



Internship Report on Inventory Management at Tiger New Energy Ltd

Sk. Adnan Ahmed

This report is submitted to the school of Business and Economics, United International University as a partial requirement for the degree fulfillment of Bachelor of Business Administration

Inventory Management at Tiger New Energy LTD

Submitted to:

Dr. Saad Hasan

Associate Professor

School of Business & Economics

Submitted by:

Sk. Adnan Ahmed

111212056

Supply Chain Management

Registration Trimester: Fall 2025



School of Business and Economics
United International University

Date of Submission: November 22, 2025

Letter of Transmittal

November 22, 2025

Dr. Saad Hasan

Associate Professor

School of Business & Economics (United International University)

Subject: Submission of the Internship Report on " Inventory Management at Tiger New Energy Ltd ".

Respected Sir,

It is an honor for me to submit my Internship Report on " Inventory Management at Tiger New Energy Ltd "done under your supervision as a prerequisite for my Bachelor of Business Administration in Supply Chain Management degree. The report is prepared following your guidelines and course instructions, and it summarizes my experience and insights gained during my stay in the organization. Throughout my internship, I was working closely with various aspects of the supply chain, including warehouse management, monitoring customer demand, procuring products accordingly, inspecting and checking product quality, and cataloging items in the internal inventory data system. I also needed to track stock levels, ensure the availability of required items, and regulate the movement of goods through accurate inventory tracking. I have tried to prepare this report with accuracy and usefulness based on my expertise and the primary and secondary data collected. Thank you for your guidance and support during the study.

I hope you will find this report informative and comprehensive, and I am ready to explain any clarification or inquiry you may have.

Sincerely,

Sk. Adnan Ahmed

ID: 111 212 056

BBA in Supply Chain Management

Certification of Similarity Index

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Declaration of the Student

I, Sk. Adnan Ahmed, a student of the Bachelor of Business Administration program at United International University, hereby declare that this report is entirely my own work. I have not knowingly violated any copyright regulations, and to the best of my knowledge, this report is an original and authentic piece of work.

Furthermore, I confirm that this report has not been submitted, in whole or in part, for the purpose of obtaining any degree or certificate at any other institution.

I have strictly followed all academic rules and guidelines in the preparation of this report.

Sk. Adnan Ahmed

ID: 111212056

Date: November 22, 2025

Corporate Evidence

REF: TNE/HR/EC-020

CERTIFICATE OF EMPLOYMENT

THE FOLLOWING CERTIFICATE IS GIVEN TO

Sk. Adnan Ahmed

.....

This is to certify that Sk.Adnan Ahmed, son of Late Md Saiful Kabir, has completed his internship program at Tiger Battery Co., Ltd. a sister concern of Tiger New Energy Co., Ltd. from 15 August 2025 to 18 November 2025



Supervisor

Acknowledgement

First of all, I would thank to Almighty Allah who granted me the power, patience and ability to accomplish this internship program as well as write up this professional report.

I would also like to express my deep sense of gratitude to Dr. Saad Hasan, Associate Professor, School of Business & Entrepreneurship, United International University for his valuable advice and suggestions as well as constructive criticism during the preparation of this report. His guidance has been impactful in influencing my thinking about the principles of supply chain management.

I would like to express my sincere appreciation to Tiger New Energy Ltd for giving me the chance to be an intern in their great company. A big thanks to the entire Supply Chain Management team for their co-operation, support and direction throughout my three-month long internship.

Special thanks to my in-field supervisor and inventory management team for teaching me hands-on supply chain operations, inventory control systems and warehouse management. I have greatly benefited from their down-to-earth wisdom.

I also want to say a big thank you to my fellow interns and coworkers at Tiger New Energy Ltd. who were the best sidekicks a girl could ask for, more than that they make my internship impactful by collaborative efforts and friendships.

Last but not least I would like to thank my family and friends for their endless support, encouragement and understanding during my internship period and the composing of this report.

Thank you all for your contribution in making our learning meaningful and worthwhile.

Executive Summary

This report of internship provides the detailed analysis of Supply chain management practices in Tiger New Energy Ltd. with a focus on inventory management and warehousing operation. The training lasted for three months on the practical attachment from 15 August 2025 to 18 November 2025 in Supply Chain Management department.

Founded in 2021, Tiger New Energy Ltd is a leading enterprise in the renewable energy industry of Bangladesh, engaged in manufacturing of batteries and battery swapping solutions for Electric vehicles (EV) Launched by start-up secured formalization initiated through two Harvard MBA graduates, Nicole Mao and Yiwei Zhu, within the broad goal of providing rich mobility solutions to the people in developing nations. The company has 134 people and two subsidiaries (Tiger Battery Co., Ltd., Tiger Lithium Co., Ltd.), making it one of the major sustainable energy solution leaders. This report will discuss Tiger New Energy Ltd inventory management and the features of its warehouse. The company uses an advanced -- Hybrid Inventory Management System that involves manual cross checks with Automatic ERP through Odoo software. This two-pronged approach ensures the utmost accuracy in tracking raw materials, works-in-progress inventory and finished batteries all while delivering process efficiency and cost-savings.

