

Report on
The Supply Chain & Operations Management of
Alliant Energy Solutions (BD) Ltd.

By
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An internship report submitted to the **MBA Program, Brac Business School** in
partial fulfillment of the requirements for the degree of
Master's in Business Administration

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Declaration

I, Md. Minhaz Masrur Haque, hereby declare that:

1. This internship report is my original work, produced during my degree at Brac University.
2. The content of the report does not include any material previously written or published by others unless cited properly.
3. This report has not been submitted or accepted for any other degree or diploma at any other institution.
4. I have acknowledged all sources of assistance used in this report.

Student's Full Name & Signature:

Md. Minhaz Masrur Haque

Student ID– 22164010

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Associate Professor, MBA Program, Brac Business School
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Co-Supervisor's Full Name & Signature:

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Letter of Transmittal

Dr. Mozammel Mia

Associate Professor,

MBA Program, Brac Business School

Brac University

Kha 224, Bir Uttam Rafiqul Islam Ave, Dhaka 1212

Subject: Letter of Transmittal for Internship Report Submission.

Dear Sir,

It is with great enthusiasm that I submit my internship report, "**The Supply Chain & Operations Management of Alliant Energy Solutions (BD) Ltd.**" Throughout my employment at Alliant Energy Solutions (BD) Ltd., as an Executive in Procurement and operations, I have gathered valuable practical experience, which is reflected in this report.

This report combines the knowledge gained from my MBA courses with hands-on experiences at the company. I have done my best to present relevant data and insights within the scope of the topic.

Thank you for your guidance throughout this project. I trust that the report will meet your expectations.

Sincerely yours,

Md. Minhaz Masrur Haque

Student ID- 22164010

MBA Program, Brac Business School

Brac University

Date:

Non-Disclosure Agreement

This agreement is made between **Alliant Energy Solutions (BD) Ltd.** and the undersigned, **Md. Minhaz Masrur Haque**, a student of Brac University.

Due to my position within the organization, I have access to confidential information, which I agree to keep strictly confidential and will not share outside the company.

Md. Minhaz Masrur Haque

Student ID- 22164010

MBA Program, Brac Business School

Brac University

Acknowledgment

I deeply appreciate the support and guidance I received during my internship, which has been a significant chapter in my professional development. I extend my sincerest gratitude to Dr. Mozammel Mia, my internship program supervisor and Dr. Muhammad Azizur Rahman, my co-supervisor, for his invaluable presence and for granting me the opportunity to submit my report on “The Supply Chain & Operations Management of Alliant Energy Solutions (BD) Ltd.”

Mr. Md. Mehdi Hasan, Assistant Manager (Commercial), has been a great mentor and supervisor to me while I've been here. His constant support, wise counsel, and precious coaching were vital to my development throughout my internship.

Furthermore, I want to thank all of my colleagues at Alliant Energy Solutions (BD) Ltd. for their assistance and willingness to share information, which was crucial in completing this report.

Lastly, I would like to express my gratitude to the whole Alliant Energy Solutions (BD) Ltd. team for their cordial welcome and for providing me with an invaluable learning experience that will undoubtedly influence my future endeavors.

Executive Summary

My internship was at Alliant Energy Solutions (BD) Ltd., where I held an executive position in the procurement and operations department. In this report, I describe significant contributions and learning from that time. The company is a major player in the energy sector of Bangladesh and an authorized distributor of mtu gas generators (Rolls-Royce).

I did several tasks during my internship that were cycled in the day-to-day functioning of the company. These included demand forecasting, inventory control, management of various finance functions and coordination of trucking logistics to secure optimum truck routing. There my work contributed to making many running processes and created an improvement in the overall efficiency. Some of the key things that needed to be done were:

Inventory Management and Forecasting: By being able to forecast stock levels, I was able to keep costs down and make sure we had the needed stock for current and future projects.

Filled Position: Financial management; Responsible for tracking payments and invoices, managing cash flow properly, and ensuring that the financial processes were precise.

Transportation and Route Management Using the Strategies Vehicle Routing: I implemented vehicle routing strategy as per delivery constraints with optimal routes to reduce transportation costs and improve on-time delivery.

Operational Oversight: In addition to managing vehicle and facility management, I was also responsible for facilitating the day-to-day operations of the office.

This internship gave me valuable exposure to how a large player in the energy sector operates within the commercial complexities of Bangladesh. This opportunity helped me utilize my theoretical learnings in a real-world environment while boosting my skills in strategy, troubleshooting and operations. That moment, highlighted the need for agility and accuracy across supply chains, customer operations and team dynamics in a fast-moving business Environment.

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List of Acronyms

AESBD	Alliant Energy Solutions BD Ltd.
MTU	Motoren-und Turbinen-Union
SCM	Supply Chain Management
MW	Megawatt
MD	Managing Director
PI	Proforma Invoice
LC	Letter of Credit
EPC	Engineering, Procurement and Construction
GCB	Generator Circuit-Breaker
VCB	Vacuum Circuit Breaker
TT	Telegraphic Transfer
PO	Purchase Order

Chapter 1

Overview of Internship

A. Student Information

I, Md. Minhaz Masrur Haque, am an MBA student at Brac University with ID number 22164010. In the EEE department at Brac University, I was also a student. I have been working in the Commercial & Admin department of Alliant Energy Solutions (BD) Ltd. for the past six months as an Executive-Procurement & Operations. At BRAC Business School, BRAC University, organizational attachment is a mandatory requirement for completing the MBA program. Consequently, to fulfill this requirement, I found the job report work area of "Supply Chain Management" (SCM) under the guidance and close supervision of my supervisor, Dr. Mozammel Mia, (Associate Professor) & co-supervisor Dr. Muhammad Azizur Rahman (Associate Professor). I was assisted in locating and researching the topic "The Supply Chain & Operations Management of Alliant Energy Solutions (BD) Ltd." by my supervisor.

B. Internship Information

Currently, I am working at Alliant Energy Solutions (BD) Ltd. which is located at Priyo Prangon Tower, Flat 12/25, Plot 19, Road 17, Banani Commercial Area, Dhaka-1213, Bangladesh. I am working in the Commercial & Admin department as an Executive-Procurement & Operations under my supervisor Mr. Md. Mehdi Hasan.

C. Job Responsibilities

1.3.1 Supply Chain Responsibilities

- I. **Developing Procurement Strategies:**
 - A. Develop and implement strategies to optimize the procurement process.
- II. **Supplier Negotiation and Management:**
 - A. Negotiate with suppliers to secure advantageous terms and pricing.
 - B. Manage supplier relationships and evaluate supplier performance.

