADESH LIMITED

IDENTIFYING PROBLEMS OF BOC BANGLADESH LIMITED

6.0: Introduction

Problems of BOC Bangladesh Limited may be classified by into two different parts. These are

- Part A: Problems relating to the organization, and**
- Part B: Problems relating to the customers.**

Two different surveys have conducted to identify the problems of BOC Bangladesh Limited. One is surveying the management staffs of BOC Bangladesh Limited and the second one is surveying the customers of BOC Bangladesh Limited. For the customer survey part researcher had to visit the highest selling sales center of BOC Bangladesh Limited. The location of this sales center is Postogola. During the visit of that sales center, target was to find out the market condition and test the customer's satisfaction level. To justify this part of the report, researcher acquired vast knowledge about the business process of BOC Bangladesh Limited and all the ways, how the company is serving their customers. From the learning process, it has found that there are three types of customers are coming to this sales center. Product selling processes for different customers are also different. Types of customer segment of Postogola Sales Center are described in below.

i. Resellers of welding electrodes

If resellers order for more than 50 packets of welding electrodes, they don't need to come to the sales center. In this case a pick-up van is using to send those ordered product to the customer end. Then customers need to come to the sales center only for the payment procedures. They also have the choice to provide the bank draft or the check to the company as payment against their purchase. These customers never face the problem of queue for long time. If these customers order for less then 50 packets then they has to come to the sales center and need to get their product by their selves. But still they don't need to wait for long time. Actually the only problem regarding to these customers is providing the ordered product to the customer-end. There is only one pick-van to complete all these tasks. The total area for this sales center is Demra, Jatrabari, Jurain, Postogola, Shampur, Pagla and Fatullah. Another part of this location is from Postogola to Maowa. If one customer from one part order in the morning and delivered the product to that end, again he order for the second time is very tough to reach their ordered product. Another problem is major function of the customer relation officer of any sales center is to visit the customers three times in a year, which is a part of the ISO and TQM regulations. So all the customer relation officer used to visit customers by using the pick-up vans. So in this time the product supply interrupts. So for these customers there is no other problem to provide the service as it is committed.

ii. Gas resellers

There are two types of gas reseller according to the volume of gas purchase. Some of them are treated as the specific customers and the others are treated as reseller. The distribution system for the reseller is different from the specific customers. Resellers are purchasing their required gases at a discount rate and they have the right to buy their products directly, without making any queue. So they do not need to be waiting for a long time except any problem regarding the compressing plant. But the unusual situations should not be counted. These customers are carrying their gases through their own vehicles. So they don't have any vehicle problem as well. For the specific customers need to wait in queue, if they are not purchasing too many cylinders and using the hired vehicles providing the company. So these specific customers are waiting for long time. Here one problem got identified, which is long waiting time for the gas users. Availability of the gases is another problem for these customers. It is observed that in many times these customers are getting fewer cylinders than their demand or different sized cylinders, due to the cylinder crisis.

iii. Purchasing gases for personal uses

In this segment gas users may be classified as a specific customer or normal cylinder holder. Among these two types of this segment, normal cardholders are buying their gases without having any special right to buy. But the specific customers are getting some special facilities. Re-rolling mills of this area who are purchasing gases for their personal uses from this sales center are also included in this group of customer segment. The specific customers cover some of these Re-rolling mills. These specific customers are getting some special facilities. BOC Bangladesh Limited is providing their Tele-order facility, which facilitates them to order by telephone. They are also getting vehicle facility from the company as well as credit facility.

To identify the problems of two categories mentioned above, it is necessary to analyze the problems the customers and the officers and executives are answering during the survey time. Another issue is included to identify the problem is to check all the business process and the standard business environment the company set for every single purposes.

6.1: Part A: Problems relating to the organization

To analyse this part researcher interviewed the officers and executives of BOC Bangladesh Limited. To make this survey successful one questionnaire (Appendix 4) was made and distributed among the executives of BOC Bangladesh Limited. They responded enthusiastically according to the questionnaire. Findings of the survey and interviews are analysed below.

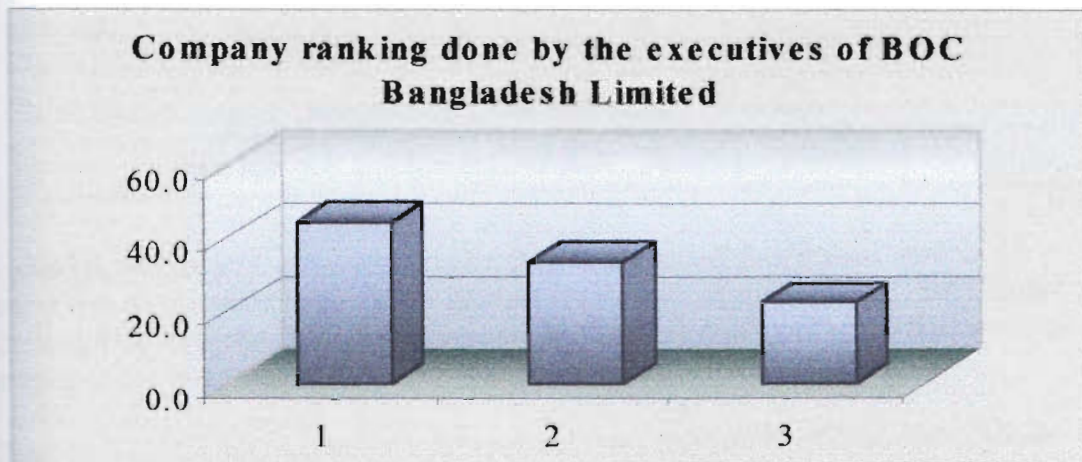
For this survey sample size was only 9 (nine). But these people helped the researcher to obtain the result from the survey. Up to question 1 (one) was to know the person and the responsibility to this organization.

Question 2 was made for the executives to rank BOC Bangladesh Limited. In this situation they ranked according to the table 6.A.1.

Table 6.A.1: Company ranking by the executives of BOC Bangladesh Limited

Number of Executives	Rank of BOC	Percentage of Executives
4	1	44.4
3	2	33.3
2	3	22.2

From the above table 6.A.1 we can draw a Column graph to show the level of confidence of the executives.



Graph 6.A.1: Company ranking by the executives of BOC Bangladesh Limited

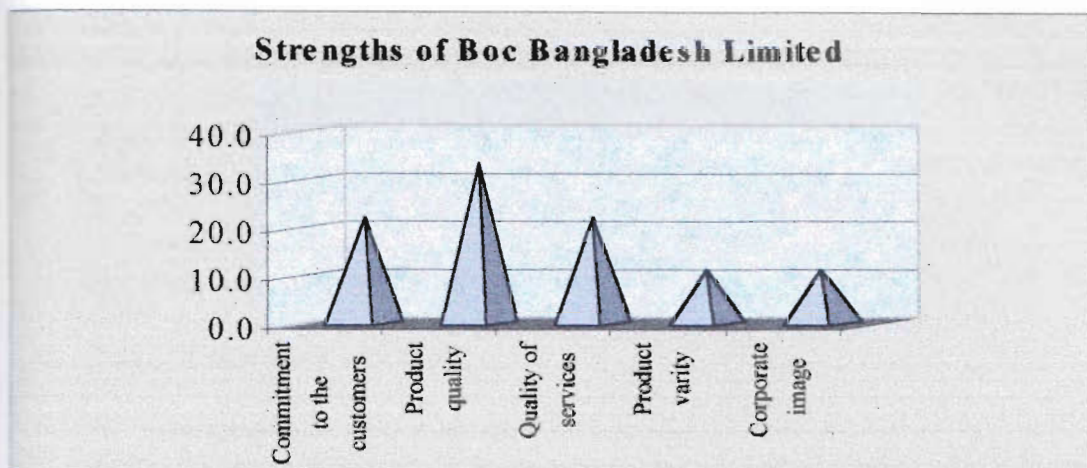
According to the table 6.A.1 and graph 6.A.1 it has found that most of the executives of BOC Bangladesh Limited thinks that their company is in number one ranking among the multinationals of Bangladesh.

Question 3 (three) was asked to identify all the strengths of BOC Bangladesh Limited according to the company executive's opinion. Most of the executives mentioned the following points as their strengths. These points are as follows.

Table 6.A.2: Strengths of BOC Bangladesh Limited according to the executives

Strengths of BOC Bangladesh Limited	Number of Executives	Percentage of Executives
Commitment to the customers	2	22.2
Product quality	3	33.3
Quality of services	2	22.2
Product Variety	1	11.1
Corporate image	1	11.1

To show the level of different points mentioned by the executives of BOC Bangladesh Limited one graph is required to drawn.



Graph 6.A.2: Strengths of BOC Bangladesh Limited

According to the table 6.A.2 and graph 6.A.2, it has found that highest number of executives mentioned the quality of product is the main strength of BOC Bangladesh Limited. But commitment to the customers and Service quality obtain the second best ranking of the strengths of BOC Bangladesh Limited.

Question 4 (four), was to mention the problems, the executives of BOC Bangladesh Limited are facing from different internal and external factors. In this case all of them mentioned more than 1 (one) problem from their experiences. These problems are:

i. Import restrictions

Bangladesh Govt. always maintains some of the restriction due to import goods and equipment. In case of new plant import, BOC Bangladesh Limited faced different types of unusual situations that should not be. These problems are making problem to provide the best service to the customers.

ii. Government procurement system

Due to reluctant attitude of the government officials and other authorities company faces problems to procure necessary item from abroad. This is another problem for the company still they are facing.

iii. Red-tape barriers

Red-tape barrier is one of the major problems of our country. To work for some projects it takes long time to procure. In this problem some extra charge or extra pressure is required to solve the problem. But for this company it is really hard to provide extra charge, for this situation BOC is ready to purse from the court but not through the unethical way. That's why often this barrier becomes major problem for the company.

iv. Understanding gap between the company and the Govt.

It is true that in several times company failed to inform their problems properly to the government and the standard process to facilitate the requirements for the company. Like, V-sat is one of the major requirements for the company. If they have it, they can connect their entire 24 sales center into one network, which is mandatory to keep the efficient information flow. Another issue is Vat for their sales. BOC Bangladesh Limited maintains a full automated vat process system. So that all the vat and other Govt. charge is assured. But still Vat authority makes problem to take this document. These problems should be handled through very efficient and effective personnel.

v. Lack of customer knowledge

Wide range of customer often makes BOC Bangladesh Limited in trouble. It has found that a large number of customers are not literate, they don't have any idea about the BOC product. Then it makes mass to the company to make them understand what is right and what is wrong. Because of not having any idea about the product they often getting the wrong product for their using, which is not required for their purpose. So it is really very hard time to make them understand about the product and quality.

vi. Interest rate and exchange rate fluctuation

Interest rate and currency exchange rate is an important issue for the company. As because of being the multinational company BOC need to maintain some of the regulations and relations with foreign companies. So that to make contract or due to the subject of remittances this point plays a great role. In this case they need to follow the future contracts or the options. But still they have some risk associated with this issue.