Among the most significant findings from the internship are:

- The smooth running Odoo ERP system for real-time inventory management and traceability throughout the supply chain
- Utilizes FIFO (First-In-First-Out) battery inventory management to ensure quality and reduce obsolescence
- Application of ABC analysis in the classification of inventory items by value and significance
- Efficient warehouse management methodologies such as racking, safety norms, quality norms

- Application of technologies to streamline the supply chain to improve efficiency

The intern was given practical exposure to all day-to-day operations that are involved in a supply chain like daily inventory, stock reconciliation, processing of orders, follow-up with procurement and production team as well as how to maintain warehouse of company. The implementation of classic theories on a real business case provided new and valuable insights into the behavior of a supply chain within the renewable energy industry.

This report also offers an examination of the operational strengths, challenges and opportunities for the company in the context of Bangladesh's expanding renewable energy sector. It appears that Tiger New Energy Ltd has developed good supply chain systems which are efficient and yet have reasonable level of accuracy and there can still be some amount of process automation and optimization.

The report ends with some suggestions for increasing supply chain efficiency: increased automation, advanced forecasting methodologies, better supplier relationship management and personnel training. The internships have proved valuable in career development following exposure as well to the hands-on complexity of supply chain management in the emerging markets.

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List of Acronyms & Abbreviations

BBA	Bachelor of Business Management
ERP	Enterprise Resource Planning
EV	Electric Vehicle
FIFO	First In, First Out
LIFO	Last In, First Out
ABC	Action-Based Categorization
WIP	Work in Progress
RM	Raw Materials
FG	Finished Goods
SKU	Stock Keeping Unit
JIT	Just in Time
EOQ	Economic Order Quantity
SCM	Supply Chain Management
SWOT	Strengths, Weaknesses, Opportunities and Threats
KPI	Key Performance Indicator
SOP	Standard Operating Procedure
QC	Quality Control
UIU	United International University
F.C	Frequent Customer
B.C	Business Customer

CHAPTER 1: INTRODUCTION

1.1 Background of the Report

Supply chain has thus been placed in the current business environment in the world. SCM as an important determinant of competitive advantage and organizational performance. effectiveness of inventory control systems and warehouse management practices. Operational excellence, particularly in manufacturing verticals, is based on these. As industries all over the world are embracing sustainable usages, renewable the energy market has seen an unprecedented rise and is redefining models in supply chain processes.

The internship report based on practical experience for a period of 3 months at Tiger New Energy Ltd. which is one of the pioneer companies in Bangladesh involved in the Renewable Energy and Battery Technology sector. It was an obligatory part in the Bachelor in association with United International University, is running the BBA program. forward the theoretical knowledge gained through classroom studies into practical Exposure in an actual business working environment.

Tiger New Energy Ltd. is part of an increasing lineage of socially conscious technology companies. Founded in 2021, responsible business initiatives in Bangladesh which are now focusing on the manufacturing of batteries and solutions for battery-swapping electric vehicles. The company's unique strategic focus on clean mobility solutions has become interesting. Setting to explore contemporary supply chain issues and potential in emerging markets. It is a major study and practice in integrated studies that include inventory. management and the warehousing facilities and transportation parts provided by one organization or several together. The desire to do this internship was from a strong interest in finding out how theoretical supply chain concepts are put into practice, especially in an extremely fast-growing industry sector. The renewable energy supply chain, with its distinctive inventory requirements— both, from per materials process

making of battery to material commodities into finished product – offers interesting case studies for academic study and industry training.

From August 15 to November 18, 2025, I worked as an intern in the Supply Chain Management department and had developed practical skills in inventory management, warehouse operation, ERP system application and cross-functional communication. This hands-on experience was insightful of the challenging task of managing supply chains in today's fast-paced business environment, and it contributed to the effectiveness of the organization in terms of operations.

This article provides a full-scale learning example of analyzing supply chain practices of Tiger New Energy Ltd. in the light of academic frameworks and echoes the practical view on inventory and warehouse management. The findings and recommendations provided are intended to enhance the supply chain both theoretically and practically.

1.2 Objectives of the Report

This internship report is written with certain objectives in mind which inform its structure, content and analysis. The objectives must meet both the academic aims and stakeholder value. Primary and secondary aims are shown as follows:

Primary Objectives:

For the purpose of analyzing the inventory management practices of Tiger New Energy Ltd, to examine their performance in controlling stock levels

to look at warehouse management practices and to determine the effectiveness of storage, handling, and distribution activities

To gain knowledge on how ERP (Odoo) shall be implemented and used to simplify the supply chain operations.

To record experiential learning and its link to academic theory related to SC management

Secondary Objectives:

A complete report of Tiger New Energy Ltd. such as its strategic plans, organization structure and the company's strengths and weaknesses

To SWOT analysis the company and renewable energy industry of Bangladesh

To understand the barriers and enablers in supply chain operations of renewable energy industry

To advance actionable ideas for improving supply chain productivity and efficiency

To discuss how you developed as a future professional or acquired new skills and knowledge related to your internship experience.

To contribute to the academic knowledge on the management of supply chains within emerging markets

These objectives combined are meant to ensure that the report is a document that works for everyone - it is valuable research or assessment for an academic supervisor; it provides meaningful feedback to the host organization and can assist them in moving forward; and valuable professional development (or learning experience) for the intern.

1.3 Rationale of the Report

There are several convincing academics, professional and organizational reasons that justify the writing of this report on internship which indicate its importance and usefulness.

