**CHAPTER ONE**

**INTRODUCTION**

* 1. **BACKGROUND OF STUDY**

Logistics is that part of the supply chain process that plans, implements and controls the effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption, in order to meet the customer’s requirements (Reji ismail, 2008). Logistics is the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption for the purpose of conforming the customer requirements (Amercian council of Logistics management, 2011). Logistics essentially a planning process and an information based activity. The science of planning, organizing and managing activities that provide goods or services

Logistics information system (LIS) involves the integration of information, transportation, inventory, warehousing, material handling and packaging. Logistics information system, information can be as lifeblood of a logistics and distribution system. The effectiveness and accuracy of distribution systems depend on the transfer of information. Logistics information system holds the whole system and coordinates all the components of logistics operations: planning and coordination and operation. Planning and coordination defines nature and location of customers that supply chain operations seek top match to planned product and services and promotions (Shivani Dubey and Dr.Sunayana Jain, 2014). A logistics information system links up the logistical activities. It integrates a number of information sources, including the order information, purchasing information, production information schedule, the packaging information schedule, the transport and warehousing information, the distribution information, the payment information and the delivery information. It serves to enable logisticians retrieve date as and when it is required, process data through the system and analyze data. (Voortman.C, 2004).

LIS is an information system that provides management with relevant and timely information related to logistics. Implementing information technology in retail outlets to bring number of benefits in that industry. LIS as a computer-based information system that supports every aspect of the logistics management process, which involves the coordination of activities, such as scheduling, inventory replenishment and material flow planning. Through Information System, suppliers, manufacturers, and customers are integrated into a logistics network for efficient supply chain management. The global nature of logistics now requires information systems that enhance inventory control, track orders and materials and monitor resource utilization. Information systems and computer technologies are vital to the development of an organization willing to understand and attain to customers’ requirements and needs. The ability of a company to optimize its logistics costs and levels of customer service is affected by the LIS it uses. Add that these systems are extremely important in reducing inventory and lead time along the supply chain. The effectiveness and accuracy of distribution systems depend on the transfer of information. Logistics information system holds the whole system and coordinates all the components of logistics operations: planning and coordination and operation. Planning and coordination defines nature and location of customers that supply chain operations seek top match to planned product and services and promotions.

According to the Council of Supply Chain Management Professionals (previously the Council of Logistics Management) logistics is the process of planning, implementing and controlling procedures for the efficient and effective transportation and storage of goods including services and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements and includes inbound, outbound, internal and external movements.

Third-party logistics (3PL), a relatively new industry, has gained momentum since the emergence of global market and the Internet, in particular electronic commerce (e-commerce). Global competitive-ness places more pressure on companies to improve their delivery performance of products and services to customers. In an effort to improve the quality of delivery service, companies have outsourced their logistics services, including packing, warehousing (inventory management) and shipping of goods to customers. Communication plays an important role in integrating the activities along the logistics value chain. Information technologies such as electronic data interchange (EDI), the Internet, World Wide Web (WWW) and e-commerce have contributed greatly to improving communication with partners in the logistics chain. In particular, real-time information systems such as web-based logistics information systems help to improve 3PL services. In this paper, a case study of e-logistics is used to illustrate the implications of information technology, in particular the Internet, WWW and EDI, on the performance of the logistics value chain. A framework based on the literature survey and case study is proposed to help companies develop an e-logistics system to improve their competitiveness.

* 1. **STATEMENT OF THE PROBLEMS**

Logistics is important in physical and economic development of towns and cities all over the world. Property tends to increase in areas with expanding transportation networks, and increase less rapidly in areas without such improvements. Rapid and continued rise in housing and land prices are expected in cities with transportation improvements and rapid economic and population growth (Goldberg, 1970).

For most of companies, the management of the long-distance supply chain may not be the core competence of them but cost and time consumed for it is troublesome. Therefore, many companies tend to go for logistics services and services with the right system for time, customer, and cost management. Christopher (1993) also advocated that logistics management is no longer a passive and costly function but a strategic section of which provides competitive advantage.

Couriways Nigeria Limited being a logistics provider company has a one mode of operation of which clients who wishes to have their package delivered to a certain location has to go to any of the company’s branches to get the package registered and delivered. This mode of operation limits the Case Study to only clients willing to take their packages to the company’s branch, hence the need for a more reliable system which can accommodate all kinds of client while managing human resources.

* 1. **OBJECTIVES OF THE STUDY**

The Aim of this research work is to carefully study the mode of operation in Couriways Nigeria Limited including the existing system functionalities, and then propose a system to tackle the limitations witnessed in the existing system.

