A TECHNICAL REPORT
STUDENT INDUSTRIAL WORKING EXPERIENCE SCHEME
(SIWES)

Held at
AGBOLFAGOLD INVESTMENT NIGERIA LIMITED

Prepared by:

ALAYODE IFEOLUWA PRISCILLA

ND/23/PSM/FT/0132

SUBMITTED TO

DEPARTMENT OF PROCUREMENT AND SUPPLY CHAIN MANAGEMENT
INSTITUTE OF FINANCE AND MANAGEMENT STUDIES
KWARA STATE POLYTECHNIC, ILORIN

IN PARTIAL FULFILLMENT OF THE AWARD OF THE REQUIREMENT OF THE AWARD OF NATIONAL DIPLOMA IN PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

Aug., – Dec., 2024

DEDICATION

I dedicate this technical report to the Almighty God, the giver of knowledge, the beneficent and the merciful for his protection and provision throughout this SIWES programme.

ACKNOWLEDGEMENT

I take this opportunity to express my profound gratitude and deep regards to the creator of heaven and earth, the one who knows the beginning and the end, the alpha and the omega, the Almighty Allah and also to my guidians (MR & MRS ALAYODE) and to all those who has helped me during my SIWES programme. The blessings, help and guidance given by them, time to time has carry me so this far and shall carry on the journey of life on which I am about to embark. I also take this opportunity to express a deep sense of gratitude to compliment my mentor for his cordial support valuable information and guidance which helped me in completing my SIWES through various stages.

Lastly my deep regard to the best and most inspiring siblings.

A big thanks goes to my friends, May Almighty GOD bless, protect, keep, nourish and guide you through all your life's entire journey. And also my regard to the school board of trustees and the staff a very big thank you to all and sundry.

TABLE OF CONTENT

CHAPTER ONE

1.1 INTRODUCTION OF SIWES

The Student Industrial Work Experience Scheme (SIWES) is a skill development program designed to prepare students of universities, polytechnics, and colleges of education for the industrial work situation they are likely to encounter after graduation. Established by the Industrial Training Fund (ITF) in 1973, SIWES bridges the gap between theory and practice by providing students with the opportunity to gain handson experience in their chosen fields. The program is mandatory for students in engineering, technology, science, and other related disciplines, as it equips them with practical skills and exposure to realworld work environments.

Students Industrial Work Experience Scheme (SIWES) is a Skills Training Program designed to prepare and expose Students of Universities, Polytechnics, Colleges of Technology, Colleges of Agriculture and Colleges of Education for the Industrial Work situation they are likely to meet after graduation. The Scheme affords Students the opportunity of familiarizing and exposing themselves handling equipment and machinery that are usually not available in their institutions.

1.2 HISTORY OF SIWES

The SIWES program was introduced in Nigeria in 1973 by the Industrial Training Fund (ITF) to address the growing concern about the lack of practical skills among graduates. The scheme was created in collaboration with the Nigerian Universities Commission (NUC), the National Board for Technical Education (NBTE), and the National Commission for Colleges of Education (NCCE). Over the years, SIWES has evolved to become a critical component of tertiary education in Nigeria, ensuring that students are wellprepared for the demands of the labor market.

The Students' Industrial Work Experience Scheme (SIWES) was initiated in 1973 by the Federal Government of Nigeria under the Industrial Training Fund (ITF) to bridge the gap between theory and practice among products of our tertiary Institutions. It was designed to provide practical training that will expose and prepare students of Universities, Polytechnics, and Colleges of Education for work situation they are likely to meet after graduation.

Before the establishment of the scheme, there was a growing concern among the industrialists that graduates of institutions of higher learning lacked adequate practical background studies preparatory for employment in industries. Thus the employers were of the opinion that the theoretical education going on in higher institutions was not responsive to the needs of the employers of labour.