This document has been prepared with the completion of BBA program at United International University. Below and above the level of mere fulfillment, educational evidence serves as a life line which must be thrown to our children between classroom lessons and their own lives. We also offer training of some theoretical concepts by applying it to the real procedures and operations in Tiger New Energy Ltd., for instance inventory optimization, warehouse efficiency, ERP etc. This pedagogical methodology It contributes to the educational base because it allows notional understanding and forms theory. The evidence should be empirical. This paper contributes professionally by

recording the progress of key businesses and technical skills in today's supply chain careers. With today's tight labor market, practical experience is almost as important to employers as the degree itself. This extensive record of Physical experience with inventory control, warehouse operation, and ERP system use is visible proof that candidates are ready for work and have the knowhow to succeed. From an institutional standpoint, the report gives a view into Tiger New Energy Ltd.'s supply chain operations from outside the company. An outsider's fresh lens of analysis, combined with academic frameworks, these may allow insight into perspectives that are being overlooked. Through the fog of daily operations. The SWOT analysis, operational findings and the Recommendations herein provide positive input that will facilitate ongoing Improvement efforts within the organization. The renewable energy sector is growing very fast in Bangladesh, but literature has sparse scholarly contributions on supply chain practices of this nascent industry. This Report helps fill this knowledge gap by documenting actual practices from battery Manufacturing and EV battery swapping operations. These insights may be useful for future researchers, students and industry people studying or working in similar Environment.

Also, the report is a professional portfolio showcasing analytical aptitude, commercial awareness, and communication skills. It indicates one's ability to collect information, analyze operations using that data, apply a conceptual framework, and present the written findings in a logical sequence, all of which are transferable skills of value

in business careers Better understanding of the supply chain practices in renewable energy companies is very critical at a time when sustainability and clean energy have become increasingly significant globally. It is useful to know how firms such as THEL operate when thinking about serious business strategies and operational hurdles of adopting smart energy alternatives in developing economies. These different levels of rationale satisfy academically, gaining work experiences, contributing to the organization, learning industry knowledge and developing Sustainability focus—are enough reason to warrant the effort spent in preparing this Scope and Limitations of the Report

This report presents a thorough analysis of the supply chain management practices in Tiger New Energy Ltd focusing primarily on inventory management and warehousing. Scope It is kept intentionally narrow to delve deep within 3-month internship period.

Time Frame The report includes the time between September 1, 2025 and December 1, 2025 in which data and observations are analyzed.

Scope of work: Inventory management and warehouse business in the Supply Chain Management only.

Organization Size: The constraint of the study bounds up till Tiger New Energy Ltd.'s Bangladesh operations regarding their office headquarters and warehouse premises.

Industry Coverage: Renewable energy; battery technology.

Technologies/tools used: Odoo ERP System, Inventory Management,

It also can be applied to company and industry SWOT analysis, operating process review, as well intern practice summary writing.

Limitations of the Report:

Although our best attempt was made to be comprehensive and accurate, the report has some limitations that need to be acknowledged:

Time Limits: Although over three months' work experience may seem to be quite a long time, it can only represent a very small segment of the annual or seasonal changes in flow disruption and recovery and short-term FIFO behavior.

Confidential information: There is some material which an intern may not have access to like confidential business strategies which might affect the quality of financial and strategic decision making.

Limits of role: Interns obviously have limited purview and decision-making power, which can keep interns out of discussions about strategic direction or other high-level decisions.

Single Institution Study: The report is based on the practices of one institution, which may not be generalizable to current industry practice or best practice for renewable energy companies.

Geographic Restrictions: The study is limited to the operations of Tiger New Energy Ltd in Bangladesh and may not be applicable to practices of international outlets or different market settings.

Availability of data: It is becoming increasingly difficult to retrieve inventory turnover, cost metrics for performance indicators especially from financial organizations who often do not share this type of information.

Perspective Bias: As participant observers, some observation and interpretation bias may exist to affect the objectivity of certain analysis.

Technology Learning Curve: As time is scarce to excel at Odoo ERP system there will be limitations in the depth of a technical review for the capabilities.

Language and Documentation: Some of our internal documents may be in Bengali or use technical lingo, making interpretation a challenge.

They were taken into account in the analysis and discussion of results. Where relevant, we have attempted to cross-check the information in various sources and confirmed conflicting reports with supervisors. We have also described the varying levels of uncertainty about some facts. The resulting recommendations are mindful of these constraints and are couched in a real-life context.

1.4 Definition of Key Terms

For the sake of clarity and to establish some common terminology in this report, key terms are described below which have been used throughout:

Supply Chain Management (SCM) The oversight of all activities associated with the sourcing, procurement, conversion and logistics management to provide value to customer and stakeholders.

Inventory Management- The practice of control and govern inventory stock by receiving sources, storing, purchasing and maintaining in desired quantities to avoid over-stocking as well never overstocking with the motive achieving at its lowest cost.

Warehouse Management: The physical and operational activities involved in the storage, movement and protection of materials and products within a warehouse system.

ERP systems: The enterprise-wide planning and managing of core processes, using software to integrate all facets of a business (e.g. accounting, sales, human resources and production) into a unified database system.

Odoo: Open-source ERP and CRM software is implemented by Tiger New Energy Ltd for business operation, such as inventory management, supply chain.

FIFO (First in, First Out): Method that assumes the oldest inventory unit is used first and typically consequential in battery management as a way to reduced obsolesce.