- C. Do market research to have access to the latest trends in business, as well as new providers.
- III. **Compliance and Documentation:**
 - A. Ensured that all the procurement processes complied with business and other relevant legal requirements.
 - B. Tracking paper and electronic records, ensuring documents were correct and available for future reference.
- IV. **Financial Transactions:**
 - A. The part of my responsibility besides these financial operations was to create and dispatch purchase orders A. This involves processing payments through Letters of Credit (LC) or Telegraphic Transfers (TT) to ensure the Accounts Department functions well.

1.3.2 Operations Management Roles

- I. **Inventory Management and Control:**
 - A. It was my responsibility to keep track of how much stock we had on hand and make sure that it was within prescribed levels for the operations to keep running and also be able to capture a fair amount of demand in advance.
 - B. To avoid stock shortages and surpluses, we estimated inventory demands based on consumption patterns.
- II. **Operational Efficiency:**
 - A. This is responsible for coordinating day to day operational functions with an aim of optimizing on them.
 - B. Integrate with the many other departments as to ensure that the procurement and operational objectives are in harmony.
- III. **Budget Management:**
 - A. Monitor expenditures and regulate consumption in the procuring and operating sectors.
- IV. **Decisions Based on Data:**
 - A. Enhanced Decision-making by Analyzing Operational Data providing Top Management with informative planning and forecasting.

- B. Based on the data, this approach of making inventory decisions, allotting budgets and managing resources appears seamless.

D. How The Company Benefits from Student

When I was working with Alliant Energy Solutions (BD) Ltd. as an Executive in Procurement and Operations for six months. I performed all sorts of duties within a highly charged sales and service environment. Part of my work was managing local and global procurement to ensure that our clients were provided with the finest service. This involved managing contracts, resolving vendor disputes, and handling logistics to ensure goods and services were provided as contracted.

As one of a small number of procurement professionals involved I was bound by the inflexible rules stipulated by our primary partner, Rolls-Royce. My initiative made all processes in our supply chain from procurement to final delivery, more efficient.

And built from my purchasing role, have gone above and beyond to help improve control of the inventory. I enabled reduced overstock and understock that allowed the company to deliver service in a timely manner by aligning inventory levels with demand and operational needs.

My role involved handling different administrative functions — all the way from organizing meetings, and arranging corporate events to procuring office supplies. Collaborated with different stakeholders to help host the event that directly contributed to business marketing and customer engagement goals.

I significantly improved the overall performance and efficiency of the organization by enabling it to meet its short- and long-term strategic and operational objectives through my work.

E. Outcomes

- **Streamlined Supply Chain and Procurement Timeline:** I was able to tighten the procurement timeline by optimizing my supplier negotiation strategies and logistics planning. This led to quicker delivery times and happier customers.

- **Cost Reduction:** I did use sourcing and vendor management to facilitate contribution levels in operating costs. This solution reduced overhead costs by consolidating purchases and streamlining the supply chain.
- **Compliance and Requirements Implementation:** I did an excellent job in ensuring that every procurement and supply chain process was compliant with Rolls-Royce specifications. That there have been no examples of non-compliance for the last 3 years speaks volumes about high standards.
- **Operational Management:** I implemented new administrative systems and processes that increased the overall efficiency of office operations by eliminating bottlenecks and streamlining processes within the organization.
- **Success in Event Management:** As an Operations Executive, my role was to coordinate and manage business meetings and also assist the organization at trade fairs. By deftly handling these incidences and others, I was able to elevate the company's profile while sharpening its communication with key stakeholders.

F. Challenges Faced During the Internship

This summer while interning at Alliant Energy Solutions (BD) Ltd., I had a wide variety of opportunities for learning and many challenges that proved to be frustrating, fun, and initially seemed simple but became daunting tasks once they were put into practice. Among them were:

- 1) **Understanding Organizational Culture:** In the beginning, adopting with Image within an organization's culture was a tough task due to the existing corporate setup and Internal processes. I took a while to get to know the various work ethics, protocols, and expectations — which dampened my initial productivity and acclimatization into the company culture.
- 2) **Handling Complex Procurement Processes:** More cumbersome procurement processes with overseas vendors were harder to manage effectively. It was difficult to coordinate with multiple stakeholders due to its nature involving understanding international trade regulations, negotiation strategies and logistics management.
- 3) **Juggling Multiple Activities:** Either operations or procurement, these functions often go hand-in-hand and managing both technology needs to be supported by time management and prioritization skills. Simultaneous execution of these 2 difficult tasks created a high-stress environment for timely decision-making.

- 4) **Collaborative Challenges:** Interaction was necessary, especially for working with various teams, vendors and management. The situation was worsened by some discrepancies in expectations, thus requiring clear-cut communication that led to instances of miscommunication.
- 5) **Challenges in Inventory Management:** While inventory is necessary, maintaining optimal stocks and avoiding overstocking or understocks was complicated by fluctuating demand and supply chain disruptions. Has never been easy to predict requests accurately and manage supplies on a real-time basis.
- 6) **Staying Legal:** Another big problem was to be aware of national and international laws. It had to ensure that every purchase and operation activity was in compliance with the latest rules so as to prevent any legal or operational hurdles.
- 7) **Fleet Management:** Traffic conditions, the location of numerous client sites and unpredictable delays could make logistics management challenging. Planning logistics strategically in this changing climate proved to be extremely difficult.

However, I honed my problem-solving abilities, became often more flexible and competitive and gained further insights into supply chain operations and management. These experiences have helped with personal development and prepared me for a job within the industry in the future.

Chapter 2

Organization Part

2.1 Introduction

Being an important energy sector company of Bangladesh, Alliant Energy Solutions (BD) Ltd. is an official supplier of mtu gas generators branded as Rolls-Royce. With a capacity between 1 megawatt (MW) and 2.5 MW, these robust generators play an important role in large industrial applications. The primary deliverables consist of sales followed by end-to-end after-sales services and they are meant to provide continuous support for industrial clients.

The growing industrial park of Bangladesh is forcing the demand for sustainable and efficient energy solutions. To meet this demand AESBD provides high-quality MTU gas generators, replacement parts support and complete maintenance services. This ensures that clients are provided with minimal downtime and optimal functioning efficiency.

We have a strong relationship with Rolls-Royce to guarantee top-of-the-line machinery that keeps us on par with leading technology in power generation. A steady workforce and a good supply chain, allow them to customize their offerings with various fluctuations as per the requirement of every customer which leads to higher productivity and sustainability.

As an intern, I was responsible for supply chain management to facilitate larger goals of the business with respect to procurement and operations. This section will discuss AESBD, its overview, structure and contributions to Bangladesh's energy sector.