As a result of the increasing number of students' enrolment in higher institutions of learning, the administration of this function of funding the scheme became enormous, hence ITF withdrew from the scheme in 1978 and was taken over by the Federal Government and handed to National Universities commission (NUC), National Board for Technical Education (NBTE) and National Commission for Colleges of Education (NCCE). In 1984, the Federal Government reverted back to ITF which took over the scheme officially in 1985 with funding provided by the Federal Government

1.3. OBJECTIVES OF THE PROGRAMME

The primary objectives of SIWES include:

- To expose students to reallife work environments and industrial practices.
- To provide students with the opportunity to apply theoretical knowledge gained in the classroom to practical situations.
- To equip students with relevant skills and competencies required in their chosen professions.
- To foster a smooth transition from academic life to the professional world.
- To enhance students' employability by providing them with handson experience and industry exposure.
- Expose students to work methods and techniques in the handling of equipment and machinery that may not be available in schools.
- Make transition from school to the labour market smooth and enhance students' conduct for later job placement
- Provide students with the opportunity to apply their knowledge in real life work situation thereby bridging the gap between theory and practice
- Strengthen employer involvement in the entire educational process and prepare students for employment in industry

  Promote the desired technological knowhow required for the advancement of the nation.

1.4. OBJECTIVES OF ESTABLISHMENT

The establishment of SIWES was driven by the need to:

- Address the gap between academic training and industry requirements.
- Produce graduates who are not only theoretically sound but also practically competent.
- Promote collaboration between educational institutions and industries.
- Enhance the quality of education by integrating practical training into the curriculum.
- Contribute to national development by producing a skilled workforce capable of driving innovation and economic growth.
- To maintain good relationship with patients, relations and the community through health education.
- To carry out diagnosis and intervention.
- To provide training for students.
- To maintain sufficient hospital supply of equipment and promote their utilization and maintenance.

CHAPTER TWO

2.1. BENEFIT DERIVED FROM SIWES PROGRAMME

The experience, knowledge, skills and exposure acquired during the period of attachment in the industrial exercise cannot be over emphasized. I was exposed to certain areas in my course of study, such as:

1. **Skill Development**: Students acquire practical skills and competencies that are essential for their professional growth.
2. **Industry Exposure**: The program provides students with firsthand experience of industrial operations, processes, and technologies.
3. **Networking Opportunities**: Students interact with professionals in their field, building valuable connections for future career prospects.
4. **Enhanced Employability**: Employers prefer candidates with practical experience, making SIWES participants more competitive in the job market.
5. **Improved Academic Performance**: The application of theoretical knowledge in realworld scenarios enhances students' understanding of their coursework.
6. **Contribution to National Development**: By producing a skilled workforce, SIWES contributes to the economic and technological advancement of the nation.

2.2 OVERVIEW OF THE ORGANIZATION

Agbolfagold investment nigeria limited Company is a leading producer of bottled and sachet water, known for its commitment to quality and customer satisfaction. The company operates in compliance with national and international standards for water production. Its operations include sourcing raw materials, production, packaging, and distribution.

2.3 ORGANIZATIONAL CHART OF THE ORGANIZATION

EXPLANATION OF THE ORGANIZATIONAL STRUCTURE

Board of Directors:

The highest decision-making body responsible for the overall strategy and governance of the company.

Chief Executive Officer (CEO):

Oversees the day-to-day operations and ensures the company achieves its goals.

Director of Operations:

Manages production, quality control, and maintenance to ensure efficient and high-quality production processes.

Director of Finance & Administration:

Oversees financial management, human resources, and administrative functions to support the company's operations.

Director of Sales & Marketing:

Responsible for driving sales, managing distribution channels, and promoting the company's products.

Production Manager:

Supervises the production process to ensure timely and efficient manufacturing of bottled and sachet water.

Quality Control Manager:

Ensures that all products meet regulatory standards and company quality specifications.

Maintenance Manager:

Manages the maintenance of equipment and facilities to minimize downtime.

Accounting Manager:

Handles financial reporting, budgeting, and cost control.