ABC Classification System: **A-Items: Very high value** and require the tightest control (e.g., 20% of items account for 80% of consumption value). **B-Items: Moderate value** and control. **C-Items: Low value** and require the simplest control (e.g., 50% of items account for 5% of consumption value)

Work in Progress (WIP): Goods partially worked up the production stage that have used some resources but are not yet the final product.

Raw Materials (RM): Raw materials are products or components that are taken in by the manufacturing process to be made into finished goods.

Stock Keeping Unit (SKU): A unique number which is also assigned to each piece of merchandise and service.

Battery Swapping: In this method, a vehicle enters an automated station and a depleted battery pack is quickly swapped out with a fully charged one in minutes - instead of being recharged. Smart Charging Tiger New Energy Ltd.'s core business offering.

Lead Time: The time it takes to receive inventory after ordering, essential for planning and to avoid stock outs.

Safety Stock: Additional stock above expected sales needs to protect against stock outs resulting from uncertainties in supply and demand.

Inventory Turnover: A measure of the number of times a company sells and replaces its stock over a given period, reflecting the effectiveness of inventory management.

Economic Order Quantity (EOQ): The order quantity that minimizes the total inventory costs, including ordering and holding costs.

JIT (Just-in-Time): A method of restocking in which materials arrive as they are needed for production, reducing inventory-carrying costs.

Stock taking / stock reconciliation: Matching the closing balance of actual stock with recorded stocks in system to reconcile and update any variances.

Clean Energy: Utilities or power sources that are derived from limitless natural resources, such as solar, wind and here advanced battery technology for clean mobility.

SWOT Analysis: A strategic planning technique that helps a business or project create Strengths, Weaknesses, Opportunities and Threats.

Standard Operating Procedure (SOP): Written step-by-step instructions to ensure that work is performed correctly and consistently; used for complex tasks carried out infrequently or tasks requiring high precision.

These definitions are the base elements for various technical and business terms that have been used in this report. Terms specific to a section are explained within that section

CHAPTER 2: COMPANY AND INDUSTRY PROFILE

2.1 Company Analysis

2.1.1 Overview and History

Inspired Tomorrows is an early-stage venture and the first new energy company of its kind offering a model for the future that immediately addresses climate change through clean mobility. Founded in 2021, the firm has swiftly consolidated itself as an important player in the battery production and electric vehicle infrastructure industry.

The company was established by two entrepreneurial Harvard Business School MBA graduates, Nicole Mao and Yiwei Zhu, who saw a massive market opportunity as they watched emerging economies ramping up for the clean energy switch-over. Their strategic management education plus strong entrepreneurial intuition made possible the establishment of Tiger New Energy Ltd., where they share a mission to provide access of cleaner mobility solutions to people living in emerging countries.

Since the beginning, Tiger New Energy Ltd. has been concentrating on two business lines: processing first-class lithium-ion batteries and building battery-swapping stations for EVs. This two-pronged approach will help in solving the supply side, i.e., battery-grade. Minerals production) and the demand side-convenient battery switching infrastructure-of the EV ecosystem, thus offering a complete value proposition to costumers. It headquarters is conveniently situated in the Suvastu Muskan Tower, 56 Gulshan Avenue, Dhaka 1212 which is located at the core of Bangladesh's business capital. This central location provides proximity to government offices, financial institutions, and it is a potential corporate client and well-situated for supply chain operations.



Tiger New Energy Ltd. is incorporated as a private limited company with two major's subsidiaries:

Tiger Battery Co., Ltd. (manufacturing operation) and Tiger Lithium Co., Ltd. Lithium raw materials source & process. The divisional structure allows concentrated attention for different stages of the value chain as well as simultaneously to the integration into overall business process at corporate level. The company currently has 134 staff across functions such as production, supply chain. management, sales and marketing, finance, HR, and research & development. This A melting pot of talents, uniting know-how in battery technology with a great sense. for business game plans on greenfield markets, shaping an organizational culture that is Both dynamic whiles being committed to innovative and sustainable solutions. Founded only four years ago, Tiger New Energy Ltd. is already quite large and milestones - breeding manufacturing plants, deploying battery-swapping stations in major urban areas, and forming strategic partnerships with electric car makers and ride-sharing companies. The penetration trajectory of the company not only reflects increasing demand for clean energy solutions, but also for its ability to execute effectively strategy.

Table 1: Business Profile of Tiger New Energy Ltd.

Full Name	Tiger New Energy Ltd. (The first new energy company of its kind)
Date Founded	2021
Founders	Nicole Mao and Yiwei Zhu (Harvard Business School MBA graduates)
Headquarters	Suvastu Muskan Tower, 56 Gulshan Avenue, Dhaka 1212, Bangladesh
Main Business Lines	1. Processing first-class lithium-ion batteries (Supply Side)
	2. Building battery-swapping stations for EVs (Demand Side)
Corporate Structure	Private limited company with two main subsidiaries:
	* Tiger Battery Co., Ltd (Manufacturing Operation)
	* Tiger Lithium Co., Ltd (Lithium raw materials source & process)
Staff Count	134 staff
Mission	Provide access to cleaner mobility solutions to people in emerging countries.

2.1.2 Trend and Growth

Tiger New Energy Ltd. has recorded a stunning growth since its inception in 2021, taking advantage of worldwide eco-driven trends and growing concerns of climate. impact in Bangladesh. Their rapid growth can be attributed to strategic planning and the synergy with the present market needs from the renewable industry.