2.2 Overview of the Company

In 2018, Alliant Energy Solutions (BD) Ltd. was created to offer their clients high-quality yet competitively priced energy solutions. The company has built a reputation over the years for good quality, and reliability in the energy space. AESBD caters to leading firms like ACS Textiles, Nannu Spinning, SkF Pharmaceuticals, Akij Group, Transcom Group and Salam Steel.

AESBD provides mtu gas generators- renowned and well-known for their efficiency & reliability- as a solution to the challenges Bangladesh is currently facing; both in terms of global sustainability agenda on one hand, and limited fuel on the other.

Apart from moving merchandise, the company also offers clients with end-to-end services. This covers everything from strategy to execution and provides evergreen solutions making AESBD a partner of choice for industries. Through its sales team, the company collaborates closely with customers to generate tailored solutions, while a project team ensures every installation is executed correctly. The after-sales support team works 24/7 to assist whenever required, minimizing any disruption in operations.

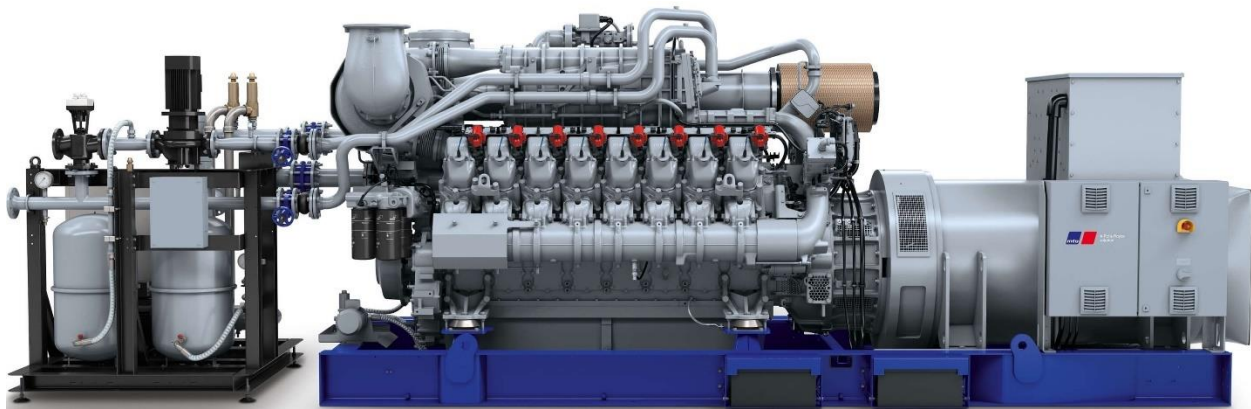


Figure: mtu Gas Genset

2.3 Organizational Structure

Alliant Energy Solutions (BD) Ltd. empowers efficiency and communication at all organizational levels through a properly devised organizational structure.

- **Board of Directors:** The company's strategic direction and corporate governance guidelines are designed at the Board of Directors level. They are at the top of the organizational hierarchy.
- **Managing Director:** The Managing Director (MD) is responsible for the operational plan and vision of a company and reports to the board directly. The MD oversees the day-to-day operations and ensures that the strategic goals of the company are achieved.
- **Departmental Structure:** MD supervises like many subdivisions, which are in charge of conducting the company smoothly. Each manager is answerable to the MD, and every department is sanctioned. Some of their duties include:

- **Sales and Marketing Department:** The sales and marketing department is responsible for generating revenue by promoting and selling mtu gas generators along with other products. Marketing plans are developed by the team, maintaining client connections, and fulfilling clients' requirements.
- **Application and Project Department:** This department solely focuses on project-related technicalities and cater solutions as per requirement to each customer. The team manages the projects across different stages to ensure everything gets executed correctly.
- **Parts and Service Division:** The parts and service division services, repairs/makes fixed schedules for the MTU generators. It also quickly processes servicing requests and keeps a record of spare parts as well.
- **Accounts and Finance Department:** This particular department is responsible for ensuring legality, proper financial stewardship through guidance of the organization's budgeting, book-keeping and financial reporting.
- **Commercial Department:** The commercial department ensures that all business transactions comply with the law and corporate policy. Most of its focus is on suppliers and procurement.
- **Administration and Logistics Department:** This part fulfills logistics and administrative duties to support the organization. At the same time, they ensure each department has what it needs to run smoothly.

- **Executives**

For the organization-wide better operational outlook, every department is backed by executives who oversee its daily functions as per the aims of that department.



Figure: Organizational Structure

2.4 Financial Performance and Accounting Practices

- **Sales and Pricing Practices**

AESBD finances its clients upon mutual agreement to sell an MTU generator, at which stage the organization enters into a financial relationship with its clients. First, AESBD offers the customer a range of bid documentation and at the price quotation provides clear identification of the scope of supply, terms of the commercial offer, and warranty documentation and any other supporting documentation. It helps to establish transparency or to support further sound decisions on the side of the customer.

- **Payment and Production**

Once the successful price negotiation is done, the customer can place an order on AESBD by issuing a Proforma Invoice (PI) to start an LC as payment security. Once we receive the LC we begin the generator manufacturing; there may be some stock available. In order to fulfill its contractual obligations, AESBD undertakes to deliver the products within the promised terms which are set forth in the Letter of Credit.

- **EPC**

AESBD not only sells generators but also provides EPC services including civil jobs, generator installation, as well as vacuum and GCB and VCB. Instead of letters of credit to finance these projects, funds are utilized via a bank transfer. Thereby maintaining focus on simplifying financial transactions, which will help create a smooth flow of corporate activity.

- **Parts Sales and Payments**

For purchasing replacement parts, AESBD requests a deposit by bank transfer. After receiving payment, the components are shipped promptly so clients can get back in business as soon as possible.

- **Accounting Processes**

AESBD remains adherent to strict accounting procedures for the confidentiality and accuracy of all financial transactions. The firm minimizes risks by using secure payment methods, such as bank transfers and letters of credit, so that the transaction will be clearly trackable. Regular audits for local, national, and international financial regulations further support the financial transparency of the company.

2.5 Summary

Operating under the name Alliant Energy Solutions (BD) Ltd. in Bangladesh since 2018, we have become a strong player in the energy sector. For many years, the company has served large industrial clients with high-performance energy solutions and has maintained a constant flow of power by exclusively distributing Rolls-Royce mtu gas generators. When your business has a power outage and you must get back on track, the mtu brand is very effective together with AESBD's expertise that has given technology to businesses.