6.2: Part B: Problems relating to the customers

To analyze this part researcher attempted into three different surveys within the customers survey portion. These are

1) In-office customer satisfaction survey

For this survey, researcher organized a common questionnaire for all the customers are waiting to get their gases. The reason for surveying these groups of people is to identify their needs and requirements at the same time their satisfaction level. Here, time required when the customer enters into the sales center, time required to unload the empty cylinders, time for invoice the product, time for supply the gases, time for loading the gases into the vehicle and time to exit from the sales center was checked to compare with the standard timing. Obviously the customers filled the other requirements during their waiting time.

2) Residual gas survey

According to the data and information it is clear that all the Oxygen customers of BOC Bangladesh Limited is not able to utilize entire gas pressure of the cylinders. To provide more satisfaction to the customers of BOC Bangladesh Limited one survey was conducted by the researcher. In this survey all the cylinders coming to fill Oxygen, were checked and found vacant or the valve of the cylinders are open. So the researcher surveyed the empty cylinders from the customer end. The job welders or the customers, who are using this oxygen for welding purpose, are able to use the maximum amount of the cylinders. The Re-rolling mill users, who are using this oxygen for cutting purpose, are not getting full cylinders support. So for this survey only sample group is the Re-rolling mills, who are using this oxygen for scrap cutting activities.

3) Re-rolling mills survey

Re-rolling mills are the biggest customers of the Oxygen gases for Postogola Sales Center. To identify the market condition of the territory of the Postogola Sales Center, its required to make a profile of the Re-rolling mills. So the researcher attempted for this Re-rolling mills Profile. For the profile, researcher faced a lot of problem. Most of the Re-rolling mills are running by the lease or the rented people. Always the people who are running the Re-rolling mills are scared for the VAT, Custom and Income tax authorities. So to acquire information about the mill was not very easy job. It took hard effort to enter into the mills. Many times they didn't allow entering into the mill, if the proper authority wasn't there. Then to acquire information of those, who didn't allow entering to their mills, this researcher took help of the customer relation officer of Postogola Sales Center. Finally this profile has completed with the cooperation of him.

Home-office customer satisfaction survey

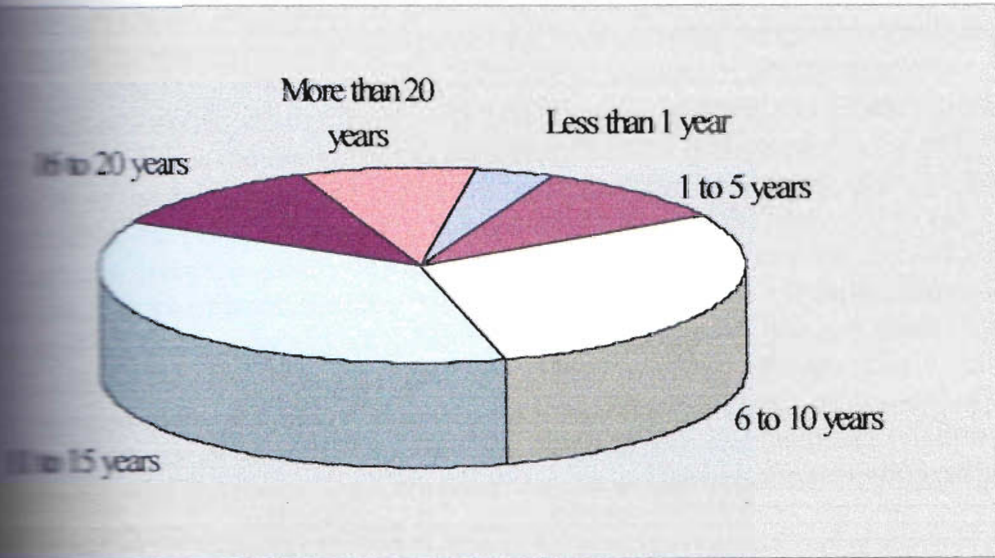
As has explained that to identify all the problems customers are facing to purchase product from the sales center of BOC Bangladesh Limited, the researcher conducted a customer satisfaction survey. For the first part of this survey researcher made a questionnaire (Appendix 5) and was provided for filling it by the customers used to use and purchase BOC product from the "Postogola Sales Center". Here it has to be noted that the customer segment for this survey was limited within the customers who usually wait for long time. Analyses of survey questionnaire are described below.

Sample size of this survey was 79. Out of these sample size, total business relation with BOC Bangladesh Limited of those customers are shown in the following table.

Table 6. B. 1: Customers business duration with BOC Bangladesh Limited

Duration of business relation with BOC Bangladesh Limited	Number of customers	Percentage of the sample size
Less than 1 year	3	3.80
1 to 5 years	8	10.13
6 to 10 years	23	29.11
11 to 15 years	29	36.71
16 to 20 years	9	11.39
More than 20 years	7	8.86

From this table it is very easy to draw a graph, where the percentage of the sample size will be clear to understand.



Graph 6. B. 1: Customers business duration with BOC Bangladesh Limited

From this chart it has found that the highest amount or the biggest pie of the business duration of the customers are 11 to 15 years with BOC Bangladesh Limited. So it is

clear that the customers are purchasing their required products from BOC Bangladesh Limited for the long time.

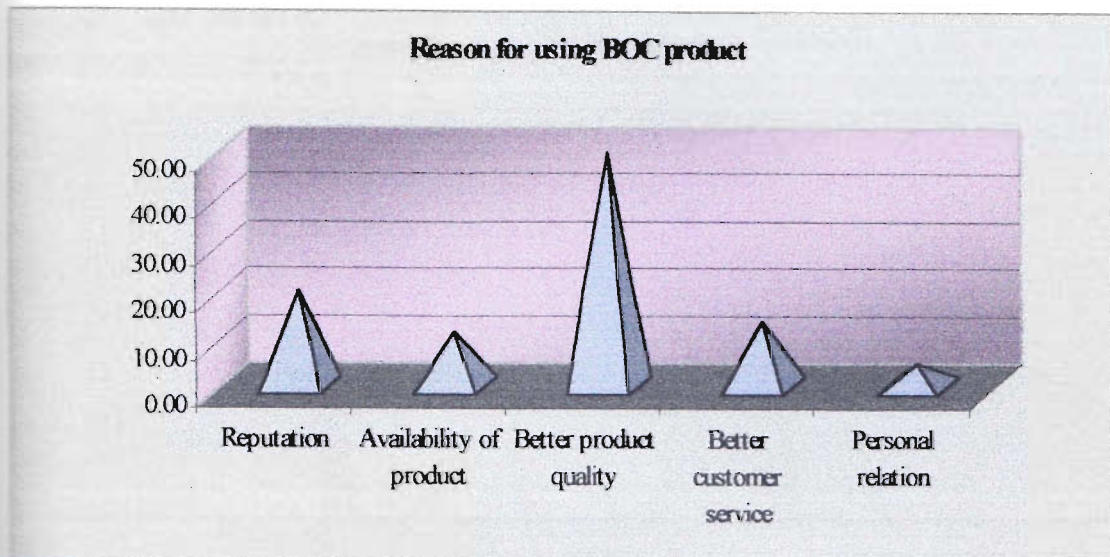
During this survey it was find out that all the customers waiting for their product, came to purchase mostly for ASU gases and Dissolved Acetylene. The reason for not having other type of customer was described in the earlier part of this chapter. That is the policy divided the customers from the same queue.

Questions number one was involved to identify the product name, the customers are buying through the queue. Questions number two demands the reason for using the BOC product. From all the answers of the questionnaire it has found that there are five different reasons for using BOC product. All the customers mentioned different name of facilities BOC Bangladesh Limited is providing to their customers. One chart and a pie graph can be drawn here to show the reasons for using BOC product as percentage of total respondents.

Table 6. B. 2: Reasons for using products of BOC Bangladesh Limited

Points for using products of BOC Bangladesh Limited	No of Respondents	Percentage of respondents
Reputation	16	20.25
Availability of product	9	11.39
Better product quality	39	49.37
Better customer service	11	13.92
Personal relation	4	5.06

These five reasons are reputation, product availability, product quality, customer service and personal relation. Reputation of business for a long time is attracts more peoples to choice the product of BOC Bangladesh Limited. Next point is availability of products, which means how available the product is for the customers. This point also includes the waiting time for the product due to unavailability of product. Then the next two points are product quality and customer service. Here it has found that product quality is the one reason that attracts the most customers. Purity and the better quality of the product are the main requirements of the customers. Then the last point came from the group of customers is personal relation of the company to the customers. Here the quality of the customer relation officer and mangers of the company can be played the most vital role. Unless customer relation officers and customer relation mangers are qualified enough to maintain the customers might loss the future customers. It might possible to get the market for the short time without proper customer care, but not possible for the long time. These customers will switch to the competitors whenever they will get better choice and the better relation of company with the customers. One graph can be use here to show the biggest point, for which customers are purchasing the product.



Graph 6. B. 2: Reasons for using products of BOC Bangladesh Limited

From the pyramid-sized columns of the graph it is clear that the reason of product quality is attracting the customers most. Then the second point is reputation of the company. Here it should be mentioned that company always gives the first priority to the commitment provided to the customers, which is another reason for achieving the reputation for the company. The next positions of reasons for using BOC product are respectively better customer services, availability of product and personal relation.

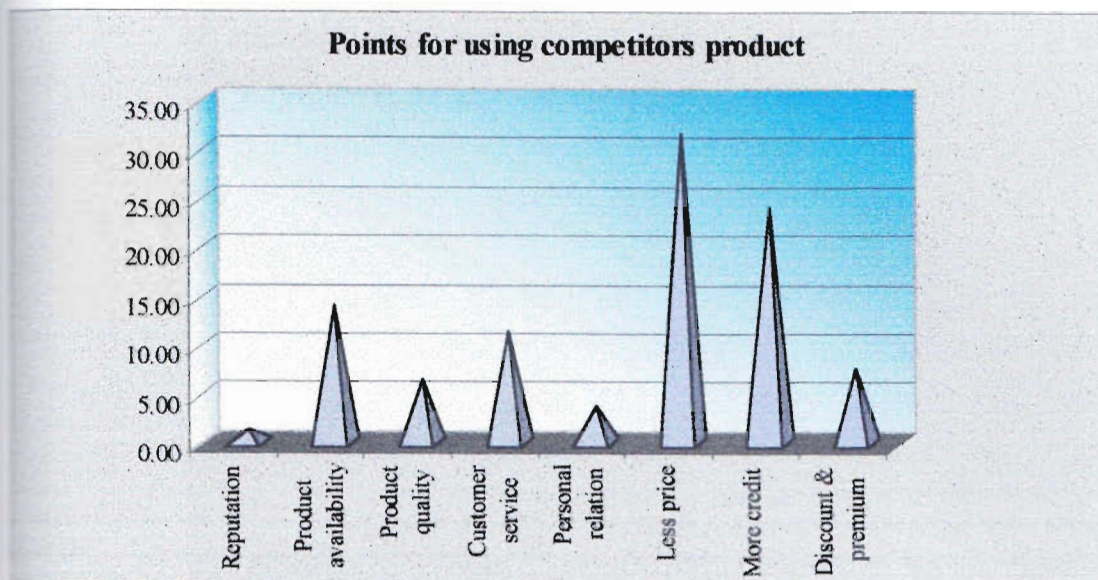
Question number three asked to the customers to know the facilities, providing by the competitors of BOC Bangladesh Limited. To response this question, customers of BOC identified eight reasons. Different customer raised different points. These points are company reputation, product availability, product quality, customer service, personal relation, less price, more credit and lastly more discount and premium.