In its first year of operations, 2021, the company had focused on establishing manufacturing infrastructure, securing supply chain relationships and market research to understand the needs and preferences of customers. This formative year was one of heavy capital outlay for production facilities and purchases of technology, coupled with little in the way of income generation-as the company was getting ready to enter the growth stage.

Commercial operations of the first swap station started in Dhaka, in 2022. The company's strategy of staged growth had focused on ride-sharing drivers first, followed by commercial fleet, companies that drive long hours and prefer fast battery replacement to sit at charging. This business-to-business focus gave our platform predictability of revenue, and rich operational data to iterate on the model. With the year 2023, we saw growth at a neck-breaking pace when Tiger New Energy Ltd. ported its battery-swapping network across five stations in Dhaka and Chittagong – Bangladesh's two biggest cities. Battery production was also bumped up by 150 per cent to facilitate a spike in demand. Alliances with electric vehicle original equipment manufacturers (OEMs) and bundled offering made adoption of EV more appealing to customers. Revenue increased by around 200% y/y, demonstrating a strong market acceptance.

The company launched subscription options for individual consumers and the pay per swap and frequent customer plans for business in 2024. This multiple-revenue model strategy managed to acquire a wide audience and streamline cash flow. Band also started to export batteries to the surrounding countries making the first foreign turnover of the company. Staff also expanded from 80 to 134 to accommodate the growth in operations.

Technological innovation and operational efficiency are the targeted of the current-year (2025). In an effort to improve supply chain management, increase the accuracy of inventory and optimize data driven decision making the company adopted Odoo ERP system. The intended opening of 10 more battery-swapping stations by year's end reflects such growth plans. The company is also mulling potential collaboration with government agencies on public transport electrification projects.

There are a number of key trends that have propelled this growing trend:

Market Demand: Increasing fuel price and environmental awareness have expedited EV uptake in Bangladesh. Electric vehicles have become more affordable and attractive thanks to the support of government incentives such as tax breaks and waivers on import duties.

Technology Development: The increase of battery energy density, battery life and safety have increased the value proposition of cars as well other related services such as a EVs platform for battery swap. Tiger New Energy Ltd.'s commitment to R&D ensures that we remain ahead of these developments.

Infrastructure: Reliability and Capacitive Enhancement of Bangladesh's Electric Grid provide support for EV charging and battery production. The expansion of urban Infrastructure has made it possible to install battery-swapping stations in convenient places.

Competitive Landscape The company, Tiger New Energy Ltd., enjoys first-mover status in the Battery-swapping sector, it has fortified branding and consumer stickiness beyond early competition.

Investment Climate: Interest among investors to invest in the sustainable business has freed the capital to be utilized for growth. Wave raised venture and strategic investment from like-minded partners committed to our mission.

Going forward, Tiger New Energy Ltd. said it would continue to grow with revenue Projections call for 80-100% year-over-year gains up through 2027. It will be focused on growing into rural markets, diversifying with solar-powered charging stations and it is seeking opportunities in energy storage options for commercial and residential. products. Strong fundamentals and favorable industry trends underpin this aggressive growth strategy.

2.1.3 Organization Hierarchy



2.1.4 Vision and Mission

Vision: *To make clean mobility accessible to everyone in emerging countries.*

Mission: *To provide affordable and innovative battery-swapping solutions that enable the widespread adoption of electric vehicles. To create social impact and reduce carbon footprints by collaborating with governments, local communities, and network partners.*

2.1.5 Product / Service / Customer mix

A. Tiger Battery Co., Ltd.

- **Motorbike Batteries** (3 variants):
 - *Mighty Max* – Premium high-performance battery.
 - *Moto Max* – Cost-efficient standard battery.



- *Power Max* – Heavy-duty, long-life battery.
- **UPS Batteries** – For continuous power supply.
- **Solar Batteries** – For renewable energy applications.



Revenue Source: Direct product sales to retailers, distributors, and customers.

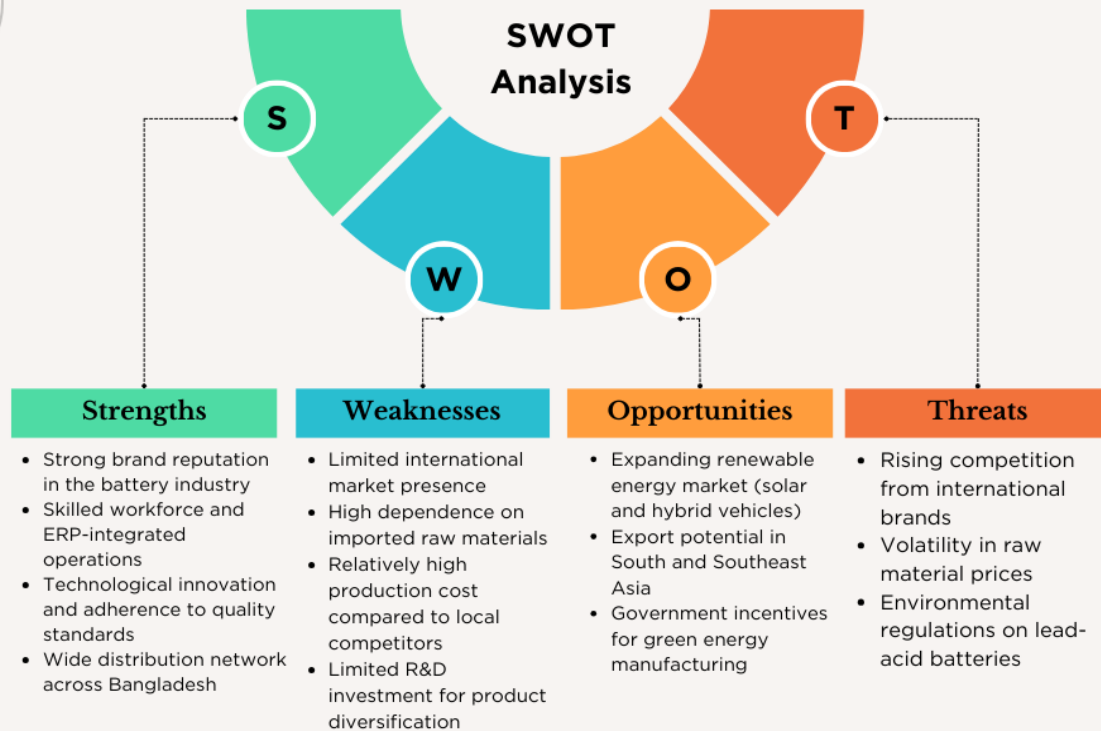
B. Tiger Lithium Co., Ltd.

