# CHAPTER 1: PROBLEM IDENTIFICATION

## 1.1 **Introduction**

In today’s market, small scale businessshould quickly adapt to the ever-changing technology to minimize overhead, lower cost of operation, and help to stay competitive. Everybody needs software, which can facilitate store operations and make their day-to-day lives much easier. Small scale businesssystem is an application software designed to take advantage of today’s technology and reduce or avoid the burden of storing data on paper and in files. This facilitates moving purchase, sales, and customer information, as well as supplier and company data, from paper to digital media on a secured server. Sales and purchase bills can be generated as needed. Each store has an option to store their data on one remote central database server. This will also allow stores to access information from other partner stores. This would in turn lead to information sharing, so that all the stores are aware of each other’s current inventory. It will be useful when ordering new purchases to avoid overstocking.

### **1.1.1 Background of the study**

The concept of the Small scale businessManagement system has been around for a long time, but it is still in the phase of discussion and design. Initially, all inventory and billing reports were managed manually by shop owners/employers using ledger- based systems. This requires a significant amount of time due to repeated access of the data. There is a high risk of lost or stolen data in that system. Storing old data is also one big factor. Store have to spare one separate room to store this information. Paper- based documents might lose their information with time, and after some years can’t really read them at all. So the Small scale businessManagement System is designed to reduce paper- based data storage system and provide digital touch to billing and inventory system

## **1.2 Investigation and description of current system/Literature on existing similar systems.**

### **1.2.1 Description of current system**

The problems of the existing manual system of Small Scale Business System (SSBS) include among others the following:

* **Too much paper work:** The process involves too much paper work and paper storage which is difficult as papers become bulky with the population size.
* **Errors during data entry:** Errors are part of all human beings; it is very unlikely for humans to be 100 percent efficient in data entry.

### **1.2.2 Literature on similar existing systems**

1. **Transformation from paper to computer based system**

A modern digital inventory management system must have the ability to keep track of sales and inventory. It should also provide communication means to contact suppliers as needed. It should also allow the incorporating shop owner’s ideas to be implemented into the system. Implementing the idea of the previous section is practical for an inventory system, and requires combining many technologies into one common approach. The time taken by a customer care representative of any mobile store to enter information in the computer represents a base of the modern Mobile Store Management System <http://money.howstuffworks.com>

Merchants used to write down inventory and sales details. They had to search their paper records to estimate future needs and retrieve old sales information. They had to spend significant amount of time every day for such work. After the Industrial Revolution, efficiency and accuracy became the major factors of business, along with significant change in positive customer care to increase sales. A team at Harvard University designed the first modern check-out system in the early 1930s <http://money.howstuffworks.com>. That system needed punch cards associated with items details. A system would gather information from the punch card and send it to stored data. As the system that was used by that time was too expensive for general merchants, this was the first time a store management system was transformed to a computerized system. Although it was very expensive, as computer systems during that time were relatively new and too expensive, this new innovation opened new dimensions to a store management system. Yet, the shop owners knew that they would need a better management system, and then different ideas for management systems were introduced, such as bar code scanner, RFID- based scanning systems. Merchants knew they needed a better system, and researchers created the forerunner of the modern bar-coding system in the late 1940s and early 1950s <http://money.howstuffworks.com>

1. **Point-of-Sale system: an innovative proposal**

During evolution from traditional management system, mechanical registers were also replaced by point-of-sale (POS) systems. POS systems helped to build capabilities and provide more important advantages. Historically, vendors of POS systems have focused their marketing efforts on large chain stores, but now they have turned their attention to small businesses because of their significant potential to grow and expand (Y. KIM AND J. LIM, 2011). Therefore, small organizations are also encouraged to use more powerful computer systems and software with a more attractive user interface that uses POS system instead of an old fashioned mechanical register system. For small organizations, such as mobile shops, product suppliers, and restaurant owners keeping transactions and inventory records is very hard and takes a lot of effort. POS system can be very beneficial for small organizations by providing smooth processes and functions This study proved that checkout processing time, which represents operational performance, was improved significantly both in the local and the remote server-client models, when an ADO data cache was embedded in the POS system. The more clients the proposed system served simultaneously, the greater savings it delivered, especially when large numbers of items were purchased in a sales transaction.

1.3 **Statement of the problem**

The complex nature of the existing small scale business system can be attributed to a number of factors:

* Most of the operations were done manually (a new product will have to manually entered on the paper) this results in a lot of mistakes being made for example he or she may miscalculate the total amounts of sales.
* Some management activities are not recorded or recorded in manually which are not efficient on running management task such as checking stock availability will have to search and find in store room by the staff themselves.

## **1.4 System objectives**

* To create a business system for small scale business software.
* To centralize and combining all features to manage business activities in one complete and efficient application for management in the shop.

## **1.5 Description of the proposed system**

The proposed business System for Glendale developed with C#.NET for the User interface and MySQL Database. The system will consist of a login page to allow only authenticated and authorized users to access the system. The system will limit what can be done based on the type of user that is logged in. There will be four user account types, as follows: Admin Panel, Supervisor, Sales Person and Manager. The system will also be composed of two forms for entering data. The first will be used to capture the products. The Admin Panel will be able to see reports, system logs.

## **1.6 Limitations/ challenges**

The researcher may face the following challenges:

* Respondents may give bias information like lying and not telling the truth about the current system
* The hierarchy in which supposed to approve for this research is too long and they are hard to find due to being busy
* Resistance to change from manual to automated system by other staff and finally as a result the research and conclusions will be carried out on the available information.
* Training users of the new system will be costly since it will require technical expertise.

## 1.7 **Scope/delimitations of the system**

The scopes of this system which is SSBS on stock information and cash register on sale transaction are including the users and constraints of this system.

* Small Scale Business is designed for a Glendale Superstore for managing the common business activities such as cashier, checking stock availability and stock information management.
* Users of the SSBS include Supervisor, Cashier and Sales Person of the shop. Supervisor and cashier will have the authority to handle cashier sales transaction while only supervisor have the authority to access stock management feature.
* The system will be designed solely for the Glendale Superstore.

## **1.8 Definition of terms**

**Data integrity**- is the assurance that digital information is uncorrupted and can only be accessed or modified by those authorized to do so or Data integrity is the maintenance of, and the assurance of the accuracy and consistency of, [data](https://en.wikipedia.org/wiki/Data) over its entire [life-cycle](https://en.wikipedia.org/wiki/Information_Lifecycle_Management),and is a critical aspect to the design, implementation and usage of any system which stores, processes, or retrieves data.

**Authorization** - The state of a user having sufficient permission in order to perform a desired task.

## **1.9. Conclusion**

After the problem where identified, the aim of the project, objectives to be achieved and justification of developing a new system, the next step is to determine how to successfully complete the project in the planning phase.