Table 6. B. 3: Competitors facility providing to the customers

Reasons for using Competitors product	No of respondents	Percentage of respondents
Reputation	1	1.27
Product availability	11	13.92
Product quality	5	6.33
Customer service	9	11.39
Personal relation	3	3.80
Less price	25	31.65
More credit	19	24.05
Discount & premium	6	7.59

Here by doing this question the researcher tried to find out the opportunity cost of the present customers of BOC Bangladesh Limited. By answering this question customers identified percentage of different opportunities they are losing, which is the

opportunity cost for the present customers of BOC Bangladesh Limited. Here to justify the question and its answer one graph is required.



Graph 6. B. 3: Facilities are providing by the competitors of BOC Bangladesh Limited

According to the graphical presentation of competitor facilities, highest opportunity for the customers is less price compare to BOC product. They also offer more credit, discount and premium. These competitors also try to make their product available and provide better customer service. But the reasons for avoiding these lucrative offers of the competitors, are poor quality of product, low personal relation and reputation of company. So these are the competitive advantage BOC Bangladesh Limited have over the competitors.

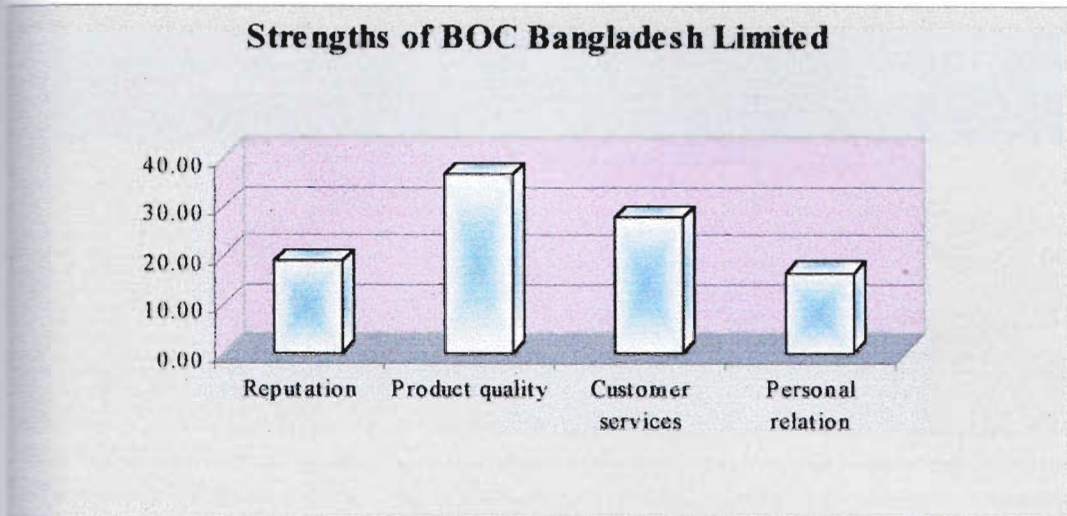
Question number four is the strength of BOC Bangladesh Limited. Customers repeatedly indicated their choice as the strengths of the company. From their point of view, what is the most strength of the company was the question. Customers again notify all the points they have mentioned in the answer that the reason for using the product of BOC Bangladesh Limited. At different percentage customers showed the strengths of BOC Bangladesh Limited.

Table 6. B. 4: Strengths of BOC Bangladesh Limited

Strengths of BOC Bangladesh Limited	No of respondents	Percentage of respondents
Reputation	15	18.99
Product quality	29	36.71
Customer services	22	27.85
Personal relation	13	16.46

Here it is clear that customers are indicating the reasons, that for what they are using the product of BOC Bangladesh Limited as the strength of BOC Bangladesh Limited.

One thing should be mentioned here, which is the availability of product. Customers often face scarcity of product at the sales center that's why they didn't show this term into the strength part of the company.



Graph 6. B. 4: Strengths of BOC Bangladesh Limited

According to the respondent's answer, product quality of the company has identified as the biggest strength of the company. The next biggest strength is customer service. Respectively company reputation and personal relation became the strengths after those points.

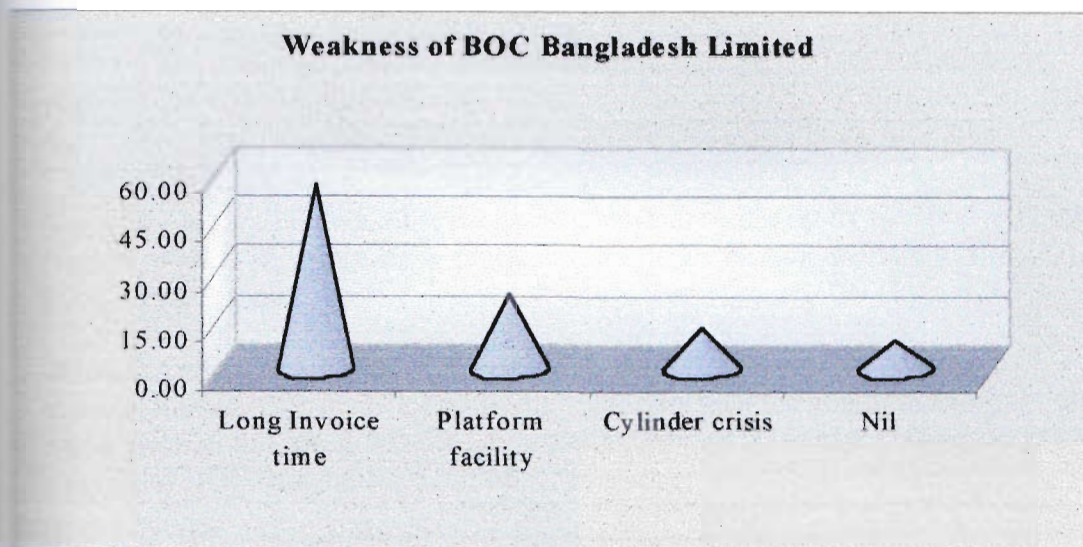
Question number five was the weakness of BOC Bangladesh Limited. There are three items identified from this survey as weaknesses of the company. These are invoice time, platform facility, cylinder crisis.

Table 6. B. 4: Weakness of BOC Bangladesh Limited

Weaknesses of BOC Bangladesh Ltd.	No of Respondents	Percentage of respondents
Long Invoice time	44	55.70
Platform facility	18	22.78
Cylinder crisis	10	12.66
Nil	7	8.86

In this situation another thing identified that there are some loyal customer of BOC Bangladesh Limited that they don't know what are the flaws does BOC have in their system. This category of the customer includes total 8.86% of total customer surveyed, which means out of total 79 respondents there are 7 customers, who don't know or want to ignore all the weakness of the company.

Now one graph can be shown here to obtain a clear idea about the biggest weakness of the company.



Graph 6. B. 5: Weakness of BOC Bangladesh Limited

From this graphical presentation it is clear to get the idea about the real weakness of BOC Bangladesh Limited. From the pick it is identified that highest pick or the weakness is long time for invoice. That means it makes a long queue to produce an invoice for the customer. The next weakness is scarcity of platform facility. It has found that all the customers are handling their product from their vehicle to the filling station and again from the sales center to their vehicle. Another weakness is coming next that is crisis of cylinders. This is true that many customers used to wait for the cylinders. Often they get their invoice earlier than the supply of product.

Question number six is, whether BOC representatives are visiting all the customers on time or not. To answer this question some of the customers were shy to say anything. But at last some of them said they very rarely experienced any visit by the representatives of BOC Bangladesh Limited.

BOC representatives regularly visit the customers

	No of Respondents	Percentage of respondents
Yes	70	88.61
No	9	11.39

From the findings it seems that near about 88.61% customers are agree about the visit of the representatives and they got all the facilities the company is providing but rest of the total respondents found hardly to get the representatives of BOC Bangladesh Limited.

Question eight tries to identify the satisfaction level of the customers about the product quality.

Satisfied with the product quality		
	No of Respondents	Percentage of respondents
Yes	79	100.00
No	0	0.00

According to the respondents it is clear that customers are really satisfied with the product quality. So it should be granted as one of the biggest strength of BOC Bangladesh Limited.

Question nine is about price of the products. Here customers had the choice to mention that whether the price of product is higher than the competitors or not. So customers had the opportunity to say what they are really thinking about the pricing policies of BOC Bangladesh Limited.

BOC Bangladesh Limited is charging more for Their product		
	No of Respondents	Percentage of respondents
Yes	72	91.14
No	7	8.86

So, from the response of all the sample customers of BOC Bangladesh Limited, near about 92% of the customers are thinking that the price BOC is charging is higher then it should be. But the rest of the customers are considering this price appropriate. The interesting thing is hidden here, which is most of the customers are thinking that BOC is charging more then it should be but they didn't mentioned this price as the weakness of the company. This is really very interesting to think.

Question ten was to get the information about the timing of the invoice. This is a vital question for the company because if time to make an invoice increases then the customer queue increase, which also increases the dissatisfaction of the customers about the company.

BOC Bangladesh Limited is taking too much time to make an invoice		
	No of Respondents	Percentage of respondents
Yes	78	98.73
No	1	1.27

From this response it has found that, except only one customer all the respondents are agreed about the unexpected long time. So this issue should be clear and need to identify the real problem. To justify the complains of the customers another survey was conducted at the same time of this survey, that was time motion survey. Here every time of the customer motion is calculated. Time when the customers are getting into the sales center, how long time they are taking to unload their vehicles, how long time the company is taking to make an invoice, supply time after the invoice and how long time its taking to exit the sales center. From this time motion survey following average time schedule found to analysis.

Events	Entry to platform	Unload	Invoice	Supply	Loading	Exit
Average time (Minute)	5.05	4	44.07	12.20	7.30	4.4

So above timetable shows that it takes about 45 minute to produce only one invoice. So this is a problem for both customers and the company. After this information and findings, there is nothing to say that the complain is not true. If we see the time to invoice is unbelievable but this time increases only for standing into a long queue. It has found that customers are coming at morning and taking their supply near at afternoon. So this problem is getting severe and it should be eliminated.