AESBD has dedicated itself to sustainability by focusing on marketed products such as fuel-efficient gas generators that are eco-friendly. The company has made itself out to be a progressive firm that turns with the global revolution toward more environmentally sound sources and is thus moving away from the earlier calls for energy utilization and working against climate change.

Besides providing state-of-the-art products, AESBD makes the most of after-sale services & maintenance in order to minimize product downtime and continuous servicing for customers. Due to the company's strong business relationships with a large number of suppliers, and its ability to offer customized solutions, it occupies an honorable position in the industrial sector market.

In the future, AESBD intends to expand its asset base by investing in smart technology compatible with industrial needs to fulfill higher energy demand in Bangladesh. The company plans to consolidate its position in the market and retain its leadership over production with an emphasis on innovation, sustainability and operational excellence.

Chapter 03

Contributions to the Supply Chain and Operations Practices at AESBD

In this chapter, I will give a detailed description of my contributions while working as an intern with Alliant Energy Solutions (BD) Ltd. (AESBD). My main role was in operational monitoring, procurement operations and supply chain management. In each of these areas, I was actively engaged in increasing the overall productivity of the organization. As a company in the highly competitive energy sector, effective procurement/supply chain/operational workflow management enables AESBD to stay at the top of its game. Here is a brief overview of key contributions that were made to AESBD's supply chain and operations management.

3.1 Purchase and Supply Line

AESBD's high-performance industrial energy solutions to end-users are substantially enabled by effective supply chain management. I was responsible for optimizing logistics, monitoring stocks and internal and external procurement operations — all very important tasks that ensured the smooth operation of the supply chain and procurement process during my internship. The following sections outline their various contributions.

A. Alliant Energy Solutions (BD) Ltd. Foreign and Local Procurement Process.

❖ Foreign Procurement

I had the management of the international procurement processes in AESBD. Cooperation with overseas suppliers was also essential to ensure timely delivery of the parts, machinery, and components that Rolls-Royce required for its mtu gas generator installation and maintenance.

I. Identification and Selection of Supplier:

- **Market Analysis:** I conducted thorough market research in order to find suitable suppliers that may fulfill AESBD & Rolls-Royce's stringent requirements. These analyses involved

supplier performance, market trends and global trade conditions. A sample data is given below:

Date: January 2024

Suppliers Analyzed: 20

Shortlisted Suppliers: 5

I looked at criteria like commercial offer, delivery capability, Rolls-Royce standards and past performance.

- **Request for Quotation (RFQ):** I asked for prices and delivery schedules after choosing suppliers that gave the best quotes. Reviewing these quotations I contrasted multiple options on the reliability of supplier, delivery dates, quality and cost-effectiveness. A sample data is given below:

Issued RFQs: 5

Responses Received: 4

Selected Suppliers: 2 (ABC Corp., XYZ Ltd.)

Selection Criteria: Cheapest, fastest delivery turnaround time with quality assurance.

II. Negotiation and Contracting:

- **Price and Terms Negotiation:** I negotiated with the suppliers to get the most favorable terms and prices, such as payment, delivery, and requirements that fit our operations. A sample data is given below:

Associated Vendors: ABC Corp., XYZ Ltd.

Negotiation Points: Payment Schedule (30 days), Fulfillment Timeframe (within 45 days), Bulk Order Pricing Discount (~5%)

Result: Obtained a 10% discount and attractive new payment terms.

- **Contract Finalization:** After negotiation, I drafted and formalized contracts according to the laws where AESBD is located, as well as making sure that both parties understand correctly. A sample data is given below:

Date: February 2024

Contracts Finalized: 2

Key Terms: Quality standards, delivery timelines, penalties for delays.

III. Payment and Financial Transactions:

- **Letter of Credit (LC):** For large orders, I made use of LCs which secure the payment to the supplier only after receiving and inspecting the items at the destination. A sample data is given below:

Transactions: 3

Value: \$150,000

Suppliers: XYZ Corp.

Conditions: Payment upon receipt and inspection of goods.

- **Telegraphic Transfer (TT):** For smaller or urgent transactions, I used Telegraphic Transfers to ensure swift payment, facilitating quicker processing times. A sample data is given below:

Transactions: 5

Value: \$50,000

Suppliers: XYZ Ltd.

Conditions: Payment within 5 business days of shipment confirmation

IV. Shipment and Logistics:

- **Shipping Procedures:** I have worked with freight forwarders and handled the arrangement of shipping from overseas, selecting correct methods (sea, air or land) and insurance as well as compliance on international shipment regulations. A sample data is given below:

Shipments Coordinated: 5

Shipping Methods: Ocean Freight (3), Air Freight (2))

Insurance: Compensation for Sea Transport.

- **Customs Clearance:** I also handled all customs documents and processes by creating required documentation, managing payment of duties and taxes, and facilitating communication with customs personnel. A sample data is given below:

Prepared Documentation: 10 times

\$15,000 duties and taxes paid

Customs clearance time: ~3 days average per shipment

V. Receiving and Inspection:

- **Delivery and Inspection:** After the arrival of the goods, I inspected the goods to confirm that they are delivered as per certain quality and quantity specifications. Whenever there

was a mismatch, it was one of our priorities to first talk to the supplier. A sample data is given below:

Goods Received: 10 shipments

Inspection Reports: 10

Discrepancies Found: 1 (settled with supplier)

- **Inventory Management:** Upon Arrival, the Goods were entered into the system, categorized, and stored under proper conditions to preserve integrity for later use in operations.

Local Procurement

I. Collaborating With and Evaluating Suppliers:

- **Local Supplier Network:** I had a good network of local suppliers who provided various goods and services, to whom I always entered in a performance-based evaluation against company requirements.
- **Quote and Comparison:** As we did for overseas sourcing, I sent out RFQs to local suppliers and then compared their quotations to determine the optimal ones. A sample data is given below:

RFQs Issued: 10

Quotations Compared: 8

Vendors chosen: 3 (PQR Ltd., LMN Corp and DEF Supplies).

II. Negotiation and Purchase Order (PO) Issuance:

- **Negotiation:** I negotiated with local suppliers to get the best prices and conditions, usually meeting face-to-face for long-term relationships. A sample data is given below:

Suppliers Engaged: 5

Meetings Held: 8

Terms Agreed: Bulk order pricing (7% off), Flexible shipment.