HR & Admin Manager:

Manages recruitment, employee relations, and administrative support.

Procurement Manager:

Oversees the sourcing and purchasing of raw materials and supplies.

Sales Team:

Responsible for achieving sales targets and maintaining customer relationships.

Distribution Team:

Ensures timely delivery of products to distributors and retailers.

Marketing Team:

Handles branding, advertising, and promotional activities.

2.5 INTRODUCTION TO APPARATUS AND THEIR FUNCTIONS

In a water production company like **Agbolfagold investment nigeria limited**, various apparatus and equipment are used to ensure efficient production, packaging, and quality control of bottled and sachet water. Below is a list of the **apparatus and equipment** commonly used in such organizations, categorized by their functions:

1. WATER TREATMENT APPARATUS

These are used to purify raw water and make it safe for consumption:

Sedimentation Tanks: For removing large particles and sediments from raw water.

Sand Filters: To remove fine particles and impurities.

Activated Carbon Filters: For removing chlorine, organic compounds, and odors.

Reverse Osmosis (RO) System: To remove dissolved salts, bacteria, and viruses.

Ultraviolet (UV) Sterilizers: For disinfecting water by killing microorganisms.

Ozone Generators: To further sterilize water and improve its taste.

2. PRODUCTION EQUIPMENT

These are used in the production and packaging of bottled and sachet water:

Water Storage Tanks: For storing treated water before packaging.

Bottle Blowing Machines: To produce plastic bottles from preforms.

Sachet Water Machines: For filling and sealing sachets of water.

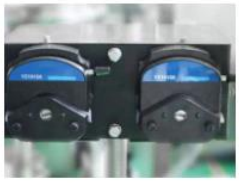
Bottle Filling Machines: For filling bottles with treated water.

Capping Machines: To seal bottles with caps.

Labeling Machines: For applying labels to bottles.

Conveyor Belts: To transport bottles and sachets between different stages of production.

Smart Control Panel



Filling Peristaltic Pump

Rotating Disk

Detection Electric Eye

Capping Device

Cover Removal Device

Anti-drip Filling Nozzle

Adjustable Conveyor

3. QUALITY CONTROL APPARATUS

These are used to ensure the water meets safety and quality standards:

pH Meters: To measure the acidity or alkalinity of water.

Turbidity Meters: For measuring the clarity of water.

Conductivity Meters: To check the level of dissolved salts in water.

Microbial Testing Kits: For detecting bacteria and other microorganisms.

Weighing Scales: To ensure the correct volume of water in bottles and sachets.

4. PACKAGING AND STORAGE EQUIPMENT

These are used for final packaging and storage of finished products:

Shrink Wrapping Machines: For bundling bottles into packs.

Palletizers: To arrange products on pallets for easy transportation.

Forklifts: For moving pallets and heavy materials within the warehouse.

Storage Racks: For organizing finished products before distribution.

5. MAINTENANCE AND UTILITY EQUIPMENT

These support the overall operations of the organization:

Generators: To provide backup power during outages.

Compressors: For powering pneumatic machines.

Boilers: To produce steam for sterilization processes (if applicable).

Water Pumps: For moving water between different stages of treatment and production.

6. TRANSPORTATION EQUIPMENT

These are used for distributing the finished products:

Delivery Trucks/Vans: For transporting products to distributors and retailers.

Loading Dock Equipment: Such as ramps and conveyor belts for loading products onto trucks.

HOW THESE APPARATUS ARE USED IN AGBOLFAGOLD INVESTMENT NIGERIA LIMITED

Water Treatment: Raw water is treated using sedimentation tanks, sand filters, RO systems, and UV sterilizers to ensure it is safe for consumption.

Production: Treated water is filled into bottles and sachets using automated filling and sealing machines.

Quality Control: Samples of water are tested using pH meters, turbidity meters, and microbial testing kits to ensure compliance with standards.

Packaging and Storage: Finished products are packaged, labeled, and stored in the warehouse before distribution.

