



**A**  
**TECHNICAL REPORT ON INDUSTRIAL ATTACHMENT FOR**  
**STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)**  
**HELD AT**  
**ANUOLUWA PHARMACY, OGUN STATE**



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**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE**  
**AWARD IN NATIONAL DIPLOMA CERTIFICATE IN STATISTICS**

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## **CERTIFICATION**

This is to certify that this report is original to the author, **OLANIYAN ADURAGBEMI VICTORIA** of matric number **ND/23/STA/FT/0036** of the Department of statistics, Institute of Applied Science, Kwara State Polytechnic, Ilorin and was supervised accordingly by;

.....  
SIWES COORDINATOR

.....  
DATE & SIGNATURE

.....  
SIWES SUPERVISOR

.....  
DATE & SIGNATURE

.....  
HEAD OF DEPARTMENT

.....  
DATE & SIGNATURE

## **PREFACE**

This is a report of four months industrial training which was done as part of the requirement needed for the award of National Diploma Certificate which was embarked upon by the technical student after their first year of stay in school.

It is also done to enable the student's to be exposed to the practical aspect of their course of study and write down what he/she has gained during the training.

The program is aimed at addressing incompetence in schools while improving scientific and technical education in the country.

## **DEDICATION**

This report is dedicated to the Almighty God, the Beneficent, the merciful, the cherisher of the universe, the uncreated creator of all creatures and the most knowledgeable who seek knowledge just from himself for giving me the opportunity, privilege and understanding to participate in the student industrial work experience scheme (SIWES).

I also dedicate this report to my amiable parent Mr. and Mrs. **OLANIYAN** for their financial support during the course of the program. May GOD continue to bless them (AMEN).

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# **CHAPTER ONE**

## **INTRODUCTION OF SIWES**

The Students Industrial Work Experience Scheme (SIWES) for the 2023 /2024 academic session kicked off the month of in August 2023 and was concluded (4) months in the month of December, 2024. The industrial attachment program is solely aimed at improving in working skills of students in tertiary institutions as well as effecting, learning, participation and observation into proactive invariable fields with respect to grasp very useful practical knowledge which not only makes them employable but also aids in the perfect understanding of theories and operation in their different profession. It is a corporative industrial internship program that involves industries, the Federal Government of Nigeria, Industrial Training Fund (ITF), and Nigeria Universities Commission (NUC). The program is of very high importance considering the lack of adequate practical equipment for learning in most Nigeria tertiary institutions and itself proven as it has been part and parcel of the countries system of education for over 28 years.

## **AIMS OF SIWES**

The Industrial Training Funds Policy document Number 1 of 1973, which established SIWES outline the objective of the scheme. The objectives are to:-

1. To provide an avenue for Students in Nigerian Tertiary Institutions to acquire Industrial Skills and Experience during their course of Study.
2. To prepare Students for the work they are likely to meet after graduation.
3. To expose students to work methods and techniques of handling equipment and machinery that may not be available in their Institutions.
4. To allow the transition phase from school to the world of working environment easier and facilitate students contact for later job placement.
5. To provide students with an opportunity to apply theoretical knowledge in real work

situation there by bridging the gap between theory and practice.

## **Historical Background of SIWES**

SIWES (Student Industrial Work Experience Scheme) was set up by the federal government of Nigeria to close the gap between theoretical learning and practical work experience. It was first kicked off and funded by the Industrial Training Fund (ITF) in 1973. The scheme has gone through a series of reforms. Its management has changed hands from the ITF in 1978 to various regulatory agencies such as National Universities (NUC) and National Board for Technical Education (NBTE) and back to the ITF again in 1985. These are the major stakeholders in SIWES. Consequently, the SIWES program was introduced into the curriculum of tertiary institutions in the country as far back as 1974 with 948 students from two institutions of higher learning and the scheme has over the years contributed immensely to the personal development and motivation of their academic programs and what knowledge and skill will be expected of them on professional practice after graduation.