- **PO Issuance:** After agreeing on terms, I issued Purchase Orders that included the exact items, quantities, prices arranged for and delivery schedules. A sample data is given below:

POs Issued: 10

Total Value: \$75,000

Delivery Time Frame for Delivery: Not More Than 15 Days

III. Payment Methods:

- **Direct Payments:** I handled direct payments by bank transfer or check for local suppliers, making sure the payment always takes place on time and with a good relationship with suppliers.
- **Advance Payments:** For some transactions (including custom or bulk orders), I handled advance payments very rigorously. A sample data is given below:

Transactions: 5

Value: \$25,000

Purchase Orders: Custom machinery parts, bulk materials.

IV. Provide Delivery and QA:

- **Location-wise Distribution:** I managed the logistics for local sourcing to ensure seamless delivery to AESBD warehouses and handled all transportation related challenges.
- **Quality Inspections:** Once I got the product, I inspected it to ensure that it meets PO requirements. I have talked with the supplier as well in case we had any issues or differences.

B. Purchase of Generator Attachments

Since my responsibility was to procure accessories for mtu gas generators, I had also general procurement responsibilities. To establish the best terms, it was important to obtain bids from multiple foreign vendors. After thorough checking, I confirmed agreements, negotiated expenses (LC or TT for payment). Once the accessories were received, they were quickly sent to all project sites where installations are continuing, ensuring that all projects will meet their deadlines.

C. Generator Part Purchasing and Replenishment

Also essential was the supervision of supplies and stocks of spare parts in order to repair generators. I was holding these in a controlled atmosphere to keep them fresh. I processed consumer orders quickly and offer all details quotations when personal requested such goods. When the customer placed a purchase order with payment, I ensured that everything went smoothly and supervised the delivery of the components and documentation.

D. Supply Chain Efficiency

I was involved in streamlining the implementation of Supply Chain processes for AESBD, ensuring that our inventory was headed out on time and generator parts were ordered on schedule. I supported their global footprint by adhering to Rolls-Royce standards while giving priority to balancing all procurement activities with the needs of operations and keeping a strong resilient supply chain.

3.2 Operations Management in AESBD

A. Forecasting and Inventory Management

What I needed to do for AESBD was determine how much inventory they should have in order to maintain minimum stock levels without exceeding their budget. My forecasting responsibilities fall into two major buckets:

I. Stock Repurchase:

- **Assessment of What Is Currently in Stock:** I used to assess existing supply regularly, identifying the need for re-stocking whilst monitoring consumption rates, allowing me to predict future needs more accurately.
- **Managing The Lead Time:** Since a majority of our suppliers were based overseas (like many other companies), I was cautious with the lead times and would plan inventory refills way in advance to ensure no delay in operations.
- **Spare Parts Demand Forecasting:** I analyzed previous sales trends and forecasted possible future demands for spare parts in order to ensure AESBD always had enough without over-purchasing. This move reduced holding costs and sped up the inventory turnover.

B. Billing and Financial Management

In terms of financial management, my main responsibilities were invoicing and paid on time. Some of the major tasks included:

- **Invoicing:** Developed detailed invoices from purchase orders and customer estimates to ensure the accuracy of all financial transactions.

- **File Management:** Hard copy and electronic copies of billing documents were put in file for tracking and follow-up on payments
- **Advance Payments Control:** I controlled every penny received to ensure all funds corresponded with the shipment orders.

C. Office Vehicle Management

My job involved the delivery and operation of the vehicles as staff mobility at its best. This includes:

- **Planning and Routing on Logistics:** Leveraging vehicle routing strategies in order to improve the delivery windows, minimizing transport costs while guaranteeing customer deliveries on time.
- **Batch the Fleet:** to maximize efficient use of resources, grouped some cars amongst teams for similar needs.
- **Repairs of Fleets of Vehicles:** I ensured all the cars were repaired & maintenance on regular basis to reduce delay and as a result, all of them were available when required.

D. Maintenance of Head Office and Decision Making

I managed AESBD's corporate office's general Maintenance, making sure every employee had an acceptable office environment. Although I had no direct role in managing the office's day-to-day chores, examples of responsibilities I had regarding this office were:

- **Office Design and Resource Management:** Making decisions regarding purchasing office supplies, equipment, and any other resources to ensure an appropriately functioning office.
- **Operational Efficiency:** Developing procedures that strategically improved workflow in the company's office, eliminated bottleneck activities, and increased overall output.

Summary

As an intern in Alliant Energy Solutions, I focused on overseeing the company's production management and supply chain operations. The main focus of my work was on overseeing our domestic and international supplies, streamlining procurement procedures, and ensuring the smooth operation of the company's logistics and inventory systems. My role in procurement and

operations was to ensure maximum efficiency while adhering to the strict regulations set by Rolls-Royce, one of our hosted companies. The procurement department 's supply chain efficiency benefited greatly from my efforts in supplier contract negotiations, finance management, and timely product delivery. Regarding operations, I made the AESBD manageable its current and future demands without increasing stock using forecasting models to cap levels of inventory. Finally, I handled tasks relating to vehicle logistics that further reduced firm costs and raised the efficiency of AESBD's supply chain operations. These projects promoted AESBD's strategic goals by improving the company's ability to use resources and their strategy to maintain requisite quality standards. The staff could now make strategic decisions, which improve customer satisfaction and operational efficiency based on improved administrative systems and data analytics.

3.3 Findings

During my time at Alliant Energy Solutions (BD) Ltd., I gained many insights into the supply chain and operations management. These results exemplify how the strategic initiatives undertaken during my internship directly improved the effectiveness and efficiency of the business overall.

I. Increased Efficiency in The Supply Chain

Perhaps the most important finding was enhanced supply chain efficiency. Shortening delivery times through optimization of supplier negotiation strategies and logistics enabled the firm to scale efficiencies in operations as well as boost customer satisfaction.