Question eleven was, whether customers are satisfied with the product availability or not. This is another very vital issue for the company as well as for the customers. Many of the customers mentioned non-availability of product is one of the weakness of the company. So this problem should be identified and should be eliminated.

Customers are satisfied with the availability of BOC product		
	No of respondents	Percentage of respondents
Yes	44	55.70
No	36	45.57

According to the survey information it has found that about 56% of the total customer respondents are satisfied with the availability of the product but the rests are not. So this is the place where two sides are getting preferences.

2) Residual gas survey

Before discussion about the survey it is necessary to describe the factors associated with the term “residual gas”. Oxygen gas is one of the major products of BOC Bangladesh Limited. To make the customer survey and to know the business process of BOC Bangladesh Limited; this researcher visited the highest selling, “Postogola Sales Center” of BOC Bangladesh Limited. The major selling product of this sales center is Oxygen gas.

Being in an industrial belt this sales center gets some factory like, re-rolling mills. The main purpose of these re-rolling mills is to cut and melt the scarp of the ship and ingot, then produce iron rod, flat bar, angle and some other iron construction materials according to the customer demand. To cut those ships scarps and to size it in a convenient size Oxygen gas is required. So Oxygen sales of this sales center are higher than any other sales center. Customers always prefer a special size of the cylinders, which is 9.8 cubic meter sized cylinder. One thing should be clear that all the customers of this territory are using gas not the liquidate Oxygen. This liquidated Oxygen is using in Chittagong ship breaking units, different industry of this country whose requirement is bulk amount of gases. Though some of the customers of this territory are using bulk amount gases but are not interested for using liquidate form of gases because of their less knowledge about the product.

One problem was identified by the company that no one of these customers could use the whole amount of pressure of the cylinders. This is a value loss for the customers. BOC Bangladesh Limited always committed to its customers for providing the highest value within their range. That’s why the amount of the pressure loss should be identified to provide some of the facility to the customers instead of the losing pressure. For this reason this researcher attempted a survey on the amount of residual gas.

During this survey time researcher tried to measure the residual gas pressure from those cylinders are coming for fill into the filling station. Situation was something different. Researcher found that most of the bulbs of the cylinders are open or there is nothing to measure. This is why the researcher decided to collect all the information required to this residual gas survey from the customer end or site.

In this situation researcher started the survey schedule with the entire giant customers of this sales center. This survey was conducted for a week, which started at morning and ended at night with a break at noon. This survey was conducted by area wise. Total six areas of this sales center were divided into five different area segment to survey in an efficient way. These segments are area 1 total Demra, area 2 covers total Jurain and Postogola, area 3 covers the whole Shampur, area 4 covers total Pagla and at last area 5 covers total Fatullah.

A date-wise survey schedule is given below, where date of the survey, survey time, name of the customers and the number of the cylinders surveyed.

Date	Survey Time	Customers Name	Number of Survey
June 17, 2001 Sunday	3:30 PM – 8:00PM	Taz Industry	21
		Rupali RRM	21
		Pioneer RRM	9
		Sun Steel RRM	20
June 18, 2001 Monday	10:00 AM – 2:30PM	City RRM	7
	4:00 PM – 7:30PM	Metropolitan RRM	6
June 19, 2001 Tuesday	10:00 AM – 2:00PM	Kanika RRM	5
	3:30 PM – 6:00PM	A.K.RRM	5
		Al-Amin RRM	7
		Progoti RRM	9
		Padma RRM	13
June 20, 2001 Wednesday	10:30 AM – 2:00PM	Taz Industry	14
	3:00 PM – 6:00PM	Zerin RRM	4
		Rupali RRM	17
		Quality RRM	9
		Pioneer RRM	6
		Sun Steel RRM	14
June 20, 2001 Thursday	10:00 AM – 4:00PM	Sajahan RRM	6
		Azmiri RRM	5

This survey schedule is showing that total 15 giant customers of “Postogola Sales Center” has surveyed and total 199 oxygen cylinders has surveyed from different customers.

From this survey, pressure reading of all the oxygen cylinders has identified is given below.

50	52	68	50	70	50	85	52
50	50	60	50	60	50	80	50
40	75	65	40	85	42	50	58
65	78	40	68	58	48	62	50
60	62	42	60	48	60	50	58
50	68	50	50	40	52	52	50
70	60	50	75	42	55	55	52
50	60	60	50	52	50	52	50
60	50	70	50	55	60	50	60
95	75	80	78	60	50	50	50
50	85	60	40	62	52	52	50
90	60	82	50	80	40	50	50
80	50	60	50	70	48	52	40
85	50	40	40	68	60	40	48
60	40	80	55	60	50	50	50
62	52	90	60	60	68	50	60
90	50	70	50	50	50	50	40
70	45	50	58	50	50	52	50
40	50	78	50	62	40	60	50
65	50	50	60	50	60	60	52
40	40	62	58	62	92	60	60
50	60	60	55	60	60	50	60
50	90	80	80	60	40	52	80
52	50	52	50	80	62	50	70
80	48	60	60	68	60	58	
Total: 11473						Average: 57.65	

One special low pressure meter was used to collect the readings of low pressure cylinders. Measurement limit of scale of this meter is 10 points from one point to another. In between two points of this pressure scale divided into 3 (three) segment. These are 2, 5 and 8 according to the low, medium and high pressure.

Size of the cylinder, researcher surveyed is 9.8 M³. For a 9.8 M³ cylinder, it is required to maintain 1980 psi (per square inches) oxygen gas pressure. This survey discovered that, for 199, 9.8 M³ cylinders total residual gas was 11473 psi. Average of this total gas amount is 57.65 psi. This is 2.91% of the pressure maintains in a 9.8 M³ cylinder. It is considerable portion of total oxygen gas pressure that customers could not use for their purpose. So to maintain continuous improvement of customer service it is required to solve any equation how the company can provide service to compensate this pressure lose.

3) Re-rolling mills survey

According to the papers and documents it is clear that Re-Rolling Mill is the prime and supreme customer of the oxygen gas for “Postogala Sales Center”. That’s why the researcher tried to make a profile of Re-Rolling mill within this postogala territory. According to the functions and uses of raw materials we can segment these mills into two categories. These are Still Mill and Re-Rolling Mill. Both of these two mills are producing the same product but the raw materials and the way in which they are producing their product is different. The reason for being the name of Re-Rolling Mill is the process of their mill unit where they are providing their raw materials into a hot roll process. This unit takes the melted iron and providing different shape as the producer is looking for. There are 4 (four) stage to produce the finished product. These stage roles the input one after one this is why the mill is named Re-Rolling mills. The size of this machine is the size of dice that machine support. When the raw materials passes through the dice then it shaped like the dice provided into the machine.

Scrap is supplying to the whole country from the ship-breaking yard. In case of scrap is removed or cut by gas cutter and make the scrap into some easy handling size. Then these plates are cut into some lower size by the shearing machine, which is a part of the Re-Rolling Mills. Then they heat the scrap up to 800 to 900 Degrees Celsius for hot rolling.

To know more about these mills lets look forward. To establish a Re-Rolling Mill about Tk. 60 lac to Tk. 70 lac including all the set-up and other relevant machines cost (except the land expenses) is required. This unit usually takes 20 to 40 minutes to produce per ton finished product. Wastage rate for this unit is approximately 10% and total melting time for this scrap is not more than 30 to 35 minutes. But here the heated materials are using for production. There is no need to make those materials cool. The quality of product is higher than any other mills are using to produce the rolling mills product.

Total cost for a Still Mill including all the installation and other relevant cost is from 1 (one) crore to 1.5 crore. Raw materials for this still mill is very cheap but to melt those iron materials used to take 45 to 60 minutes. Then it takes another 3 to 4 hours to be cool or to reduce the temperature. Wastage from these raw materials comes out at 15%. From raw materials to the finished product total conversion cost is cheaper than any other re-rolling mills. But the profit margin is huge compare to the Re-Rolling Mills. This is why the mill owners are presently interested to the still mills rather than rolling mills.

Cost analysis of the different rolling mills is given in the following data table.

Type of the Mill	Re-Rolling mills	Still mills
Setup Cost (except land)	Tk. 60 to 70 lac	Tk. 1 to 1.5 crore
Raw materials (including freight)	Tk. 15,000 to 17,000	Tk. 9,000 to 11,000
Conversion cost	Tk. 2,300 to 2,800	Tk. 2,500 to 2,800
Wastage	Tk. 1,500 to 1,700 (10 %)	Tk. 1,350 to 1,650 (15 %)
Others	Tk. 150	Tk. 150
Total product cost (per ton)	Tk. 18950 to 21650	Tk. 13,000 to 15,600

From the cost analysis researcher found that though these business people's profit margin is very low but they are not losing because of their unexpressed attitude. These businessmen are used to avoid their electric, natural gas, VAT and custom charge. Some misguided officers of those offices are also helping these unethical and corrupted business peoples. This comment does not reflect that each and every Re-Rolling Mill owner or leased owners are doing the same business but the most of the numbers are involved in it.

Due to this downward profit margin many owners rent out their mills to crushing contractors. In many cases owners or renters appointed scrap cutting contractor. In this case contractors manages oxygen, gas cutting equipment and manpower. Usually for a Re-Rolling Mill 80 to 85 manpower is necessary. Rent cost varies from Tk. 75 thousands to Tk. 1 lac. Ship price increase in international market and repeated accidents in ship breaking yard is making this business harder.

The summary of the re-rolling mill survey is given below.

Territory: Postogola

Industry: Re-Rolling Mill

Number of the Mills: 61

BOC Oxygen gas consumption (M ³)	DSPL Oxygen gas consumption (M ³)	SOL Oxygen gas consumption (M ³)	ROL Oxygen gas consumption (M ³)	Total Oxygen gas consumption (M ³)
91,800	89,500	9,300	-	1,99,600

Details mill-wise explanation is provided in the Appendix 6. Company wise profile of the Re-Rolling Mills included the entire name, address, and contact person of the mill, available phone numbers and the amount of the gas consumption. From the summary of this profile it is observed that main competitor of Postogola sales center is "Diamond Still Product Limited".

At the end of "Part A" and "Part B", it is observed that there are some problems both executives and the customers are facing for different reasons. Some remedial measures to solve these problems are described in the chapter 7 (Seven) of this report.

CHAPTER SEVEN

RECOMMENDATION FOR BOC BANGLADESH LIMITED

RECOMMENDATION FOR BOC BANGLADESH LIMITED

Recommendation should broadly consider the overall company diagnosis and the problem identification chapter, which is grounded in the basic principle that strategy-making efforts must aim at producing a good fit between company's resource capability and its external situation. Without implementing all these, the task of conceiving a strategy becomes a chancy proportion indeed.

