



A TECHNICAL REPORT

ON

**STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME
[SIWES]**

HELD AT

**BLESSING MULTIPURPOSE COMPANY
OLALEYE BUILDING, OTTE AREA, ILORIN, KWARA STATE**

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DEDICATION

This Technical report is dedicated to Almighty Allah for sparing my lives throughout this programme.

ACKNOWLEDGEMENT

I give thanks to Almighty God for given me the grace and opportunity to participate in this SIWES programme. May his name be praise forever

I want to specially appreciate the effort of my parent **Mr. & Mrs. Ajala** for their financial support and their moral support, they will live to eat the fruit of their labour.

I also acknowledge my amiable and capable SIWES coordinator, I will be an ingrate if I fail to mention my SIWES Supervisor and my Lecturer in Business Administration Department for their tremendous effort in my life and the knowledge they have impacted to me

May Almighty God bless every one of you (AMEN)

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CHAPTER ONE

1.2 INTRODUCTION TO SIWES

In the early stages of Business Administration, Nigerian Students were graduating from their respective Institutions without any technical knowledge or working experience. According to Akereloja (2008), acquisition of practical skills is an antidote of meaningful development in any society. In accordance with Akereloja's view, Odiagha (1995) also posits that practical knowledge is learning without which mastery of an area of knowledge may be too difficult to achieve and that practical knowledge involves developing skills through the use of tools or equipment to perform tasks that are related to a field of study.

As a result, the Federal Government of Nigeria introduced the Student Industrial Work Experience Scheme (SIWES) programme in Tertiary Institutions in 1975 to ensure acquisition of field practical knowledge and skills by Students before graduation, and to further expose Students to Industry based skills that are necessary for smooth transition from classroom to the labour world, providing the students with the basic prospects to be part of real work situations outside the lecture room. Thus, it became obligatory for Students in Tertiary Institutions, mostly those studying Business Administration related courses to embark on SIWES programme in order to acquire practical knowledge and working skills prior to graduating from their various institutions of learning. To this end, the Business Administration profession like other course professions require practical skills. Hence it became imperative for Students of Urban and Regional Planning to embark on the SIWES programme so as to acquire the necessary practical skills required for the profession before graduation

1.2 DEFINITION OF SIWES

The student industrial working experience scheme is a Program that constitutes immensely to building of technical skills available to the Nigeria economy, which are needed for the national industrial development.

1.3 HISTORICAL BACKGROUND OF SIWES

The Student Industrial Work Experience Scheme (SIWES) was established in 1973 by the Industrial Training Fund (ITF). Prior to the establishment of the Scheme, there was a growing concern among our Industrialists that graduates of our institutions of higher learning lacked adequate practical background studies preparatory for employment in industries. It is against this rationale for initiating and designing the scheme was hinged.

Consequently the scheme affords students the opportunity of familiarizing and exposing themselves to the needed experience in handling equipments and machinery that are usually not available in their institutions so as to smoothen their entry into industrial practices on completion of their studies and also reduces period spent in training fresh graduates as new employees.

1.4 AIMS AND OBJECTIVES OF SIWES

SIWES is strategized for skills acquisition, therefore, the key aim is to bridge the gap between theory and practice by exposing students to the industrial environment and enable them to develop occupational competences so that they can readily contribute their quota to national economic development and technological advancement after graduation.

The Specific Objectives of the Scheme as outlined in the Industrial Training Funds Policy document no.1 of 1993 are as follows:

- To provide placements in industries for students of higher institutions of learning approved by relevant authorities (NUC, NBTE, NCCE) to acquire experience and skills relevant to their course of study.
- Prepare Students for the real work situations they will meet after graduation. Expose Students to work methods and techniques in handling of equipment and machinery that may not be available in school. Makes transition from School to the labour World smooth and enhance Student contact for later job placement.
- Provides Students with the opportunity to apply their knowledge in real life work situation thereby bridging the gap between theory and practice.

1.5 REASONS FOR TRAINING

Reason for the industrial training are as follows:

1. The knowledge acquired in the classrooms are not enough due to lack of practical
2. The program has also helped to distinguish between class and practical work
3. Class room theories cannot be compare with the practical work done on the field.
4. The Siwes program has proved a means of opportunity for students to handle some sophisticated equipment not found in the school

1.6 THE MAJOR DOCUMENT OF ITF

1. PLACEMENT LETTER: This is the formal letter of the placement to be submitted to any employer by each students
2. THE JOB REPORTING FORM: This form is to be completed by students before he/she settle down with the employer. The information on the form will assist the central and department during supervision visits. Failure to return this form is taken as non participant in the program.