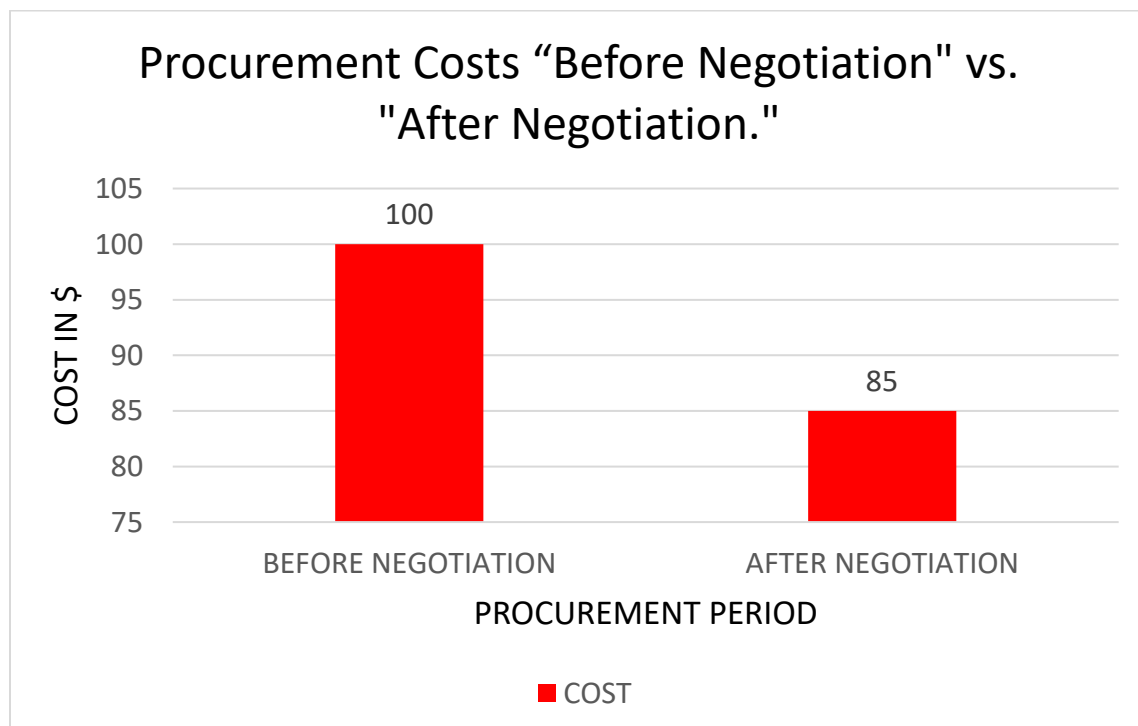
- **Negotiating with Suppliers:** AESBD developed close contact with its major suppliers to obtain at least the more reasonable terms, favorable rate & longer payment periods. By entering into long-term contacts with reputable vendors, added supply chain stability and reduced costs from procurement. Through participation in these discussions, I made sure that AESBD was receiving competitive offers and getting the business as it could delivering a much larger profit.
- **Optimization of Logistics:** Since we implemented my initial cutting-edge truck routing solution, we have been able to shorten our delivery time. We minimized transportation costs and ensured timely delivery by route optimization and simplified schedules. This

availability resulted in faster lead times for required parts and equipment, something that proved to be especially useful when ensuring the continuity of AESBD's clients.

II. Cost Reduction

Another important result of my work was the considerable cut in operational costs. AESBD applied smart sourcing and vendor management practices for these projects which resulted in significant cost benefits.

- **Bulk Purchase:** As I managed the purchases and set the terms for bulk buying from suppliers, AESBD was able to gain economies of scale. Bulk purchasing brought down the cost of materials and components per unit, and also gave leverage to the company for a better price deal in subsequent purchases. This proved to be an especially useful strategy for cutting procurement costs but maintaining the high standard with which they were synonymous — that of a Rolls-Royce. For example:
 - Before (Baseline): Average cost per unit before negotiation = \$100; Quantity = 200 units. Total cost = \$20,000.
 - After (Improvement): Negotiated cost per unit = \$85. Quantity = 200 units. Total cost = \$17,000.
 - Savings:
 $$(100 - 85) \times 200 = \$3,000$.

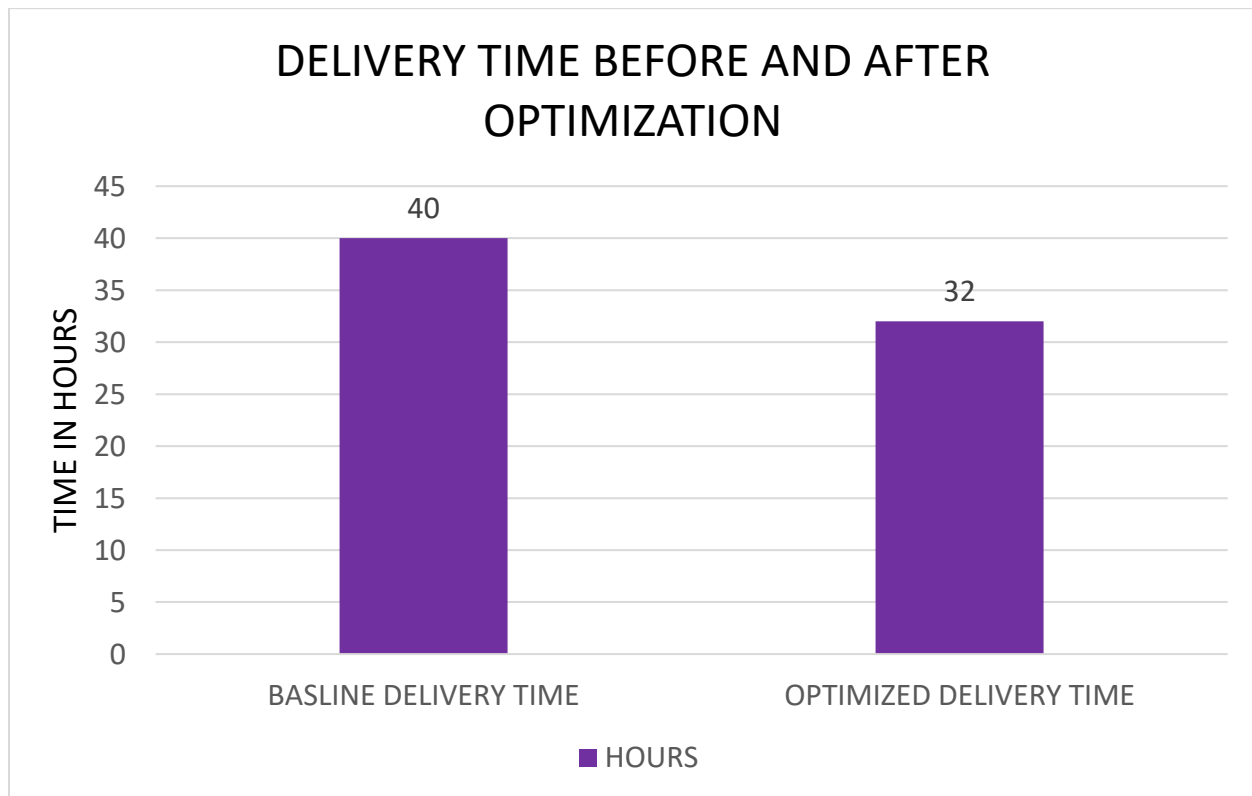


- **Consolidation of Vendor:** Fewer vendors lead to long-lasting relationships with top suppliers in the category which can be negotiated more easily with AESBD. This reduction in vendors did two things; it simplified the supply chain for management, and reduced the cost of having multiple vendors, and created savings.
- **Route Optimization:** As discussed above, this method reduced transport costs and car fuel consumption in terms of distance. By planning its deliveries and eliminating unnecessary trips, the company saved on logistics expenses as well while ensuring that it met demand in a timely manner. For example:

Baseline Delivery Time: Average = 40 hours.