Distribution: Products are transported to customers using delivery trucks.

IMPORTANCE OF THESE APPARATUS

- Ensures the production of safe and high-quality drinking water.
- Improves efficiency and reduces manual labor.
- Helps the organization meet regulatory standards.
- Enhances customer satisfaction by delivering consistent products.

CHAPTER THREE

3.1 ROLES AND RESPONSIBILITIES DURING THE TRAINING

During my SIWES (Student Industrial Work Experience Scheme) training at AGBOLFAGOLD INVESTMENT NIGERIA LIMITED Company, I was assigned to specific roles and responsibilities to help you gain practical experience in the organization. Below is a detailed outline of the roles and responsibilities you might have undertaken during your training:

1. ASSISTING IN PROCUREMENT ACTIVITIES

Identifying Office Needs: I worked with the procurement unit to identify the office's needs, such as stationery, cleaning supplies, and office equipment.

Vendor Evaluation: I assisted in evaluating vendors based on quality, cost, and reliability.

Purchase Orders: I helped prepare and issue purchase orders to approved vendors.

Receipt of Goods: I participated in receiving and inspecting goods to ensure they met the required specifications.

2. INVENTORY MANAGEMENT

Stock Keeping: I maintained accurate records of inventory using both manual and digital systems.

Stock Replenishment: I monitored stock levels and initiated reorders when supplies were low.

Storage Management: I ensured that goods were properly stored to prevent damage or loss.

3. DOCUMENTATION AND REPORTING

Record-Keeping: I maintained proper documentation of procurement activities, including purchase orders, delivery notes, and invoices.

Report Preparation: I assisted in preparing procurement reports, such as purchase summaries and expenditure reports.

Filing: I organized and filed documents for easy retrieval and auditing purposes.

4. SUPPLIER RELATIONSHIP MANAGEMENT

Communication with Suppliers: I interacted with suppliers to confirm orders, track deliveries, and resolve issues.

Feedback Collection: I gathered feedback from end-users to assess the quality of goods and services provided by suppliers.

3.2 LEARNING EXPERIENCES AND SKILLS ACQUIRED

The training provided me with valuable skills and knowledge, including:

1. Understanding the Procurement Process

- I learned the step-by-step process of procurement, from identifying needs to receiving and inspecting goods.
- I observed how procurement policies and guidelines are applied to ensure transparency and accountability.

2. Veor Management

- I gained experience in evaluating and selecting vendors based on quality, cost, and reliability.
- I learned how to maintain good relationships with suppliers to ensure timely delivery and quality service.

3. Inventory Management

- I participated in maintaining accurate records of office supplies and equipment.
- I learned how to monitor stock levels and initiate reorders to avoid shortages.

4. Documentation and Reporting

- I was exposed to the importance of proper documentation in procurement, including purchase orders, delivery notes, and invoices.
- I assisted in preparing procurement reports, which gave me insight into tracking expenditures and analyzing procurement activities.

5. Budgeting and Cost Control

- I learned how to work within a budget and make cost-effective decisions.
- I observed how financial constraints impact procurement decisions and how to prioritize needs accordingly.

3.3 CHALLENGES ENCOUNTERED

1. LIMITED RESOURCES AND BUDGET CONSTRAINTS

Challenge:

The office often operated with limited financial resources, which affected procurement activities. There were instances where essential supplies could not be purchased due to budget constraints.

How I Addressed It:

I learned to prioritize needs and focus on procuring the most critical items first.

I worked with the procurement team to identify cost-effective alternatives and negotiate better prices with suppliers.

2. DELAYED DELIVERIES FROM SUPPLIERS

Challenge:

Some suppliers failed to deliver goods on time, which disrupted office operations and caused delays in project execution.

How I Addressed It:

I maintained regular communication with suppliers to track the status of orders and remind them of delivery deadlines.

I assisted in identifying backup suppliers to ensure continuity in case of delays.