3. THE TRAINING LOG BOOK: This has to be completely filled daily and signed weekly by industrial based supervisor, and this logbook carried detailed information about work carried out daily, the logbook must be with you daily.

CHAPTER TWO

2.1 A BRIEF HISTORY OF THE COMPANY

The Blessing Multipurpose Company is responsible for developing the business sector of the Nigerian business, with a view to growing the business, driving income growth, accelerate money and food security, generating employment and transforming Nigeria into a leading global business market, through the commodity value chain concept of the business development.

The idea is to treat money as a business and not as a development program, concentrate on develop where Nigeria has comparative advantage and develop strategic partnerships to stimulate investment in the country. The Marketing promotes business, encourages business development, supports private sector institutions and broadens stakeholders' partnership to facilitate buy materials for market based industries, diversify market along commodity value chains and generate foreign exchange earnings for the country.

The Blessing Multipurpose Company has 2 major departments:

- **Electrical Departments:** Business (Marketing and Sales) of electronics and electrical facilities..
- **Service Departments:** Finance, Human Resources, Procurement, PPAS (Plan, Policy, Analysis & Statistics) and Co-operatives. Share4dev

CHAPTER THREE

3.1 INTRODUCTION

The establishment of new industries and businesses is important for people looking to invest and become part of the growth of a company or an industry. Think how many early investors in Facebook or Amazon, or Apple benefited from investing in these business enterprises.

Furthermore, the profit earned by the investors as a result of the company's successful operation contributes to the accumulation of a greater quantity of savings, which may be used to fund future businesses. As a result, business is crucial in creating investment possibilities.

To sum up, business enterprises produce goods and services in exchange for commercial benefits. As drivers of innovation and investment, problem solvers, creators of jobs, and stimulants to the overall economy, these enterprises serve a vital function in our society.

Business enterprise meaning

To understand the meaning of the term business enterprise, you first have to understand the difference between a social enterprise and a business enterprise.

An enterprise can be defined as undertaking an activity that requires a lot of effort to develop.

A social enterprise involves helping others without receiving a commercial benefit in return. On the other hand, a business enterprise consists of producing goods or services in exchange for commercial and financial benefits.

Examples of business enterprises include all the companies you pay to receive a good or service from. These may include your local shop or your Netflix subscription, both of which are business enterprises.

A business provides goods and services to what we call customers. Goods refer to physical goods that usually go through a production process. This may involve bicycles, chocolate, or whatever item you pay to receive.

Other businesses provide services instead of physical goods; this involves intangible products, such as a private lesson from a math teacher or personal trainer.

All these goods and services are delivered to customers. A customer refers to anyone who purchases these products. Consumers use the product or service but do not necessarily buy them.

For instance, if your parents pay for your Netflix subscription, you are the consumer and your parents are the customer. If they also watch Netflix with you, they become consumers and customers simultaneously.

The business enterprise depends on customers, goods, and services for its very existence. These three components are intrinsically linked to the meaning of business.

3.2 TYPES OF BUSINESS ENTERPRISES

There are many types of business enterprises providing a wide variety of services or products. Business enterprises can be classified into three main categories, according to the production stage:

Business Enterprise: Primary sector

The primary sector involves businesses that are at the beginning of the production processes. These businesses make sure that the raw materials are created and produced to be used later by other companies.

Primary companies are mostly made of business-to-business (B2B) models, where you have one business supplying to the other. For example, oil exploration companies produce oil that retail companies sell, or other businesses use for production processes. Restaurants use agricultural goods produced by this sector to provide meals to their customers.

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Business Enterprise: Secondary sector

The secondary sector consists of business enterprises at the second step of the production process. These businesses use raw materials produced from the primary sector to develop into new goods and services. For example, car manufacturers use raw materials to build new cars, which they later supply to customers.

Examples of companies in the tertiary sector include banks that help individuals get loans or airline companies that enable one to fly around the world.

3.3 FUNCTIONS OF A BUSINESS ENTERPRISE

The four basic functions of a business enterprise are Finance, Operations, Human Resources, and Marketing.

Business Enterprise: Finance

One of the essential functions of a business is raising and managing money. A business enterprise may use internal or external sources of finance to raise the

funds needed to get the business going. Internal sources of finance involve the money that business owners invest in their own business.

In contrast, external sources of finance involve cash from outside sources, such as money from family, banks loans, and investors. After the money starts moving around the business, the business managers should manage it cautiously so they don't have too many costs, thereby failing to make any sales.