Optimized Delivery Time: Average = 32 hours.

Improvement: $(40 - 32) \div 40 \times 100 = 20\%$ reduction.



III. Implementation of - Compliance and Standards

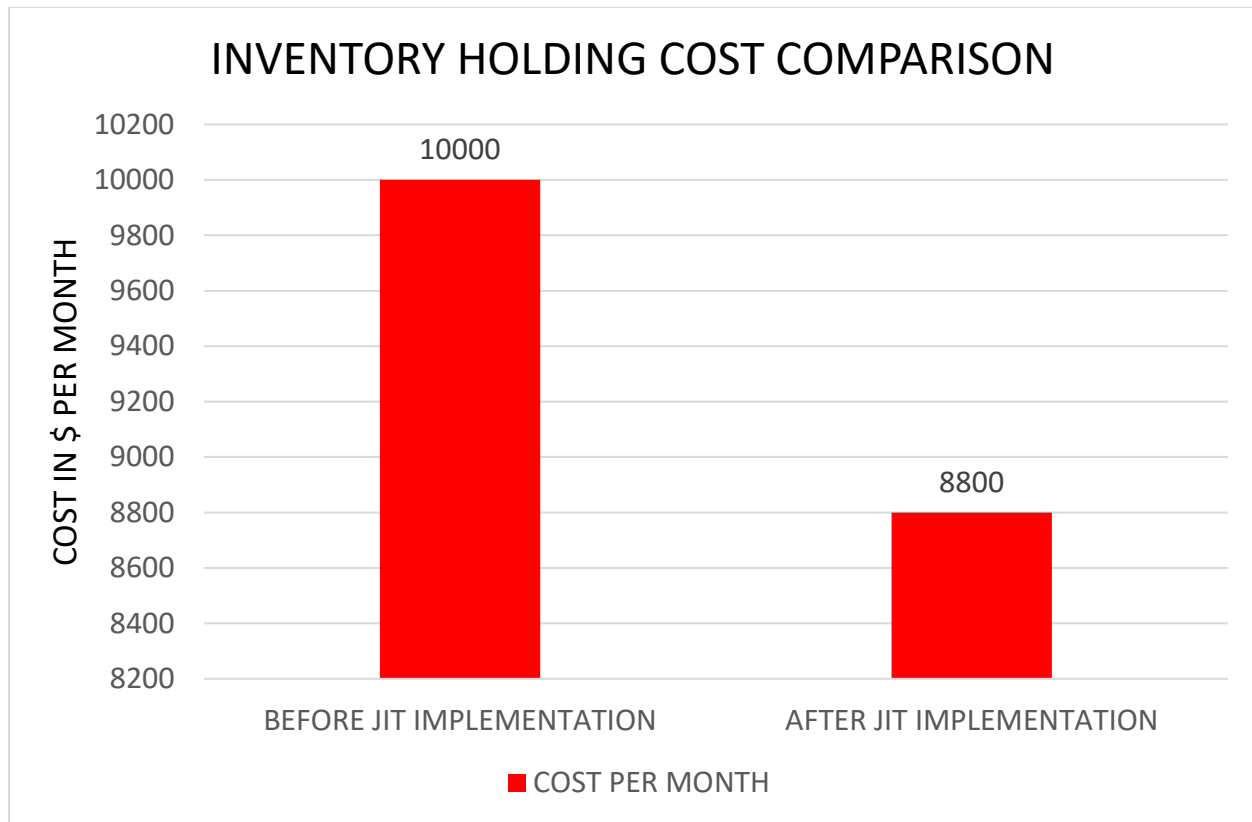
AESBD maintains high standards of quality and compliance, especially in respect of Rolls-Royce requirements. While at the company, my responsibility was to make sure that all purchasing and supply chain functions complied with these standards.

- **Quality Assurance:** We applied stringent quality checks on all inside products and services so that the firm did not face a single non-compliance issue. AESBD commitment in quality, resulted in lower potential warranty claims or product-related issues which mitigated costs and enhanced customer enjoyment.
- **Regulatory Compliance:** Due to the complicated nature of international trade regulations, especially in the energy market, I paid careful attention to making sure that all procurement processes comply with local and international law. This led to fewer legal issues and a better image for the firm as an ethical, responsible entity in their industry.
- **Supplier Audits:** Participated in periodic supplier audits to ensure compliance with AESBD stringent requirements. These audits were important in keeping the supply chain honest and ensuring our partners could consistently deliver quality products.

IV. Inventory Optimization

Another visible area where I had efforts was inventory management. Through our forecasting advancements and more stringent inventory management rules, we were able to optimize stock levels while minimizing the costs of overstock.

- **Just-In-Time (JIT) Stock:** I held fewer items at anyone time by employing JIT inventory methods. This strategy enhanced cash flow and reduced carrying costs, hence, the firm was able to utilize resources more effectively. Since it reduced the risk of products spoiling or becoming unfashionable due to age, JIT also reduce costs. For example:
 - Before JIT Implementation:
Holding costs = \$10,000/month.
 - After JIT Implementation:
Holding costs = \$8,800/month.
 - Savings: $\$(10,000 - 8,800) = \$1,200/\text{month}$.
Annual Savings = $\$1,200 \times 12 = \$14,400$.



- **Forecasting Demand:** AESBD took advantage of advanced forecasting tools, making demand predictions more accurate. This minimized the chances of stockouts or overstocking for the company, enabling its inventory to be right on point. This enabled us to increase overall inventory turnover and reduce wastage by aligning the stock levels closer to the actual demand.
- **Tracking Inventory:** After incorporating actual tracking software, I began checking stock levels in real-time and making decisions faster and more accurately. With access to this information in real-time, we were able to respond quickly to any demand changes and subsequently avoid supply chain disruptions.

V. Operational Administration

Along with supply chain management and procurement, I created other systems to advance the administrative side of the company. These changes improved workflows, minimized bottlenecks and increased organizational efficiency overall.