### **DEFINITION OF TERMS**

- 1. SIWES:** Student Industrial Work Experience Scheme. The Scheme was established by the Industrial Training Fund (ITF) in 1973 to solve the problem of lack of adequate preparatory for employment in industry by Nigeria graduates of tertiary institutions.
- 2. Industrial Training Fund:** The fund was established in 1971 and has operated consistently and painstakingly within the context of its.
- 3. CONSOLE:** It is considered as the center piece or the very heart of a radio station. Hasan (2013) in Adoyi (2020:54) says, professionally, a mixing console is an electronic device for combining (mixing) routing, and changing the level, tone and/or dynamics of audio signals.

## **CHAPTER TWO**

### **DEPARTMENTS IN ANUOLUWA PHARMACY, OGUN STATE AND THEIR FUNCTIONS**

Anuoluwa Pharmacy, Ogun State.

#### **1. Dispensary Department:**

- Functions:
  - Accurately dispensing prescription medications to patients.
  - Providing essential information on medication usage, potential side effects, and interactions.
  - Ensuring compliance with legal and ethical standards in medication distribution.

#### **2. Over-the-Counter (OTC) Sales:**

- Functions:
  - Offering non-prescription medications, health supplements, and general wellness products.
  - Advising customers on the appropriate selection and use of OTC products.

#### **3. Inventory and Procurement:**

- Functions:
  - Managing stock levels to ensure the availability of medications and products.
  - Coordinating with suppliers for timely procurement and replenishment.
  - Monitoring product expiration dates and handling recalls or withdrawals as necessary.

#### **4. Clinical Services:**

- Functions:
  - Providing health screenings, immunizations, and basic diagnostic services.
  - Offering patient counseling on disease management and preventive healthcare.

#### **5. Administrative and Compliance:**

- Functions:
  - Overseeing daily operations, staff management, and customer service protocols.
  - Ensuring adherence to regulatory requirements set by health authorities.
  - Maintaining accurate records for audits and inspections.



## 6. Financial Management:

- Functions:
  - Handling billing, insurance claims, and financial transactions.
  - Managing budgets, payroll, and financial reporting.

### STRUCTURE OF ANUOLUWA PHARMACY



## CHAPTER THREE & FOUR

### SIWES EXPERIENCE AT ANUOLUWA PHARMACY, OGUN STATE

My SIWES commenced officially on the 5<sup>th</sup> of August 2024. And I resumed at **ANUOLUWA PHARMACY** on the 5<sup>th</sup> August 2024. SIWES experience can be regarded as plus, because I learnt a lot of things which includes the practical and theoretical aspects of **STATISTICS** and made me to have more experience.

During the SIWES training, I worked on inventory data collection and analysis. The following tasks were performed:

#### Data Collection on Drug Inventory

- Recorded the total number of drugs available in stock at different intervals (daily/weekly/monthly).
- Classified drugs based on type (e.g., antibiotics, pain relievers, vitamins, etc.).
- Maintained records of expired or out-of-stock drugs.

<b>Date</b>	<b>Drug Name</b>	<b>Category</b>	<b>Total Stock</b>	<b>Stock Used</b>	<b>Remaining Stock</b>	<b>Expired Stock</b>	<b>Out of Stock</b>
2024-08-05	Amoxicillin	Antibiotic	500	50	450	0	No
2024-08-08	Paracetamol	Pain Reliever	300	80	220	5	No
2024-08-15	Vitamin C	Vitamin	200	40	160	2	No

### **Tracking Finished Products (Stock Depletion Analysis)**

- Kept records of drugs that were sold out and required restocking.
- Identified seasonal trends in drug sales (e.g., increased demand for cold medications during harmattan).
- Used Excel sheets or Google Sheets to track and update stock levels.

### **Analysis of Most-Selling SKUs (Stock Keeping Units)**

- Identified high-demand drugs based on sales records.
- Used statistical measures like frequency distribution to analyze the top-selling medications.
- Visualized sales trends using bar charts and line graphs in Microsoft Excel or Google Sheets.

### **Analysis of Slow-Moving SKUs**

- Identified drugs with low sales frequency.
- Compared purchase rates to determine which drugs were underperforming.
- Recommended price adjustments or promotions to improve sales.