Business Enterprise: Human Resources

Another important function of a business enterprise is that of human resources. A business needs to get the right human capital to provide goods or services. This entails hiring people with the necessary expertise and skill set that the production process requires.

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Functions of a business enterprise include Finance, Operations, Human Resources, and Marketing.

Reasons why business enterprises are important: economic development, solving problems, creating jobs, and investment opportunities.

Types of Business/ Enterprise

From the perspective of ownership and management, business enterprises can be broadly classified under three categories.

1) Private Sector Enterprises: Enterprises owned, controlled and managed by private individuals fall under this category with the main objective of earning. Contains:

- A) Sole proprietorship
- B) Participation
- C) Joint Hindu Family Business
- D) Cooperative
- E) Company

2) Public Sector Enterprises: Business enterprises owned, controlled and operated by public enterprises, with the primary goal as secondary goal and welfare as profit, fall under this category.

Either whole or most of the investment in these ventures is done by the government such as:

- A) Departmental undertaking
- B) Public corporation
- C) Government companies

3) Joint Sector Enterprises: As the name suggests, the joint sector is a form of partnership between the private sector and the government where management is generally in the hands of the private sector, and adequate representation by the government on the board of directors. is. Resources in such enterprises are mostly generated equally.

Thus, one of the first decisions an entrepreneur must make for his new venture is how the business should be structured.

From the entrepreneur's point of view, the most commonly chosen forms for starting a new venture are:

- * Sole proprietorship
- * Partnerships
- * Company

4.1 Wires and Wirings

Mastering the **types of wire** can mean all the difference between safety, efficiency, and industry compliance in electrical and construction fields. Wire is the lifeline to so many systems, carrying currents that power our homes, industries, and technologies. It shall, therefore, thoroughly explore a range of wires, their unique properties, application in various sectors, and considerations for optimum usage.

The Various Types of Wires

1. Copper Wire

Copper type wire may probably be the most familiar type used in many applications. This is so because it exhibits brilliant conductivity and flexibility. It finds broad usage in electrical cabling for residential, commercial, industrial, and other uses. The high conductivity exhibited by copper minimizes energy loss, hence being appropriate for transmitting electricity over long distances efficiently.

2. Aluminum Wire

Another very common choice, especially on power distribution networks, is **aluminum types wire**. Though not as conductive as copper, aluminum is much cheaper and has a lighter weight, which can be helpful in large installation scales. Proper installation procedures, however, are still necessary to overcome the inherent difficulties that may arise with the oxidizing tendency of aluminum.

3. Steel Wire

Major applications for **steel wire** are only confined to the structural areas where strength and durability become prime concerns. Extensive usage is found in the construction industry, more precisely in the reinforcement of concrete structures, fencing, and suspension bridges. This, then, becomes the base for steel wire applications under tension, reflecting its requirement in an environment that demands strong support and the aspect of longevity.

4. Nichrome Wire

Nichrome wire is self-setting because it is capable of withstanding high temperatures without oxidation, with an alloy percentage of nickel-chromium. It also allows itself in appliances like a toaster, oven, and industrial furnace, which require uniform and precision in heat production.

5. Tinned Copper Wire

Tinned copper wire is copper wire with a thin layer of tin over it so as to enhance its capability of resisting corrosion. This type of wire is used in marine and automotive wiring and wherever exposure to moisture and oxidation is likely. Tinning also eases soldering, therefore giving an easy way to make reliable soldered joints.

here are some **types of wire** commonly used:

Solid wire: The kind of wire employed in applications where flexibility is not required, such as in-house electrical wiring.

Stranded wire: This kind of wire consists of many thin strands that have been twisted or even braided together, making it quite flexible and durable. This kind of wire is applied in various types of electronic devices and appliances.

Twisted pair: Consists of two insulated wires wound together. The role of this type of wire is to prevent electromagnetic interference. It is common in cords and network wires for telecommunications.

Coaxial cable: It has a central conductor wire with insulation, a braided wire shield, and an outer insulating layer. It is mainly used in cable television and computer networking.

Shielded wire: This is wire with an added layer of shielding, usually foil or braided wire, protecting the wires from electromagnetic interference; it is mainly used in sensitive electronic circuits.

Hook-up wire: It is a single insulated wire used in low-current and low-voltage works, like breadboarding and other electronic duties.

Ribbon cable: A flat cable with a multiple of conductors, side by side. This type of cable is applied with computers and peripheral devices where space is saved and organization is deemed important.