The overall performance analysis of BOC Bangladesh Limited represents that it is having a strong position and capturing a good deal of markets. They have some valuable intangible assets, like- company reputation, a high degree of employee loyalty, ethical business practice, highly knowledgeable employees, long established relationship with customers and so on. The success of BOC Bangladesh Limited depends not only on how well each task performs but also on how well the various departmental activities are coordinated. So to hold up their existing capabilities along with the changing situation it should go through different types of implementing procedures that the researcher has found and that might help the company for further improvement.

In view of the foregoing analysis and above-mentioned problems of BOC Bangladesh Limited the following recommendations for BOC Bangladesh Limited are suggested.

If a company has to perform as effectively and efficiently as possible, each department and unit needs to benchmark how it performs specific tasks and activities against best-in-industry or best-in-world performers. A strong commitment to searching out and adopting best practices is integral to effective strategy implementation-especially for strategy-critical and beg-dollar activities where better quality would effect the bottom line performance. So the first job of the managers of BOC Bangladesh Limited would be to use the TQM approach in their service organization to attain its strategic objectives.

TQM aims at installing enthusiasm and commitment to doing things right from top to bottom of the organization. It entails a restless search for continuing improvement. Total quality management is race without finish. The managerial objective is to kindle a burning desire in people to use their ingenuity and initiative to progressively improve on how tasks are performed.

1. Management requirements

Responsibility to the managers of BOC Bangladesh Limited measurers the strategy requires. The action steps managers of BOC Bangladesh Limited should include:

- ❖ Visible, unequivocal, and unyielding commitment to total quality and contentious improvement including a quality vision and specific measurable quality goals.

- ❖ Preaching that performance can, and must, be improved because competitors are not resting on past laurels and customers are always looking for something better, they should remember the advantages and disadvantages of the products and services of the company.
- ❖ BOC Bangladesh Limited is the one leading company of Bangladesh and having a potential market share. It can generate its profits and revenues coming from the strong business sources to the weaker businesses in order to pay its bills and support them.
- ❖ Developing budgets to steer ample resources into its value chain activities critical to strategic success. BOC Bangladesh Limited should examine its costs and performance in each value-creating activity and to look for ways to improve it. It should also estimate its competitor's or one best organization of the country or world's cost and performances as "benchmarks" against which to compare its own costs and performances. By doing this they can perform certain activities better than its competitors to the extent.
- ❖ Installing information, communication, and operating systems that enable company personnel to carry out their strategic roles successfully day in and day out. It is important to determine how the relationships with special outsiders are to be managed and assign responsibility for building the necessary organizational bridges.
- ❖ The company should create a strategy supportive work environment and corporate culture in order to do things in a manner that nurture the chances of effective strategy implementation. Equally important is the systematic management efforts to match how the company goes about its business with the needs of good strategy execution help unite the company and produce a team effort to meet or beat performance targets.
- ❖ To be in a comfortable position a good management team is not enough. It is important to put together a compatible group of managers who possess the full set of skills to get things done. So they should adapt the task of staffing the company with talented people that must go much deeper into the company ranks.
- ❖ It should develop a flow chart of the total business process and then simplify it. After that they should determine which parts of the process can be automated (usually those that are repetitive, time consuming, and require little thought or decision); consider introducing advanced technologies that can be upgraded to achieve next-generation capability and provide a basis for further productivity gains down the road.
- ❖ BOC Bangladesh Limited can go for different types of promotional strategies that should be matched its mission and vision. It should improve resource utilization and can proceed by talking to dealers, experts and competitors including by talking to consumers. Since consumers are the good source of

idea generations. Their feelings about the strengths and shortcomings of existing brands provide important clues to creative strategy.

- ❖ BOC Bangladesh Limited should diversify their business because of growing world concern. The whole world is crying for the global peace. So many barriers may come up to protect and defend their business as the meaning of keeping stop of producing destructive war instruments.
- ❖ Discover and implement new design and new product offerings that current customers want. They can produce the product and the anti of that product then their market share cannot be dominated by any other competitor company.
- ❖ Idea screening policy can also be taken for the successful development of BOC Bangladesh Limited.

2. Designing incentive compensation system

Tying rewards and incentives to the achievement of performance objectives and good strategy execution, rather than playing a merely passive role or acting as obstacles.

If the targeted performance measures are appropriate to the strategy and if top executives, middle managers, professional staff, and line employees buy into the process of continuous improvement, then the work climate will promote proficient strategy execution and good bottom-line business performance.

Guidelines for Designing Incentive Compensation Systems is the concepts and company' experiences discussed above yield the following guidelines for creating an incentive compensation system to help drive successful strategy execution:

- ❖ The performance payoff must be a major, not minor, piece of the total compensation package at least 10 to 12 percent of base salary. Incentives that amount to 20 percent or more of total compensation are big attention gets, likely to really drive individual effort; incentives amounting to less than 5 percent of total compensation have comparatively weak motivational impact. Moreover, the payoff for high performers must be substantially greater than the payoff for average performers and the payoff for average performers substantially bigger than for below average performers.
- ❖ The incentive plan should extend to all managers and all workers, not just be restricted to top management. It is a gross miscalculation to expect that lower-level managers and employees will work their tails off to hit performance targets just so a few senior executives can get lucrative bonuses.
- ❖ The reward system must be administered with scrupulous care and fairness. If performance standards are set too high or if individual/group performance evaluations are not accurate and well documented, dissatisfaction and disgruntlement with the system will overcome any positive benefits.

- ❖ The incentives must be tightly linked to achieving only those performance targets spelled out in the strategic plan and not to any other factors that get thrown in because they are thought to be nice. Performance evaluation based on factors not tightly related to the strategy signal that either the strategic plan is incomplete (because important performance targets were left out) or management's real agenda is something other than what was stated in the strategic plan.
- ❖ The performance targets each individual is expected to achieve should involve outcomes that the individual can personally affect. The role of incentives is to enhance individual commitment and channel behaviour in beneficial directions. That won't happen when the performance measures an individual is judged by are outside his/her arena of influence.
- ❖ Keep the time between the performance review and payment of the reward short. A lengthy interval between review and payment breeds discontent and works against reinforcing cause and effect.
- ❖ Make liberal uses of non-monetary rewards: don't rely solely on monetary rewards. Money, when used properly, is a great motivator, but praise, special recognition, handing out plum assignments, and so on can be potent motivators as well.
- ❖ Skirting the system to find ways to reward non-performers must be absolutely avoided. It is debatable whether exceptions should be made for people who've tried hard, gone the extra mile, yet still come up short because of circumstances beyond their control—arguments can be made either way. The problem with making exceptions for unknowable, uncontrollable, or unforeseeable circumstances is that once "good" excuses start to creep into justifying rewards for non performers, the door is open for all kinds of "legitimate" reasons why actual performance failed to match targeted performance. In short, people at all levels have to be held accountable for carrying out their assigned parts of the strategic plan, and they have to know their rewards are based on their accomplishments.

Once the incentives are designed, they have to be communicated and explained. Everybody needs to understand how incentives are calculated and how individual/group performance targets contribute to organization wide performance targets. Moreover, the reasons for anyone's failure or deviations from targets have to be explored fully to determine whether the causes are poor individual/group performance or circumstances beyond the control of those responsible.

The pressure to achieve the targeted strategic and financial performance and continuously improve on strategy execution should be unrelenting. A "no excuses" standard has to prevail.³ But with the pressure to perform must come deserving and meaningful rewards. Without an ample payoff, the system breaks down, and the

strategy implementers is left with the unworkable option of barking orders and pleading for compliance.

3. Increase availability of cylinders

According to the market survey and demand found from the customers, it is clear that oxygen is one of the largest selling products of BOC Bangladesh Limited. But BOC is covering only 44% of the total oxygen market. Rest of the market is covering by the competitors. On the other hand oxygen demand is continuously increasing, which is a major opportunity for the company. But at present BOC is suffering for their crisis of industrial oxygen cylinders. Most of the sales centre of BOC Bangladesh Limited is feeling this crisis very hardly. Postogola sales centre is one of them.

This Postogola sales centre is the highest selling sales centre for the industrial products. That's why the crisis is also high for this sales centre. So it is required to increase the number of oxygen cylinders for the biggest sales centres immediately. Company could obtain the optimum amount of profit from these sales centres if it is possible to manage some more oxygen cylinders for them.

4. Increase liquid gas users

Liquid gas users are getting liquid form of their required gases from the company. For this purpose company set a Vaporising Insulated Evaporator (VIE) tanker at the site of the customer. These customers are getting uninterrupted supply of gases. The criteria for getting these VIE is to consume gases at a bulk amount. Customers are getting different facilities for using these VIE at their site. Company as well feeling convenient for supplying these liquid customers.

Expansion of liquid customers makes the company happy in two ways. The reasons for being happy with these customers are these customers are not looking for the cylinders and company doesn't need to send products regularly. So BOC should provide effort to increase liquid customers first, rather than the cylinder customers, then they will be able to collect some cylinders to serve the growing demand of oxygen.

5. Price review

According to the customer and market survey it is found that BOC Bangladesh Limited is charging the highest price for their products. One example can be shown here, Diamond Steel Products is charging Tk. 216 for their 9.8 M³ sized oxygen cylinders, on the other hand BOC is charging Tk. 311 for their same size of oxygen cylinders. Although BOC product is always very expensive but still they are getting customers. But in future customer may lose their purchasing power to buy BOC product. Then they will have no other choice than switch to the competitor product only because of the cheaper price.

It is known that price cut is the last weapon over the competitors. But to provide more utility to the customers, BOC Bangladesh Limited can provide a little bit price cut offer to them. Another step they can take is to provide price cut offer only for the bulk amount of product consumers.

6. Flexible discount policy

BOC Bangladesh Limited set a discount policy for their customers. Resellers are getting 2% discount on their amount of purchase. And specific customers are getting volumetric discount on their consumed product. BOC used to be very restricted for their price and discount policies. BOC should set a new discount policy where varieties of discount scheme will be available for different customers. Through this new policy BOC can provide different discount choice to the customer and in the long run it will increase the competition for the product. So this scheme could attain more sales for the company.

7. Residual gas utilisation

To identify all the problems does BOC Bangladesh Limited have, different survey has conducted. According to those surveys it is found that most of the specific customers of BOC Bangladesh Limited are not able to use about 3% of any 9.8 M³ sized oxygen gases cylinders. This should be considered as value loss of the customers. So company should set a policy to utilise these value loss of the customers. This policy could be including all the price review and discount policy mentioned in the previous two recommendations.

8. Queue management

According to the survey it is found, customers are thinking that BOC Bangladesh Limited usually prolong waiting time for procuring the product. So it is required to maintain waiting line. If this point could be established in a controlled way then dissatisfaction of the customers will be reduced. To manage the long waiting times ten points are described as follows.