## **TOOLS & STATISTICAL METHODS USED**

The following tools and techniques were applied during the training:

### **Tools Used**

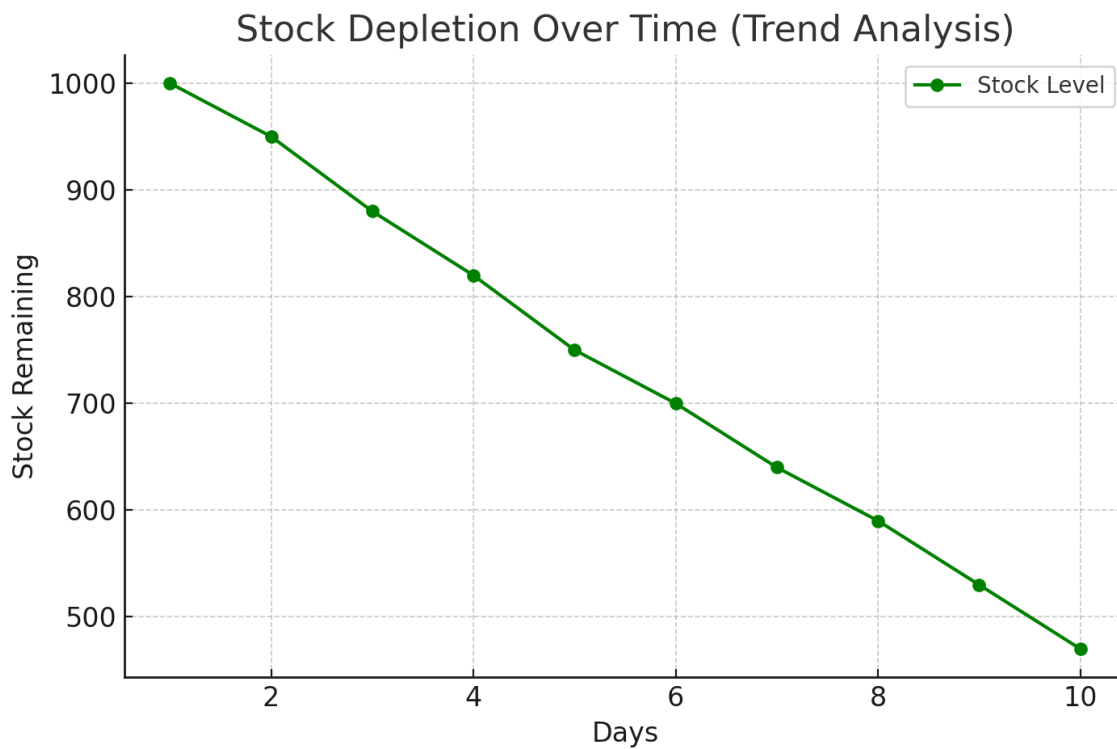
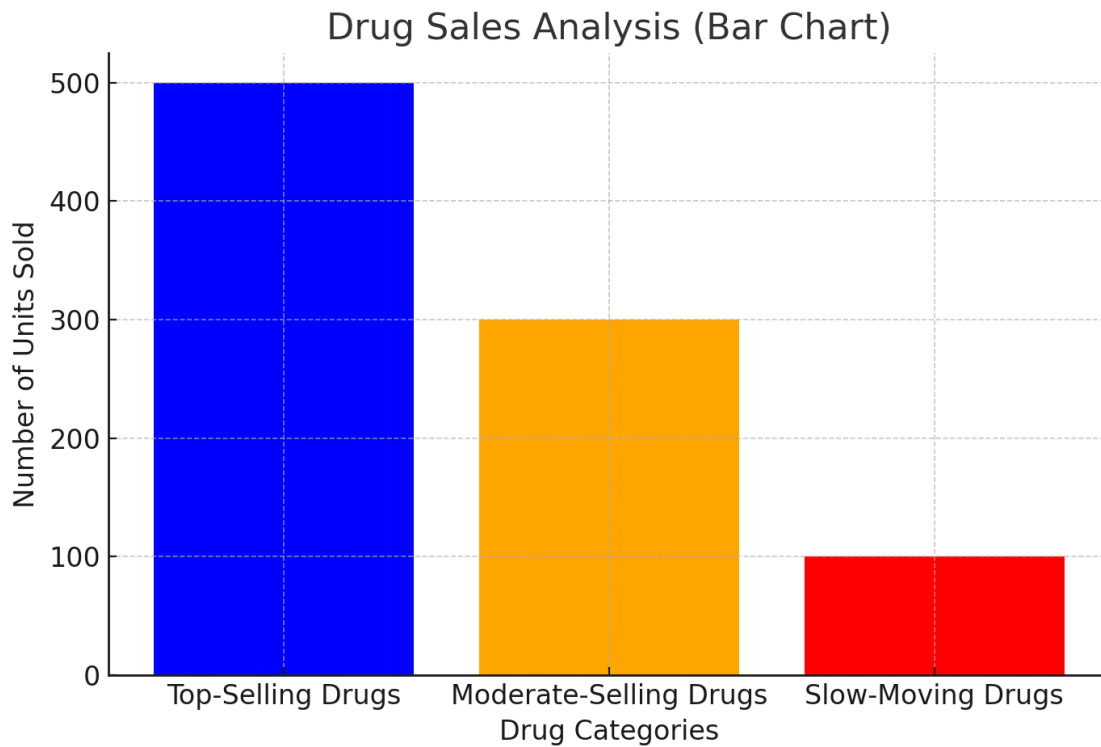
- **Microsoft Excel / Google Sheets:**
  - Used for recording and organizing inventory data.
  - Applied formulas for summation, averages, and trend analysis.
  - Created bar charts and pie charts to visualize drug sales trends.
- **SPSS:**
  - Used to analyze patterns in drug demand.
  - Performed descriptive statistics on sales data (mean, median, mode, and standard deviation).
- **SQL:**
  - Used to query the pharmacy's sales database (if digital records were maintained).
- **Power BI / Tableau:**