Barbed wire: A fencing wire that comes with sharp edges or points, used for security fencing.

4.4 Applications of Various Types of Wire

Wiring of Buildings

Any building, commercial, industrial, or residential, prefers copper wire for its huge conductivity and proven safety record from starting time. It ensures a good flow of power without any risk of overheating and electrical fire. This particular case becomes highly appreciable especially with regard to the checking of building safety codes.

Power Transmission Networks

Across enormous power transmission networks, **aluminum wire** supports a larger stage in bringing electricity from generating stations to eventually distribution substations and then to homes and businesses, because of its lightweight and this reduces the cost of installations. allowing easier handling over long distances.

Industrial Applications

In industrial environments, **steel wire** is indispensable for reinforcing concrete structures, securing loads in shipping containers, or heavy-duty fencing. It possesses the strength and durability for very demanding applications where questions of safety and reliability are not allowed.

Heating Elements

Nichrome wire is an excellent choice for heating elements in heating appliances and industrial machinery. This is because it possesses a very high electric resistance when at high temperatures coupled with an enormous predictable function. Most of this heating system equipped with Ni-Cr wire achieve smooth running. Due to this predictable and consistent heat maintained, these devices give a very long span of life.

Special Environments

A tinned **copper wire** is therefore only found in few special environments, for instance in marine vessels and in automotive use for their wiring harnesses. Its intrinsic resistance to corrosion safeguards long-term

service in harsh conditions where moisture and salt destroy their naked counterparts.

Considerations for Choosing the Right Type of Wire

Conductivity Requirements

While selecting wire for any application, its conductivity against the electrical load is always a primary consideration. **Copper wire** leads in all high conductivity applications, and aluminum wire offers a lower-cost alternative where lower conductivity is not of major concern.

Environmental Conditions

Wire material selection is made depending on environmental conditions like moisture, temperature extremes, and chemical exposure. Tinned copper wire is used in corrosive environments, while Nichrome is used in high-temperature applications; this allows for assurance of its reliability and safety in the long term.

Regulatory Compliance

Local and international standards on electrical and construction materials are very imperative. The selection of wires that meet or are above the threshold of these standards leads to compliance with safety regulations and reduces risks related to substandard materials.

Causes and Risk Factors

- Environmental factor
- Mechanical Stress
- Corrosion & Oxidation

Oxidation Diagnosis and Tests

- Visual Inspect
- Electrical Testing Methods

Treatment Options

- Repair vs. Replacement
- Upgrading Wire Performance

CHAPTER 5

CONCLUSION

During the course of the four months' period of SIWES (Student Industrial Work Experience Scheme) at Blessing Multipurpose Ventures, I have been informed on the various **types of wires** that are available today for application in electrical engineering, construction and industry generally gives one an upper hand. Various classes of wires provide specific characteristics that best suit various needs; from conductivity and durability to heat resistance and stopping corrosion. Proper selection of wire means that professionals can be sure of efficient performance, safety and compliance with industry standards and have had the opportunity to experience the application of theoretical knowledge acquired in the classroom to solve real problems. Thus, SIWES has been a success, because I have gained knowledge that ordinarily would not be obtained in the lecture hall.

RECOMMENDATION

As a result of difficulties experienced during the four months SIWES program, I would like to recommend the following changes: The duration of SIWES should be extended so as to enable students be more experienced. The ITF should make monthly allowance available for students, so as to put an end to financial difficulties that may arise as a result of transport problems. The Institutions and ITF should help students to get a place of attachment so that the program may commence as planned.

The following recommendations were based on the findings of the study and as a solution to the identified problems.

PROPER COORDINATION AND SUPERVISION OF THE EXERCISE: The various bodies involved in the management of the SIWES exercise i.e. Industrial Training Fund (ITF), NUC, NBTE and NCCE should come together and fashion out a modality that will ensure smooth operation of the SIWES exercise. Efforts should be made to ensure that students attached to the organization are properly supervised to ensure that what

they are doing is in line with the objectives of the SIWES exercise.

The various bodies involved in the management of the SIWES programme should liaise with the various industries ahead of time so as to minimize or reduce to the barest minimum the high level of refusal to accept students for their industrial training participation.

ISSUING OF LOG BOOKS/IT LETTERS ON TIME: The log books used by the student during the industrial training period and the IT letters should be issued to the students at the end of the first semester exam as against the end of second semester examination as this will afford the students enough time to search for places that are relevant to their field of study.

EMPLOYMENT OF EXPERTS: The various institutions should endeavor to employ experts in the areas of career development to manage the student's industrial placement centers.