- i. **Do not overlook the effects of perception management:** Consumers concern about waiting is growing. There is no limit to the frustration that waiting can cause. Cities are becoming more crowded, the workweek is expanding, the economy is worsening and people need more free time to deal with their frustrations. Now, more over then ever, excellent service is the key to success. Using perceptions management to improve customer satisfaction is only a tool, but it's a good tool.
- ii. **Determine the acceptable waiting time for your customers:** One minute of waiting in a bank will probably go unnoticed, whereas a minute hold on the telephone can be infuriating. Determining an acceptable waiting period will help managers set operational objectives and if those are met, will improve customer satisfaction.

iii. Install distractions that entertain and physically involve the customer:

Keep the content light hearted. Entertaining facilities like, cable TV connection may create the queue moderate. If the content of the distraction is light, fresh and engaging, customers remain interested and entertained for many visits. Customers during waiting prefer horoscopes and tabloid headlines to more informative headline news.

The message-screen is another tools to change customer perceptions effectively. It is inexpensive, easy to operate and did not disrupt normal operations. In addition, since most customers had to stand still to read the screen, they will become physically involved with the distraction and won't mind waiting as much. Screen placement force customers to turn slightly in order to read it, thus they will stand shoulder to shoulder rather than front to back for this situation.

iv. Get customers out of line: Whenever customers can be served without having to stand in line, both company and customer can benefit. For example, token number and its monitor can be used for this purpose. When a customer gets into the office for their product can be identified with a token. All the documents will be transferred to the desk through the official employees. Then the token monitor will call the token number when customers are needed for signatures.

v. Only make people conscious of time if they grossly overestimate waiting times: There is a trade-off, between accuracy of waiting time perceptions and the awareness of time. In this situation, perceptions are fairly close to reality, perhaps because customers have previous experience from some other issues. For whatever reason, informing customers of their expected waiting time backfired. The clock made people more aware of the waiting time. It also appeared to increase balking rates.

However, there may be numerous instances in which information on expected waiting time is helpful. Airline passengers, for example, have no way of knowing when a plane sitting on the runway will take off unless they're told.

vi. Modify customer arrival behavior: Customers are often aware of peak times before they arrive at a service location, but they show up then anyway. If some customers could be convinced to arrive at other times, everyone would be better off. To achieve this, signs that list off-peak hours could be posted in office. Servers could also mention off-pick hours to customers who have waited an inordinate amount of time. In addition, incentives could be used to encourage off-pick arrivals.

vii. Keep resources not serving customer out of sight: Several customers comments that they do not mind waiting so long as the teller seem to be working as hard as they can. Customers tend to become annoyed if they see

several unstaffed teller windows or if tellers are present but not serving customers. To address this perception, managers can adopt several policies:

- ◆ Keep idle employees out of view
- ◆ Conduct activities that do not involve customer interactions out of the customer's sight.
- ◆ Staff stations closest to the exit point of the queue first. The practice creates a better first impression for the customers.
- ◆ Keep unused physical capacity out of view

viii. Segment customers by personality types: The three types of customers we observed, watchers, impatient, and neutrals want different types of service from the bank. Watchers find the bustle of entertaining and prefer a friendly teller with a smile to a shorter line. The important group is more apt to emphasize the length of the queue in their definition of overall satisfaction.

The needs of the “impatient” can be met through innovative ideas that either avoid or reduce the waiting experience. The airline and hotel industries, for example, have developed club memberships that provide express check-in and check-out policies. Some retailers satisfy convenience-oriented businesses proves that people are willing to pay more for services that save them time.

ix. Adopt a long-term perspective: Managers must take a long-term approach when attempting to improve perceptions. Because daily satisfaction improved as the study progress, historical opinions change.

x. Never underestimate the power of a friendly server: Although waiting is an issue worth addressing, managers should not lose perspective. Servers should continually be trained and rewarded for good service, since their efforts can overcome many negative effects of waiting.

9. Advertising campaign

- ❖ Creating free positive publicity can be adopted to capture the heart share of people.
- ❖ Depending on budget lease some billboard in strategic location.
- ❖ Discover and implement new design offerings that current target customers want. They can mail current and past customers a questionnaire asking what other facilities they might want from BOC Bangladesh Limited. They can also mail new ideas with invoices to customers.
- ❖ Idea screening policy can also be taken for the successful development of BOC Bangladesh Limited.

10. Environment control in all the sales centre

BOC Bangladesh Limited is a leading multinational company in Bangladesh. They need to maintain certain environment standard for their product and the locations. Standard security measures for the company controlled by “NOSA”. Bangladesh is a warm tempered country. It is found that surveyed sales centre is not controlling all the safety measures guided to do from the company. BOC is a service organization. So they should control all the environmental factors, including all the health measures set by the company.

11. Computer operator training

To maintain smooth sales and other service operations BOC Bangladesh Limited needs a lot of computer operations. From the location of their operations it is found that existing computer operators are not very knowledgeable about different operations and troubleshooting of computers. What only they know how to operate and make invoice and other purpose they are employed for. For these lack of information about the computers these computers operators are making some problem very silly, but they seem these great mistake. Computer training for these operators will definitely increase their skills and efficiency, which is the requirement for the better customer satisfaction.

12. Hotkey adaptation for Local Management System (LMS)

First of all we need to know what is hotkey? Hotkey for computer is something is used to shortcut the process. These hotkeys makes the lengthy process shortcut. For example if we want to shut down the computer we can use “Alt+F4” keys of the keyboard. So these short keys makes our process easier and short cut. At present there is no hotkey for the official product procurement database of BOC Bangladesh Limited. By using this LMS BOC is preparing every day invoices and other product procurement papers. But not having any hotkey is making their process lengthy. So adaptation of hotkey is immediate for the company, this is another way to cut the invoice processing time.

13. Invoice process reengineering

At present three papers of invoice need to be printed. But from the observation it is found that the last paper is coming out is required first. So operator need to be stay until that paper comes out. This process should be reengineered for the efficient use of time.

14. Time to print an invoice should be reduced

From the observation it is found that to print a invoice it is taking three to four minutes to print. During the pick hour this long time makes a long queue. So company should think to make this printing time little bit faster. Even one minute shorter for printing will provide some convenience to the sales people.

15. Cleanliness should be maintained

As it is mentioned in an earlier point of this chapter it is required to make the environment clean and fresh to make sure the health and environment measures. During the visit of Postogola sales centre, it is observed that every day huge dust is depositing on the computer and other items. It was very hard to keep that free of dust. It also noticed that these dusts making the environment unhealthy, uncomfortable and impatient. Equipment also loses its life for this dust and different rubbish things. So to keep the environment tolerable and the machinery working it is necessary to make that location dust controlled area or sales centre. Different way is available to perform this step.

16. Platform management

BOC Bangladesh Limited is charging some amount for the platform service, for those who are coming for the products. To response the survey many of the customers mentioned that platform facility is not satisfactory from the concern people. In-charge platform staffs are reluctant to perform this job. That's why customers are bound to do these jobs for their own. It is also found that customers are crossing security fence for the lack of platform facility, which is very dangerous for everybody. So platform facility should be increased, for this reason some more employment should be needed. Another way to make this easier is to analyse the job responsibility of the employees. Any relaxed person can be rearranged into platform at his leisure time.

17. Waiting room management

Waiting room management is one of the major issues for the sales centre, where the customers need to wait for long time. If the company could make the waiting room in such a way that customers can be waiting at a comfortable environment. Situation for Dhaka factory is different than from the sales centre located in Postogola. The example of Postogola sales centre came into consideration because of, this is the highest industrial product selling sales centre and the researcher conducted all the customer survey on the basis of this sales centre. This place is an industrial belt, so lots of industries and mills are located in this area. The temperature of this area is high, though Buriganga river is very near to this area but the heat can not be absorbed in such a way that this place could be calm in a hot day.

To purchase the gas product most of the industry and mills used to send either any contractor or any staff of the mills. These people feel hurry for every moment. So controlled environment can make them convenient to be waiting. According to the discussion of the queue management point if all the fixtures and postures can be set during the time of waiting room management then a well combination could be maintain.

18. V-sat is necessary to use central server facility

V-sat used to make an online link among many of the network systems. There are 24 sales centre of BOC Bangladesh Limited. But no one is linked with the central database for the lack of information technology. In fact this problem should be categorised as the business barriers. The technology is available but some unnecessary and unjustified Govt. regulations are making this technology unusable for the company.

19. Withdrawal of security deposit has to be at the shortest possible time

To be a customer of BOC Bangladesh Limited it is required to deposit an amount of refundable security. This payment to the company has to be by cash. In case of withdrawal of this security deposit takes long time to complete all the process. And after all the procurement company provides a accounts payee cheque to the withdrawal customer. But this lengthy time consuming process makes problem to the customers. So this lengthy process should be changed immediately and need to manage withdrawal of security deposit at the shortest time possible for the company.

20. Monitoring and controlling

- ❖ Monitoring and controlling is needed because many surprises occur during the implementation of management and marketing plans, BOC Bangladesh Limited has to continuously monitor and control marketing activities in order to cope up with the changing situation. Well-organized check and balance system can keep BOC Bangladesh Limited safe from any kind of problem like this time's problem.
- ❖ In order to use monitoring skills to evaluate the results of its total process BOC Bangladesh Limited should focus on four types of marketing control. These are as follows.

TYPES OF CONTROL SYSTEM

Type of control	Prime responsibility	Purpose of control	Approaches
Annual plan control	Top management and Middle management	To examine whether the planned results are being achieved.	<ul style="list-style-type: none"> • Sales analysis • Market share analysis • Expense to sales analysis • Financial analysis • Market based score card analysis.
Profitability control	Marketing controller	To examine where the company is making and losing money.	Profitability by: <ul style="list-style-type: none"> • Product • Territory • Customer • Segment • Trade channel • Order size.
Efficiency control	Line and staff management. Controller	To evaluate and improve the spending efficiency and impact of management expenditures	Efficiency of: <ul style="list-style-type: none"> • Sales force • Advertising • Sales promotion • Distribution
Strategic controls	Top management auditor	To examine whether the company is pursuing its best opportunities with respect to markets, products, and channels.	Efficiency of <ul style="list-style-type: none"> • Management effectiveness rating instrument • Management audit • Management excellence review • Company ethical and social responsibility review

- ❖ Above all BOC Bangladesh Limited should perform a sophisticated financial analysis of marketing expenditures and results that affects the company's rate of return on net worth. The expense to sales ratios should be analyzed in an over all financial framework to determine how and where BOC Bangladesh Limited is making its money from their business. Specially it should examine adherence to profit plans, help prepare brand managers' budgets, measures the efficiency of promotions, analyze media production costs, evaluate customer and geographic profitability and educate marketing and management personnel on the financial implications of management decisions.
- ❖ Typically the goals and budgets of an organization are spelled out for each month or quarter. Higher management can review the results each period and identify businesses that are not attaining their goals. Managers of lagging businesses must explain what is happening and the actions they will take to improve plan fulfillment.
- ❖ Some control sections include backup or alternative plans, which outline the steps that management, would take in response to specific adverse developments, such as price wars or strikes. The purpose of backup or alternative plan is to encourage managers to think about difficulties that might lie ahead.
- ❖ To run the entire plan mentioned above there some of the action plan could be needed for BOC Bangladesh Limited These are:
 - ✓ Good customer relationship by observing special occasions.
 - ✓ Offer coupon and raffle draw system every year.
 - ✓ Provide seasonal discounts.