- Used for data visualization and interactive dashboards for sales performance.



## Statistical Techniques Applied

- **Descriptive Statistics:**
  - Mean, median, and mode to understand average drug sales.
  - Standard deviation to measure variability in demand.
- **Trend Analysis:**
  - Used moving averages to predict future stock needs.
  - Compared past sales data to forecast demand.
- **Pareto Analysis (80/20 Rule):**
  - Identified the 20% of drugs that contributed to 80% of sales (high-impact SKUs).
- **Data Visualization:**
  - Bar charts for best-selling drugs.
  - Line graphs for tracking stock depletion over time.
  - Pie charts for slow-moving and fast-moving products.



#### SKILLS ACQUIRED

- Ability to collect, organize, and analyze inventory data efficiently.
- Proficiency in Microsoft Excel for inventory management.

- Knowledge of statistical techniques in sales analysis.
- Improved data visualization and reporting skills.
- Enhanced problem-solving skills in business inventory decisions.

### **Challenges Encountered**

- **Incomplete Data:** Some sales records were missing, affecting data accuracy.
- **Manual Data Entry Errors:** Typographical errors when entering stock details.
- **Limited Use of Statistical Software:** The pharmacy mainly relied on manual records rather than automated systems.

### **Solutions Implemented**

- Verified data accuracy by cross-checking inventory records daily.
- Used Excel formulas to minimize data entry errors (e.g., data validation).
- Suggested digital record-keeping to improve efficiency.

## CHAPTER FIVE

### SUMMARY, RECOMMENDATION, AND CONCLUSION

My experience at **ANUOLUWA PHARMACY OGUN STATE**, was a wonderful experience and I have come to say that studying **STATISTICS** without practical, could be regarded as a waste of time, resources and energy because the training has helped me a lot.

I was taught on how to collect **data, inventory management, and statistical analysis** in a real business environment.

### RECOMMENDATION

- Pharmacies should adopt **automated inventory systems** to improve stock management.
- More emphasis should be placed on **statistical software training** for students to analyze business data effectively.
- Future students should work on **predictive analytics** to help pharmacies forecast demand and avoid stockouts

### .CONCLUSION

The SIWES experience provided hands-on exposure to **data collection, inventory management, and statistical analysis** in a real business environment. I gained insights into how **statistics** plays a critical role in **inventory control and decision-making** in a pharmacy.

SIWES really helps student a lot by also allowing student to connect with people that are already practicing in the field. All thanks to the Government, **ANUOLUWA PHARMACY**, Kwara State Polytechnic and my Department.