- **Battery Swapping Stations** – RFID-enabled system where EV users exchange discharged batteries for recharged ones.
- **Revenue Streams:**
 - Franchise Clients (F.C).
 - Business Clients (B.C).
 - Subscription services for EV users.



2.1.6 SWOT Analysis

Tiger New Energy LTD



2.2 Industry Analysis

2.2.1 Specification of the Industry

Tiger New Energy Ltd. of the renewable energy sector operates in field of battery technology and electric vehicle infrastructure sub-sector. The industry is at the nexus of clean energy, transportation and advanced manufacturing — and it's one of the world's fastest growing portions of the economy.

In addition to solar power and wind energy, the renewable energy industry in Bangladesh includes biogas and more recently, energy storage and e-mobility solutions. Tiger New Energy Ltd.'s emphasis on battery manufacturing and EV battery exchange positions it in an emerging – but rapidly growing - market segment that tackles some of the most pressing issues faced by urban transportation sustainability.

Industry Classification: As per international standards category of the company is classified as under:

- ISIC Code 2720 - Manufacture of batteries and accumulators
- ISIC Code 3511- Electric power generation, transmission and distribution (for charging infrastructure)
- ISIC Code 5229 - Other transportation support activities (for battery swap service)

It is a high technology intensity industry with substantial capital requirements, complex supply chains and ever-changing regulations. It is a knowledge-based industry because it involves electrochemistry, electronics, software systems (Kaur and Singh 2007) and logistics management.

Some of the major industry players in Bangladesh are:

- Other stakeholders (batteries manufacturers – domestic, importers etc.)
- Producers and importers of electric cars
- Charging infrastructure providers
- Any government agencies that oversee energy and transportation
- Utility companies providing electricity
- Banks which fund interventions in the clean energy space

The industry value chain spans from upstream raw material mining (lithium, cobalt, nickel), battery cell assembly production; pack assembly, vehicle integration and charging/swapping infrastructure to end-of-life recycling. Tiger New Energy Ltd. is mainly active in the value chain of pack assembly (midstream) and infrastructure & services (downstream).

Industry factors are driven by worldwide phenomenon such as:

- Falling cost of batteries (around 80 per cent over the last decade)

- If performance and energy density can be increased
- Stricter emissions regulations globally
- Rising fossil fuel prices
- Urbanization and congestion challenges
- Corporate sustainability commitments
- Advances in technology of renewable energy harvesters

A favorable policy landscape has worked in favor of Bangladesh's green energy sector, with the government providing incentives to the renewable energy industry by introducing tax holidays for green energy investment, low import duties on EV components and public procurement preference to electric vehicles. These policy measures have formed a conducive backdrop for companies such as Tiger New Energy Ltd. to set up business and scale at breakneck speed

2.2.2 Magnitude, Trend and Stage of Industry Development

Industry Size

The industry has expanded rapidly in Bangladesh, and by 2025 the installed capacity from off-grid and distributed sources is over 700 megawatts (MW). For just solar home systems, more than 6 million households in rural areas have gained access to electricity.

Particularly for the EV and battery industry:

- The Bangladesh Electric Vehicle Market is worth approximately \$150-200 million every year and it is growing at 45 – 50% CAGR

- More than 50,000 electric two-wheelers and three wheelers are presently plying in urban areas
- EV battery demand seen at 200-250 MWh per year; to triple by 2027
- Adoption of battery swap is in initial stage with estimated market size of about \$10-15 m. Tiger New Energy Ltd. leads it by an estimated 30-35% market share
- Cumulatively more than 3 years, greater than \$50 million in EV infrastructure investment

Unlike in India's large market but much faster than growth occurred in Pakistan, which has a smaller renewable energy sector. The nation's location at a strategic junction between India and Southeast Asia offers potential to become a regional center of manufacturing and service activities.

Industry Trends

There are several major trends driving the renewable energy and EV battery industry in Bangladesh:

Expediting the Adoption of EVs: The number of EVs on Bangladesh roads is increasing at an exorbitant rate, primarily because of the increase in fuel prices, government subsidies and better vehicles available. Rideshare/delivery is leading adoption as higher daily mileage makes the economics even more attractive.