The system performs a variety of activities pertaining to the processes in the logistic context of Couriways Nigeria Limited businesses. The system should handle the end to end process staring from initiating a logistics order, driver pickup and delivery. The system covers all the controls and processes involved, hence it is recommended to automate the process by developing the relevant software as the world is moving from manual working to information and technology era where computerization becomes important in all part of life.

* 1. **SIGNIFICANT OF THE STUDY**

The significant of this project is the designing of a robust and secured web based Logistics Management System which supports the high availability of courier services to the business and to the customer. The system is being used for day to day activities such as booking a courier, maintain hub details, and maintain company details, process data of companies and many other things. The LIS is programmed using a high level programming technologies and can be customized to fit businesses and can either be used as a complete system or as separate modules.

* 1. **SCOPE OF THE STUDY**

The scope of this study is centered on designing an Electronic Logistics management system for CouriWays Nigeria Limited. In fact it involves all parts of logistics field in terms of transporting client’s packages. However, this project has been limited to Managing packages from the point of booking to the delivery point which includes the following areas:

* Client registration
* Clients contract management
* Registration of packages
* Booking of shipments
* Shipment tracking
* Package singular tracking
* Delivered package acknowledgement
* Shipment cancellation

Package tampered claims

* 1. **LIMITATIONS OF THE STUDY**

An LIS is one method a logistics company uses to obtain reliable information regarding its business operations. The LIS should not be concerned with whether the information can be retrieved, but rather how and what information should be retrieved so management can make effective decisions, and all this comes with some limitations.

The limitations identified in this project work are as follows;

**Cost**: LIS implementation can be very expensive for companies looking to manage their operations more effectively. All divisions and processes must be reviewed when determining what information management wants extracted for decision purposes. The cost of this review followed by the installation costs can be extremely expensive for large companies. Additionally, new employee hiring or employee training related to the LIS can also add to the implementation costs.

**Employee Training:** Properly trained employees are a critical part of an LIS. Employees are at the front lines of business operations and create or manage the daily activities of the company. If an LIS finds a system flaw or management decides to change a process based on the LIS information, re-training employees will usually be required. The length and depth of the training may vary, making it difficult to estimate the cost of this training. Management will also have to account for the lost productivity during this training period.

**Flexibility**: Once an LIS is created and installed in a company, it may prove to be an inflexible system. Making changes quickly to reflect fluctuating business operations may not be possible depending on the LIS style and functionality. While correcting policies such as internal controls or operating procedures may be easy, company-wide changes such as service changes or operation strategy may not be simple. Major business changes will require major changes to the LIS, leading to increased costs and downtime of information reporting.

**Information Flaw**: The LIS is designed to provide information to management so sound decisions can be made regarding company operations. The biggest flaw an LIS can have is pulling incorrect or inadequate information for management. This problem results in wasted time and money for the company, leading to another review of the LIS to correct the information flaws.

**Security**: Thieves and hackers get access to identities and corporate saboteurs target sensitive company data. Such data can include vendor information, bank records, intellectual property and personal data on company management. The hackers distribute the information over the Internet, sell it to rival companies or use it to damage the company’s image.

* 1. **PROJECT WORK ORGANIZATION**

The report is explained in details from Chapter 1, which contains the preliminary part of the project that discusses the procedures/methods used in carrying out the research.

Chapter two discusses the literature review of various researchers in the field and their analysis.

Chapter Three discuss the system design and methodology that explains the methods used.

Chapter Four explains the system analysis, Implementation and Integration that delivers the implied system of the work.

Chapter Five discussed the summary, recommendation and conclusion of the project.

* 1. **DIFINITION OF TERMS**

**System**: A set of things working together as a mechanism or interconnecting network.

**Computer:** An electronic device which is capable of receiving information (data) and performing a sequence of logical operations in accordance with a predetermined but variable set of procedural instructions (program) to produce a result in the form of information or signals.

**Logistics**: The commercial activity of transporting goods to customers.

**Transportation**: The action of transporting or the state of being transported.

**Warehousing**: The act of storing raw materials in a large building.

**Records**: These are collection of related fields.

**Software**: This is an application or program that can be run on computer.

**Storage**: This is a processing of storage data and information using storage media. **File**: These are collection of related records.

**Information**: this is a data that has been processed into a form which is meaningful to the recipient and which is of perceived value in either current or prospective decisions or action by the recipient.

**Management**: This is the process of getting activities completed efficiently with and through other people.

**Database:** A structured set of data held in a computer.

**Data:** The quantities, characters, or symbols on which operations are performed by a computer.

**Network:** A group or system of interconnected people or things.

**Password:** A secret word or phrase used to gain admission or access to something.

**Design**: The purpose or planning that exists behind an action or object.

**Integration:** The action or process of integrating.