21. Customer training

Customer is the heart of BOC Bangladesh Limited. That's why BOC always care for the betterment of its customers. One welding training centre is available to train the job welders. As the same another program is needed to take for the gas users. Unless the customers know the best way to get the utility from the product, they would not be satisfied with the company. So, to provide the utility to the customers and to acquire the customer satisfaction, some program should be taken into consideration to provide customers training.

22. Need to pursue the Govt. for different issue

To ensure the best customer services, it is required some facilities for the company as well. For example, pursue to get the tax rebate from the Govt. Another problem is government is always treating BOC as any other service organization. But BOC Bangladesh Limited is something different from any other service organization.

They are committed to their customers for the service and as well as committed to the government to pay all the taxes and bills to the government as per the custom. For example, V-Sat is required for the company. But Govt. made a regulation that to set a V-Sat in every year the owner has to pay \$3,500. Where as the V-Sat charge for this type of service organization is only Rs. 10,000. So if BOC want to set up 24 V-Sat for their 24 sales centre then the cost will be unbelievable. So, for these types of problems one team of the company should be made to pursue the Govt. for these facilities.

23. Management training needed to pursue the defaulters

All the management staffs need to manage different situations. There are 24 sales centre of BOC Bangladesh Limited. All of these sales centres are dealing with different unusual events. To manage every thing is the prime and only responsibility of the management. That's why to manage every purpose managers need proper training to deal with it efficiently and effectively. This is why proper and continuous training program is required to make those managers perfect for all purposes.

24. Tie resellers and customers

Mutual beneficial relation is the only way to get the better response from the customers and the easiest way to serve the customer better than the competitors. This relation could be created through different techniques. For example, when the customer relation officers or the managers visit the customers then they could take those resellers with them then distribution of gifts and other surveys become easier and the relation among the resellers and the end users become close. BOC Bangladesh Limited do not prefer advertisement for their products. But their competitors are doing huge advertisement in the grass root level. So if the company can make involved the resellers and agents of BOC Bangladesh Limited, then the relation and customer satisfaction to the company both could be maintain. VIE installation is another way to get the gases customers for the long time period, but that will be company and customer relation rather than relation between resellers and customers.

25. Public relations

- ❖ BOC Bangladesh Limited can create press relations for presenting news and information about the company in the most positive light for the new customers. It can cover print media like newspaper, magazine etc. with catchy contents that include a few ideas for creating tactics.
- ❖ BOC Bangladesh Limited can sponsor various efforts to publicise their theme, ideas, and creative works. Creating free positive publicity can be adopted to capture the heart share of people.

BIBLIOGRAPHY

1. Annual Report 2000 - 1991, BOC Bangladesh Limited
2. Arthur A. Thompson and A. J. Strickland “Strategic Management-Concept and Cases”, 11th Edition
3. Chase and Aquiliano “Production and Operations Management”, 7th Edition
4. Eugene F. Brigham and Louis C. Gapenski “Financial Management”, 8th Edition
5. Richard A Brealey and Stewart C. Mayers “Principals of Corporate Finance”, 5th Edition

REFERENCES

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APPENDIX

Income Statement of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Turnover	477,510	461,292	473,846	529,842	604,454	680,707	754,586	842,943	1,021,890	1,046,682
Cost of sales	(347,036)	(300,417)	(301,106)	(335,933)	(383,907)	(441,133)	(490,151)	(535,117)	(642,553)	(601,178)
Gross Profit	130,474	160,875	172,740	193,909	220,547	239,574	264,435	307,826	379,337	445,504
Operating expenses	(54,231)	(63,450)	(67,890)	(79,946)	(93,184)	(143,832)	(167,748)	(200,265)	(188,211)	(203,653)
	76,243	97,425	104,850	113,963	127,363	95,742	96,687	107,561	191,126	241,851
Other Income	11,913	13,881	25,928	32,989	13,105	3,259	4,304	41,772	2,669	3,698
Profit Before Interest and Taxes	88,156	111,306	130,778	146,952	140,468	99,001	100,991	149,333	193,795	245,549
Interest Charge						(11,101)	(17,605)	(22,288)	(30,357)	(25,668)
Workers Profit Participation Fund	(4,408)	(5,565)	(6,539)	(7,347)	(7,023)	(4,395)	(4,169)			
Profit before tax	83,748	105,741	124,239	139,605	133,445	83,505	79,217	127,045	163,438	219,881
Taxation	(38,000)	(29,380)	(45,600)	(47,996)	(52,345)	(24,111)	(5,600)	(8,500)		
Parent Company									(17,000)	(16,000)
Share of Subsidiary									(122)	(223)
Profit available for appropriation	45,748	76,361	78,639	91,609	81,100	59,394	73,617	118,545	146,316	203,658
Appropriation:										
Dividend - proposed	29,591	39,314	45,655	123,649	50,728	38,046	45,655	57,829	60,873	60,873
General reserve:	11,909	37,064	32,984	(32,040)	30,106	15,316	13,329	28,424		
Parent Company									60,017	97,499
Share of Subsidiary									182	334
Tax holiday reserve	2,117				266	6,032	14,633	32,292	25,244	44,952
Non-distributed Special Reserve	2,131	(17)								
	45,748	76,361	78,639	91,609	81,100	59,394	73,617	118,545	146,316	203,658

Appendix Two

Balance Sheet of BOC Bangladesh Limited

Year		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Fixed Asset	After considering Acc. Dep.	211,204	279,943	273,235	339,004	704,027	735,929	763,728	1,009,421	1,100,734	1,316,266
	Goodwill									3,374	3,134
	Investment in subsidiary					20	20	20	20		
Total Fixed Asset		211,204	279,943	273,235	339,004	704,047	735,949	763,748	1,009,441	1,104,108	1,319,400
Current assets	Stocks	174,789	124,886	140,135	102,325	121,339	195,507	188,974	203,028	211,047	195,955
	Debtors	87,538	66,444	86,657	79,911	88,209	91,146	23,134	30,360	34,354	37,274
	Advances, deposit & Pre Pay							63,317	53,579	54,958	78,754
	Cash in hand	112,436	239,772	273,901	273,515	380	649	1,021	724	497	870
		374,763	431,102	500,693	455,751	209,928	287,302	276,446	287,691	300,856	312,853
Current liabilities	Bank overdraft (secured)					(3,264)	(135,454)	(127,231)	(102,881)	(87,386)	(34,094)
	Short term bank loan								(15,486)	(24,444)	(76,497)
	Trade creditors	(673)	(1,347)	(2,533)	(3,035)	(13,012)	(2,071)	(3,796)	(3,291)	(4,394)	(4,577)
	Exp. creditors & accruals	(10,450)	(6,376)	(15,607)	(14,723)	(24,519)	(29,667)	(34,600)	(62,657)	(71,390)	(52,328)
	Sundry creditors	(58,976)	(62,299)	(66,253)	(104,110)	(99,660)	(91,156)	(107,664)	(119,939)	(154,640)	(150,722)
	Taxation	(65,677)	(55,424)	(51,268)	(55,833)	(72,654)	(50,768)	(27,050)	(25,471)	(30,415)	(33,360)
	Proposed dividend	(16,909)	(26,632)	(45,655)	(47,558)	(50,728)	(38,046)	(45,655)	(57,829)	(60,873)	(60,873)
		(152,685)	(152,078)	(181,316)	(225,259)	(263,837)	(347,162)	(345,996)	(387,554)	(433,542)	(412,451)
Net current liabili.		222,078	279,024	319,377	230,492	(53,909)	(59,860)	(69,550)	(99,863)	(132,686)	(99,598)
		433,282	558,967	592,612	569,496	650,138	676,089	694,198	909,578	971,422	1,219,802
Long Term Liabili.	Long term bank loan								(149,177)	(124,733)	(228,925)
	Deferred liabilities	(10,506)	(12,009)	(12,670)	(21,594)	(28,513)	(33,116)	(23,263)	(28,750)	(29,330)	(30,734)
Net Total Assets		422,776	546,958	579,942	547,902	621,625	642,973	670,935	731,651	817,359	960,143
	Financed by										
	Share capital	126,819	126,819	126,819	126,819	126,819	126,819	152,183	152,183	152,183	152,183
	Revaluation reserve	56,605	143,740	143,740	143,740	187,091	187,091	182,910	182,910	182,910	182,349
	Tax holiday reserve	16,861	16,861	16,861	16,861	17,127	23,159	17,452	49,744	42,696	62,404
	General reserve	217,450	254,514	287,498	255,458	285,564	300,880	318,390	346,814	439,570	563,207
	Non-distributed reserve	5,041	5,024	5,024	5,024	5,024	5,024				
	Shareholders equity	422,776	546,958	579,942	547,902	621,625	642,973	670,935	731,651	817,359	960,143
		422,776	546,958	579,942	547,902	621,625	642,973	670,935	731,651	817,359	960,143

Appendix Three

Key financial ratio analysis of BOC Bangladesh Limited

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
LIQUIDITY										
Current	2.45	2.83	2.76	2.02	0.80	0.83	0.80	0.74	0.69	0.76
Quick, or acid test	1.31	2.01	1.99	1.57	0.34	0.26	0.25	0.22	0.21	0.28
ASSET MANAGEMENT										
Inventory turnover	2.73	3.69	3.38	5.18	4.98	3.48	3.99	4.15	4.84	5.34
Days sales outstanding (DSO)	66.00	51.85	65.84	54.30	52.54	48.20	11.04	12.97	12.10	12.82
Fixed assets turnover	2.26	1.65	1.73	1.56	0.86	0.92	0.99	0.84	0.93	0.80
Total assets turnover	0.81	0.65	0.61	0.67	0.66	0.67	0.73	0.65	0.73	0.64
DEBT MANAGEMENT										
Total debt to total assets								13%	11%	19%
Times-interest earned (TIE)						8.92	5.74	6.70	6.38	9.57
PROFITABILITY										
Profit margin on sales	10%	17%	17%	17%	13%	9%	10%	14%	14%	19%
Basic earning power	15%	16%	17%	18%	15%	10%	10%	12%	14%	15%
Return on total assets (ROA)	8%	11%	10%	12%	9%	6%	7%	9%	10%	12%
Return on common equity (ROE)	11%	14%	14%	17%	13%	9%	11%	16%	18%	21%
MARKET VALUE										
Earning per share (EPS)	3.61	6.02	6.20	7.22	6.39	4.68	4.84	7.79	9.61	13.38
Price/earnings (P/E)	2.77	1.66	1.61	1.38	1.56	2.14	2.07	1.28	1.04	0.75

Questionnaire for the Executives of BOC Bangladesh Limited

Confidential: This information will be used only for the academic purpose

Name:

Designation:

Associated with BOC Bangladesh limited for the last _____ years.