Investment in Infrastructure: Charging and swapping infrastructure is receiving a rails-style investment both from private companies and government agencies. The government intends to build electric-vehicle charging facilities on all main roads and in urban centers by 2030.

Technology Localization: There is greater reliance to build and source through local battery assembly and components such as cells in order to minimize its import

dependency so as to generate employment. Some companies, such as Tiger New Energy Ltd., are also turning to domestic production.

Solar Integration: Pairing solar power generation with battery storage is producing new value propositions for homes and businesses, both in providing back-up power as well as peak shaving.

Financial Innovation: Emerging finance flows, for example battery-as-a-service, leases and green bonds are enabling more affordable access to EVs for consumers unable to cover the large initial procurement costs.

Smart Grid Applications: Grid-scale storage options are studied for firming up renewable energy fluctuations and regulation of frequency.

Regional Cooperation Bangladesh is working with neighboring countries to around cross border electricity trade and possibility of harmonization of EV standard which could open market potential.

Industry Maturity

In Bangladesh the renewable energy sector is at varying degrees of maturity in different sub-sectors:

Solar Energy: Developed – Having seen over two decades of solar home systems (SHS) programs, this segment has matured supply chains, experienced actors and standardized technologies.

Battery Manufacturing and EV Infrastructure: Growth the Gals (Grizzled Green) – This segment at around 3-5 years straddles both commercial operations with plenty of new entrants, tech is changing fast and business models are still being shaped. It has growth-stage industry traits:

- High growth, uncertain profitability for many players

- Experimenting with technology and business models
- Quick influx of new competitors
- Evolving regulatory frameworks
- Slowly breaking through customer awareness and adoption barriers
- Supply chain build-out continues

The battery swap business in particular is at an early growth stage with companies like Tiger New Energy Ltd. among the first movers. This yields the benefits of being a first-mover but also the need to educate the market and set standards.

Overhead, the industry is expected to mature in 2030-2035 because:

- Technology standardization occurs
- Dominant business models emerge
- Mergers and acquisition are the order of the day for market mergers.
- Price competition intensifies
- Rates of growth slow from high levels of today

As it happens, today market both gives ample opportunities for companies with ingenious solutions to attain leadership positions and introduces into the sector all kinds of risks which are common for a fast-growing industry: technological obsolescence, regulation changes, high rivalry.

CHAPTER 3: INVENTORY MANAGEMENT

3.1 Introduction of the Inventory Management in Tiger New Energy Ltd.

Inventory management is an essential link in the system of supply chain operations for Tiger New Energy Ltd., and it has a close relationship with operational efficiency, customer satisfaction and economic benefits. Due to the characteristics of battery, similar to other kind of manufacturing and swapping, inventory optimization in all three categories (in raw material stage, work-in-process stage and finished goods stage) needs well controlled systems.

At Tiger New Energy Ltd., the function of Inventory Management is established as a separate entity in the department of SCM with dedicated personals to plan, monitor and control the process for managing inventory. Among others, long term goals are to strive for continuous production, make sure to have sufficient spares at the swapping stations, avoid to carry high stocks in depots and allow neither obsolescence nor expiring of life limited parts.

Throughout the course of my three-month internship, I worked on the ground in many inventory management roles including: daily cycle counts and stock reconciliation demand forecasting order processing This chapter describes the examined practical inventory management practices in a structured format as well as if they conform to academic models.

3.2 Inventory Categories and Classification

Tiger New Energy Ltd. operates three categories of inventory which have differing nature and feature requirements and management:

Raw Materials and Components

This category includes everything you need to MAKE your own battery pack:

- Li-ion cells purchased from international vendors (mainly from China and South Korea)
- BATTERY MANAGEMENT SYSTEM (BMS) BOARDS AND CONTROLLERS
- Aluminum and plastic casings
- Wiring harnesses and connectors
- Cooling systems components
- Packaging materials

Raw materials generally make up 65-70% of total inventories. For imported parts lead times range from 30-60 days, and to run short could potentially hinder production. To mitigate potential supply interruption, the company holds safety stock of 15-20 days production.

Work-in-Progress (WIP)

WIP inventory These are incomplete batteries at different stages of manufacturing process:

- Initial assembly and cell construction
- BMS integration and programming
- Casing installation

- Quality testing in progress
- Packaging preparation

WIP typically comprises 10-15% of total stock value. The company would like to reduce WIP by optimizing production scheduling and batch sizes, since longer time in production means more investments tied up in inventory, and there is a risk of material aging.

Finished Goods

Finished inventory includes:

- Finished battery packs now for sale
- Batteries utilized in the swapping network (in circulation)
- Batteries being recharged at central stations
- Reconditioned batteries for the secondary markets

20-25% of the total value is for final products. What is unique in the case of Tiger New Energy Ltd., is that the batteries used by end customers at swapping stations, are a company asset while being deployed and revenue generating (i.e. they must be properly inventory controlled and managed during their lifetime).

3.3 Odoo ERP System Implementation

Tiger New Energy Ltd., introduced the Odoo ERP software system in early 2025 as a new way to manage inventory and operate more efficiently. Odoo with Features: An open-source platform that automates all sorts of business operations including inventory, sales, purchasing and With Case -Nablus's such as accounting or customer relationship management (CRM) etc.

Key Features Utilized

With Stock module, get an instant overview of stock level across all locations (main warehouse, the production floor and battery-swapping stations) in real time. Instantaneous recording in the system with user id, timestamp and location on every inventory transaction: receipt, transfer or consumption.