3. MANUAL RECORD-KEEPING PROCESSES

Challenge:

The office relied heavily on manual record-keeping, which was time-consuming and prone to errors.

How I Addressed It:

I suggested the adoption of digital tools for inventory management and documentation.

I assisted in organizing physical files to make them easier to access and manage.

---

4. LACK OF MODERN EQUIPMENT

Challenge:

Some departments lacked modern equipment, such as computers and software, which hindered efficiency.

How I Addressed It:

I made recommendations for upgrading equipment to improve productivity.

I utilized available resources creatively to complete tasks effectively.

---

5. BUREAUCRATIC DELAYS

Challenge:

The approval process for procurement requests was often lengthy, causing delays in the execution of tasks.

How I Addressed It:

I learned to plan ahead and submit requests well in advance to account for delays.

I followed up regularly with relevant authorities to expedite approvals.

CHAPTER FOUR

4.1 SUMMARY OF EXPERIENCE

My SIWES attachment at the organization provided me with a comprehensive understanding of procurement and supply chain management. I gained practical skills in inventory management, vendor negotiation, and supply chain optimization, which will be invaluable in my future career.

During my training, I observed that the ministry uses a structured procurement process, which includes needs assessment, vendor selection, purchase order issuance, and delivery monitoring.

4.2 CONCLUSION

The SIWES program has been a transformative experience, equipping me with the knowledge and skills required to excel in the field of procurement and supply chain management. The exposure to real-world challenges and solutions has prepared me for the demands of the professional world.

I was able to apply the theoretical knowledge gained in the classroom to real-world scenarios. The program enhanced my understanding of procurement processes, inventory management, supplier relationship management, logistics, and compliance. It also equipped me with essential skills such as problem-solving, communication, and teamwork, which are critical for success in the procurement and supply chain industry.

4.3 RECOMMENDATIONS

To improve the efficiency of the procurement and supply chain management process, I recommend the following:

1. IMPROVE EQUIPMENT MAINTENANCE

- Recommendation: Implement a preventive maintenance schedule for all production equipment to reduce downtime and improve efficiency.
- Reason: Regular maintenance can prevent unexpected breakdowns and extend the lifespan of machinery.

2. ENHANCE QUALITY CONTROL MEASURES

- Recommendation: Invest in advanced testing equipment and train staff on modern quality control techniques.
- Reason: This will ensure consistent product quality and compliance with regulatory standards.

3. DIVERSIFY SUPPLIER BASE

- Recommendation: Engage multiple suppliers for critical raw materials to reduce dependency on a single source.
- Reason: This will mitigate risks associated with supplier delays or shortages.

4. ADOPT TECHNOLOGY FOR INVENTORY MANAGEMENT

- Recommendation: Use inventory management software to track stock levels in real-time.
- Reason: This will improve accuracy in inventory records and reduce the risk of overstocking or stockouts.

5. IMPROVE WORKER SAFETY

- Recommendation: Conduct regular safety training sessions and provide adequate personal protective equipment (PPE) for all staff.
- Reason: A safe working environment reduces the risk of accidents and improves employee morale.

REFERENCES

Chopra, S., & Meindl, P. (2016). Supply Chain Management: Strategy, Planning, and Operation. Pearson Education.

Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2015). Purchasing and Supply Chain Management. Cengage Learning.

Slack, N., Brandon-Jones, A., & Johnston, R. (2016). Operations Management. Pearson Education.

Heizer, J., Render, B., & Munson, C. (2020). Principles of Operations Management: Sustainability and Supply Chain Management. Pearson.

Kumar, S., & Nigam, S. P. (2012). "Quality Management in Bottled Water Industry: A Case Study." International Journal of Engineering Research and Applications, 2(3), 1234-1240.

Adeyemi, T. O., & Salami, A. O. (2010). "Inventory Management in Small and Medium Enterprises: Evidence from Nigeria." Journal of Business and Management, 12(4), 1-10.