1. What is your principal function in BOC Bangladesh Limited?



2. On the basis of work environment, company's policy for the customers and the company's benefit, among the different Multinational Companies of Bangladesh which rank you want to provide for BOC Bangladesh Limited?



_____ Place.

3. What you perceive about the strengths of BOC Bangladesh Limited?



4. What problems (related to organization and customers) you are facing from different external and internal factors to perform your functions?



5. Would you please suggest some points for further development of BOC Bangladesh Limited?



Questionnaire for the Customers of BOC Bangladesh Limited

Confidential: This information will be used only for the academic purpose

Name: _____

Is related with _____ business for the last _____ years.

1. What products of BOC Bangladesh Limited you are using?

<input type="checkbox"/> ASU Gases	<input type="checkbox"/> Dissolved Acetylene
<input type="checkbox"/> Welding Electrodes	<input type="checkbox"/> Others (specify)_____.
2. The reasons for using products of BOC Bangladesh Limited.
 - Reputation
 - Availability of product
 - Better product quality
 - Better customer service
 - Personal relation
 - Others (specify)_____.
3. What are the facilities the competitors of BOC Bangladesh Limited are providing?

<input type="checkbox"/> Availability of product	<input type="checkbox"/> More credit
<input type="checkbox"/> Better product quality	<input type="checkbox"/> Discount and premium
<input type="checkbox"/> Better customer service	<input type="checkbox"/> Less monitoring
<input type="checkbox"/> Personal relation	<input type="checkbox"/> Others (specify)_____.
<input type="checkbox"/> Less price	
4. What you like most of BOC Bangladesh Limited?
 -
5. What you dislike most of BOC Bangladesh Limited?
 -
6. Are representative of BOC Bangladesh Limited regularly visit the customers?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
7. If BOC representatives visit all the users of BOC product, will they provide some specialty?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
8. Are you satisfied with the product that you are purchasing from BOC Bangladesh Limited?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
9. Do you think BOC Bangladesh Limited is charging more?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
10. Do you think BOC Sales Center is taking long time to make an invoice?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
11. Are you satisfied with the availability of BOC products?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
12. What you recommend for the further improvement of BOC Bangladesh Limited?
 -
 -

APPENDIX SIX

TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
A.K. RRM	Karimullar bagh, Postogola	Shamir Chandra Kar (CEO) Mohiuddin	7410365	1200				
Al-Islam Steel Mill	Kadomtoli, Shampur	Mr. Nazrul Islam	017520590		4000			
Al-Amin Metal & RRM	Karimullar bagh, Postogola	MD. Shafiullah Shikder (CEO) Mazaher Ali (Manager)	7411024	7000	3000			
Al-Hadeed RRM	Kutubpur, Pagla, N.Ganj.	Hazi Afzal Hossain (CEO) Mr. Zahid Hossain Mr. Rubel Alam Mr. Nil Mohon	9604173	3000	3000			
Aliganj Iron Works	Aliganj, Fatally, N.Ganj.	Abdul Awal Mr. Babul Mr. Monirul Islam	9711715	2500				
Asia RRM	Shampur, Postogola	Mr. Sabu Mozzammel Haque Hemayet uddin Khabiruddin			1500			
Azad RRM	Postogola	Hasan uddin Ahmed Director			8000			
Azmiri RRM	Dapa, Fatullah	Mr. Alauddin Mr. Jamal Fokir(C) Amir Hossain	017790155	1000				

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Binimoy Steel RRM	Kutubpur, Pagla, N.Ganj.	Haji Imanuddin Badal Mr. Dulal Mr. Dewan Mr. Monir	7604139 7604143	2500				
Bismillah RRM	Sarulia, Demra.	Mr. Moiz Ahmed (CEO)	7513087(R)			1500		
The Rani RRM	Kadamtoli, Shampur, Postogola	Mr. AbulBashar(CEO) Mr, Nur-E-Alam Harunur Rashid	017699046 011868464		2000			
Chakda RRM	Kutubpur, Pagla, N.Ganj.	Hazi Sirazul Islam (CEO) Md. Shajahan Mr. Zakir Mr. Jahirul Hoq	243417 017685809 017533087		6000			
Chistia RRM	Dapa, Idrakpur, Fatullah, N.Ganj.	Samidul Alauddin (Contactor)		-	-	-	-	Sick
City RRM	Konapara, Demra	Mr. M. A. Jalil (GM) Mr. Monwarul Islam	7600027 7600007	3000				
Dhaka RRM	Demra Road, Jatrabari, Dhaka	Habibur Rahaman		-	-	-	-	Sick
Diamond Steel Product Ltd.	Shampur, Postogola	Hazi Abdur Rahim (CEO) Mr. Kamal (Manager)	9563004 9558583		10000			
Fatema RRM	Aliganj, Fatullah, N.Ganj.		7604076		3000			

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Fatullah Steel RRM	Fatullah, N.Ganj.	Mr. Mohammad Ali (CEO) Mr. Anjit Kumar (Manager)	9714681	1000	11000			
Goladen RRM	Nandalalpur, Pagla, N.Ganj.	Motaher Hossain Dulal Babul	7604175 011857675	1000				
Hamid Steel RRM	Kamalpur, Pagla,	Mr . Helal Jahirul Islam Abul Kashem		2500				
Hanif Steel Ltd.	Shampur, Postogola	Mr. Hanif (CEO) Mr. Jotindra Mohon (Manager)	248280			3000		
Haq Steel Complex	Fatullah, N.Ganj.	Mozammel Haque (MD) Mr. Rafiq Mr. Yusuf	9716908 9715263 011850201	600				
Hasan RRM	Shampur, Postogola	Mr. Moinul Islam Mujibur Rahaman			4000			
Khadem RRM	Demra					500		
Islam Steel RRM	Nandalalpur, Pagla, N.Ganj.	Hazi Nurul Islam (CEO) Tapan Biswash anager	7604488	1500	2500			

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Jewel RRM	Kutubail, Fatullah,	Mr. Abbas Mr. Motaleb Mr Jweel	7611184		2500			
Kajla Steel RRM	Kajla, Demra road	Mr. Khallilur Rahman (CEO) Mr. Sayeed (Manager)	7514658	1000	2000			
Kanika Steel RRM	Shampur, Postogola	Hazi Alinoor Mr. Jahangir Kabir	7415043 017616730	650	1500			
Metropolitan RRM	Sarulia, Demra	Mr. Mahbub Alam Mr. A K Azad	017537857 017320140	1500				
Modern Structure	Kamalpur, Pagla,	Mr. M A Mazid Mr. Yakub Ali Babul	017562035		3500			
Mohammadi Steel	Demra	-	-	-	-	-	-	Access Denied
Molloy RRM0	Kutubpur, Pagla,	Mr. Liton		-	-	-	-	Sick
MS Rahman Steel	Shampur, Postogola	Amir Hossain				500		
Nabi Steel Industry	Police Station, Pagla,	Mr. Hanif Samidul Haque (C)			2500	500		
New Lion Steel RRM	Postogola	Mr. Moslehuddin Mr. Lutfor Rahman (Manager)	017523742					

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Nine Star Steel RRM	New Jurain Postogola	Shafiqur Rahaman Moklesur Rahaman		2500	2000			
Orient RRM	Kadamtoli, Shampur	Mr. Sirajul Islam Motaher Hossain Ali Akbar	246137		5000			
Padma RRM	Medical road, Jurain	Saiful Islam Khokon		6000				
Pioneer RRM	Shampur, Postogola	Tofazzal Hossaion Harun / Babu		4000				
Prime Steel RRM	Nandalalpur, Pagla, N.Ganj.	Abdul Awal (CEO) Waliullah (Manager)	7604283 017695170		8000			
Progoti RRM	Jurain, Postogola	Humayun Kabir		2500				
Quality Traders & RRM	Kadamtoli, Shampur, Postogola	Alauddin (MD) Bazlur Rahaman		1500				
Royal Steel RRM	Postogola	Mr. Shahabuddin Mr. Firoz		1500	1500			
Rupali RRM	Shampur, Postogola	Mr. Pavel Mr. Hasan Miah Mr. Shawkat Hossain	018242614 017819143	8000				
Sarder Steel RRM	Daila, Demra road	Babul Ranjan Dey Mr Jan-e-Alam	011852741	500				
Shafqat Specialized	Nandalalpur, Pagla,	Mr . Motaleb				500		

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Shahjahan RRM	Dapa, Idrakpur, Fatullah, N.Ganj.	Mr. Shahjahan (CEO) Mr. Abul Kalam Azad (Manager) Radha Govida Paul	9712871	5000				
Shah Fateullah RRM	Dapa, Fatullah	Mr. Bishu Anisul Ahsan Chy	7604265 017532641			500		
Shilpi RRM	Kutubail, Fatullah,	Mr. Billal		3500				
Sufia RRM	Demra road, Dhaka	Mr. Mobarak Hossain	017625132		1000			
Sumon & Sons RRM	Postogola	Mr. Alam Motiur Rahaman Bhola Chowhan	7410162 7410912 011850572	2000				
Sun Steel RRM	Shampur, Postogola	Mr. Mahbub Alam Monir Hossain Liton	017534286	10000				
Sunmoon RRM	Demra road, Dhaka					300		
Salam Steel RRM	Shampur, Postagola	A. Salam Mr. Islam		350				
Taranagar Steel	Post Office road, Fatullah	Shafiuddin (Owner) Mofizur Rahaman	9712407 9714892	500				
Taz Industry	Shampur, Postogola	Md Mahabubul Alam Md. Joynal Abedin	7415107	4000				

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TOTAL MARKET POTENTIAL OF RE-ROLLING MILLS

Name	Location	Contact Person	Phone #	BOC Volume m3	DSPL Volume m3	SOL Volume m3	ROL Volume m3	Remarks
Unique RRM	Shampur, Postogola	Mr. Sirajul Islam Mr. Shahin	017538057		2000			
United RRM	Shampur, Postogola	Mr. Humayun Kabir Mr. Abdur Qayum Mr. Mokter Hossain	017695635 017533312 ®	2500				
Zerin Industry	Shampur, Postogola	Mr. Mobarak Hossain Mr. Shuvo Miah Nurul Islam	017687546	2000				
Al-Mokaddin	Nandalalpur, Pagla	Hazi Nurul Islam Md. Nabi Hossain	017696746	2500				
Rahima Ispat	Balurmah, Shampur	Saiful Islam Khokon		3000				
			Total	91,800	89,500	9,300		