Barcode scanning makes data entry quicker and more accurate. Every pack is assigned a special QR code that contains information such as the model number, production date, cell type and service record. Handheld scanners record the passage of goods and take human error out of manual data entry.

The system uses automatic reorder point computation that takes into account lead time, historical consumption trends and safety stock considerations. Purchase requisitions are automatically created and submitted for review and approval by procurement, when the stock is below predefined levels.

CHAPTER 4: Warehouse Management

The Warehouse Management function at Tiger New Energy is the operational backbone supporting the company's innovative battery swapping network. The primary focus is on the safe, accurate, and efficient handling of high-value Li-ion batteries and their associated components.

4.1 Key role in Warehouse management

The intern's role typically involves supporting the Supply Chain and Warehouse Management teams. Key duties include:

- Assisting with inventory transactions, including receiving, inspection, storage, and dispatch of battery packs and raw materials.
- Conducting routine stock audits and cycle counting to ensure inventory accuracy.
- Monitoring system-generated purchase requisitions and facilitating the fulfillment process.
- Generating reports on stock levels and inventory turnover rate.
- Ensuring adherence to safety protocols for the handling and storage of energy products, aligning with best practices for energy efficiency and sustainability.

4.2 Core business model use for warehouse management

The streamlined warehouse process contributes directly to Tiger New Energy's core business model:

- **Real-time Visibility:** The use of the Odoo Stock module provides instantaneous inventory visibility across the main warehouse, production floor, and the distributed battery-swapping stations. This ensures that charged batteries are always available for quick swaps, maximizing driver uptime and income.

- **System Automation:** The implementation of automatic reorder point computation minimizes manual intervention in procurement, ensuring that new stock is ordered based on historical consumption trends and calculated safety stock.
- **Data Integrity:** Assigning unique QR codes to each battery pack, which holds data like the cell type and service record, ensures robust data accuracy for maintenance and quality control.

4.3 KPI for warehouse management

The warehouse operations are evaluated based on critical Key Performance Indicators (KPIs), including picking accuracy, order cycle time (the time to move a battery from the charging station to a swap), and space utilization rate. The efficiency of the operation is directly tied to customer satisfaction and the overall reduction of carbon emissions achieved through the faster adoption of electric vehicles.

CHAPTER 5: CONCLUSIONS AND KEY FACTS

5.1 Recommendations

Enhance Automation with RFID

Explore the integration of RFID tagging to further automate and speed up high-volume transactions in the main warehouse, improving both operational efficiency and picking accuracy.

Regular System Audits and Training

Implement a formalized, routine stock audit program combined with recurring training sessions on the WMS and handheld scanners to continuously reinforce compliance and minimize human error.

Optimize Warehouse Layout

Conduct space utilization analyses to redesign storage layouts (e.g., maximizing vertical storage) to reduce order cycle time and improve overall space utilization rate.

5.2 Key understanding

WMS is a Strategic Asset

The Odoo Stock module is the backbone that ensures real-time inventory visibility and control over high-value Li-ion batteries across the entire battery swapping network.

Data Accuracy is Critical

The use of QR codes and Barcode scanning is essential for maintaining data accuracy for every inventory transaction and tracking the service life of each battery.

Proactive Stock Management

Automatic reorder point computation is used to balance lead time and safety stock, ensuring a steady supply while maintaining a favorable inventory turnover rate.

5.3 Conclusion

The internship report on "Inventory Management at Tiger New Energy Ltd" provides a comprehensive analysis of the critical role that a robust and technologically advanced supply chain plays in supporting the company's innovative battery swapping network. Tiger New Energy, a pioneer in the clean energy sector, relies heavily on the efficient movement, storage, and tracking of its high-value Li-ion batteries to drive its mission of providing sustainable transportation.

The core conclusion is that the company's success in maintaining operational continuity and promoting social impact is directly tied to the strategic deployment of its Warehouse Management System (WMS), specifically the Odoo Stock module. This system is instrumental in achieving two key objectives:

- 1. Real-Time Visibility:** It grants an instant overview of stock levels across all critical locations—the main warehouse, the production floor, and the distributed battery-swapping stations—in real time. This real-time inventory visibility is the foundation for ensuring immediate service to customers, maximizing driver income, and minimizing EV downtime.
- 2. Data Integrity and Efficiency:** The use of Barcode scanning and handheld scanners to record every inventory transaction is a best-practice approach that significantly improves data accuracy. By assigning a unique QR code to each battery pack, which contains vital information like cell type and service record, the system enables effective quality control and asset management.

Furthermore, Tiger New Energy demonstrates a commitment to process automation through the use of automatic reorder point computation. This feature ensures that

purchasing decisions are data-driven, considering factors like lead time, historical consumption, and necessary safety stock. This strategic approach minimizes capital expenditure on excess stock while safeguarding against stock-outs, thus optimizing the inventory turnover rate.

In sum, the experience confirms that effective inventory management is a strategic necessity in the high-growth green energy market. The systems and processes in place at Tiger New Energy are highly aligned with modern Supply Chain Management best practices, enabling the company to scale its operations, maintain efficiency, and successfully contribute to the national goal of sustainable mobility.

References

https://www.odoo.com/documentation/19.0/applications/inventory_and_mrp.html

<https://tigernewenergy.com/>