- **Process Automation:** I automated administrative processes like document processing and communication management, freeing up valuable staff time to focus on more strategic

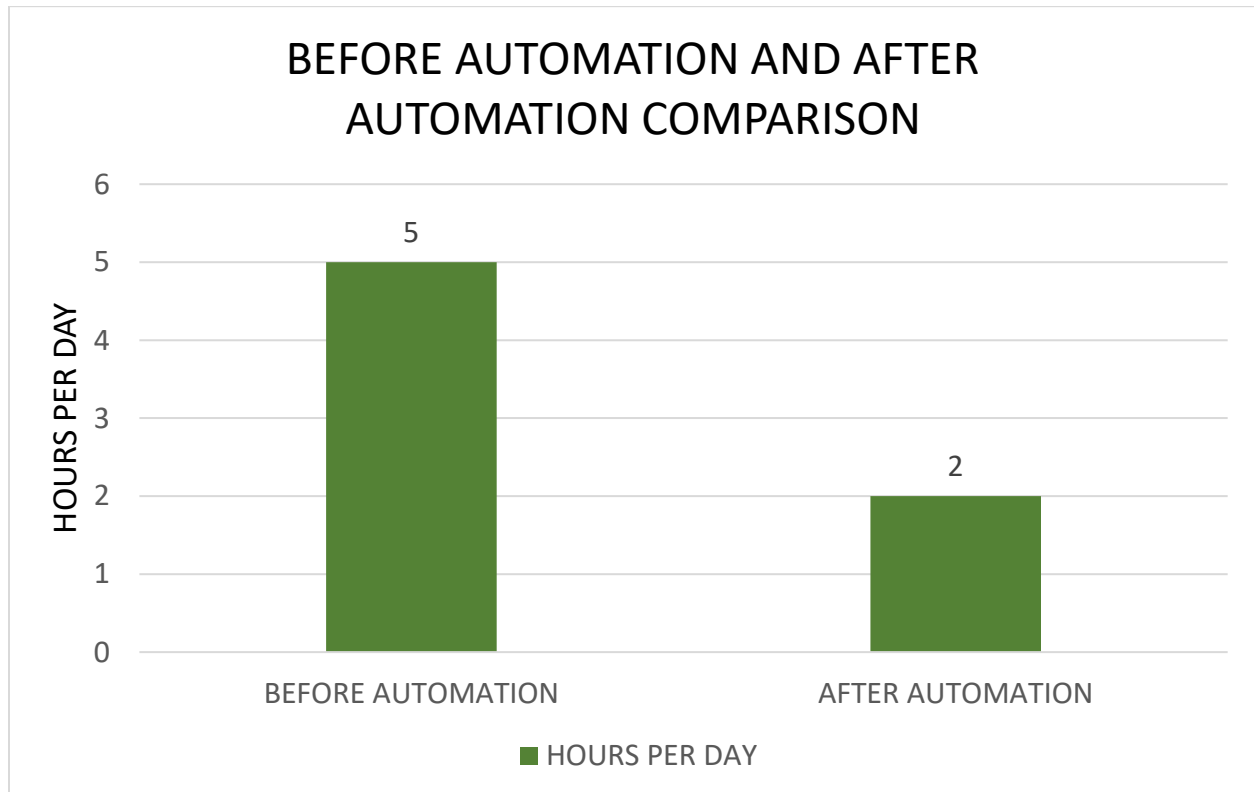
work. This streamlined operations and minimized the chances of mistakes in day-to-day processes.

Example (Document Processing):

Before automation: 5 hours/day.

After automation: 2 hours/day.

Time Saved: 60% improvement $(5 - 2) \div 5 \times 100 = 60\%$



- **Office Works:** The new workflow management technology I introduced helped streamline a ton of office processes, minimizing the chance of confusion or delays in the future. These tweaks ensured that everything within the organization worked more smoothly, increasing overall efficiency.
- **Training Employees:** I organized training activities to ensure that employees were proficient with new tools and systems. I helped the organization build their capacity to use the new technology I brought, and so increase output.

Summary

During my internship with Alliant Energy Solutions (BD) Ltd., some significant improvements were achieved in the supply chain and operations management of the organization. Secondly, I was responsible for improving supply chain efficiency through better negotiations with suppliers and optimizing logistics leading to quicker delivery times at lower prices. In addition, the installation of advanced demand forecasting and real-time tracking tools further streamlined inventory management by providing assistance on how to prevent stockouts and overstocks.

Moreover, substantial cost reductions were realized via vendor consolidation, group purchasing and strategic sourcing. These actions enhanced the management of resources by simplifying the supply chain and reducing procurement costs.

Third, AESBD's commitment to Rolls-Royce and adherence to regulatory requirements enabled it to continue delivering quality products and services with zero non-conformance. Preventative Q/C and supplier audits also helped ensure supply chain reliability.

Fourth, better forecasting habits and just-in-time (JIT) inventory strategies led to better demand management that enhanced cash flow, reduced holding costs, and enabled on-time delivery of essential components.

Ultimately, process automation and workflow optimization brought in more efficient operational management and therefore functionally productive offices as well as better day-to-day operations.

Chapter 4

Conclusion

My internship at Alliant Energy Solutions (BD) Ltd. provided me wonderful chance to practice business principles I learnt in university in real life. My experience as an executive in procurement and operations allowed me to understand supply chain and operational management from a strategic perspective in the fast-moving, highly competitive energy industry.

During my internship, I worked with worldwide sourcing, and improved inventory management and logistics among various other initiatives that contributed significantly to the operation of the company. Such inputs ensured higher efficiency and cost-effective operations of AESBD, along with an increased quality, reliability, and compliance culture in the company.

The key takes away from the experience has been the necessity of strategic planning in supply chain management. And I was able to help AESBD defrayed costs and get operational performance by leveraging with vast forecasting methodologies, and situations of the vendor in a network. It brought home an important lesson about data-driven decision-making, and it reinforced the centrality of technology in supply chain management today.

My participation in day-to-day operations of the company likewise proved to me that flexibility and adaptability are really important while handling a fast-paced work environment. Struggling with regulatory hurdles, supplier delays and juggling multiple projects has sharpened my problem-solving abilities; it also broadened my perspective on the operational difficulties that companies encounter.

All in all, this internship has motivated me to consider a potential career path in supply chain & operations management for the years to come. Practical training exercises with AESBD gave me a solid background in operational efficiency, logistics optimization and strategic procurement. I certainly know these skills will come in handy whenever I am trying to advance my career whether it be the energy sector or any industry that requires good supply chain management.

As a whole, I would consider my time at AESBD as transformative offering me a richer insight into supply chain and operations management, while also helping me hone the soft skills that are required to become successful in this field. I am sure that everything I learned will aid me as I

progress my career and thank you to Alliant Energy Solutions (BD) Ltd for allowing me to contribute towards the development of such a great company.

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