Mandi Accounting System

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Abstract — *In today's ever progressing world that is headed towards being more digital day by day, it is important that whatever you do is based on digital grounds. A man struggles to make life easier and easier. This is the life that we now live on our computers and mobiles. Every little thing is reachable at the touch of a finger. In this paper, a Mandi Accounting System is presented. It was developed to enhance the operations of vegetable and fruit market (mandi) where they can log on using unique password to register their company and also provide detail of their sales. This system will providing them the interface to maintain the records related to the market and easy generations of bills and other documents which may be of the interest of buyers or sellers and also keeps everybody related to the wholesale market up to date by sending emails and messages.[1]*
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Keywords — *Mandi Management System, digital, consumer, dealers*

I. INTRODUCTION

In customary framework directing the management of vegetable supermarkets [mandi's] is extremely repetitive work for the account managers and the Mandi owners to keep check of overall accounting including the incoming and outgoing of the products with the profits.

The whole process used to take place manually and physically till date. Data was repeatedly needed and rewritten several times. The calculations of a very large number of terms were more prone to human errors and was a hectic job to manage all such calculation. The data was needed to be used again and again for different things like billing, receipt and ledgers.

The framework goes on diminishing expenses connected with the management of the accounts and accomplishing complete computerization of accounts management including billing and ledgering.

More than one accountant can use the same account to input different data and let them coordinate in a much better manner with each other. This project will help to study the statistical data with reference to the seasons and the months in a year which can be used to predict the need and demand of the products. Currently, the research and implementation only extend to certain areas in Jammu and neighbours, but this implementation can grow and can be scaled to state and then at the national level. Currently, the web application is accessible to the local Mandis.

Scope:
1. This web application can be implemented easily in any market with minimal resources and with only basic knowledge of computers a person can easily use it.
2. It is a modern day application which uses the latest internet applications to share the information so maximum people can get benefit from it because the internet applications like WhatsApp, email, SMS are widely used.
3. It will take much less time as compared to humans in calculations and a greater level of accuracy can be achieved.

4. Any type of wholesale market can use it to automate their work related to the business.

II. PROBLEM DEFINITION

Our agrarian markets are still living in the past. Agriculture derivatives markets continue to be viewed with suspicion. [2] Various schemes are introduced by the government which has electronically unified market to introduce transparency and reduce intermediation costs like setting up of the National Agriculture Market. [3] But the issue in Jammu and Kashmir has always remained with the local sellers and consumers. For instance:

1: Too much manpower is needed for maintaining daily records, billing, and ledgers.
2: non-digitised data is too difficult to handle as, mostly the trade is pen-paper work.

III. METHODOLOGY

The Vegetable mandi is the backbone of any area or a particular state. It is the market where growers sell their vegetables to the mandi shopkeepers. These shopkeepers in return sell it to the customers from different areas.
The vegetable mandi generally works in two ways :
1: TRADITIONAL WAY:
In this method, the vegetable is bought for some fixed price by the mandi worker and they sell it to customers for any price high or low and the margin is taken as profit. In this kind of trade, the mandi worker can get more profit if the items are sold at a higher price. The mandi workers can even face losses in cases when the items face any damage or are sold at lower prices.

2: <u>THROUGH BROKERAGE</u>:

The most common form of trade in Mandi is handled on brokerage from either both sellers and customers or both. In this form of the trade, the seller or grower supplies the items to the mandi owner.

Then, the supplier is provided with a receipt for each supply which is used to keep the track of the supply as at what cost it will be sold and to whom it will be sold. For each receipt, a VATAK (bill for supplier) is provided after the whole of a lot of items under one receipt is sold.

After this, the mandi owner sells it to customers. The customer may also be asked for the brokerage in some cases but the vast majority of customers take brokerage or AARATH from grower only.

Each customer is provided with a bill for the sale of each day. The track of different items from different sellers is kept while selling the items to the customer.

At the end of the day, the bills are provided by the mandi worker to the customers and VATAKS are generated for the growers.

The VATAKS contain information like the price amount at which different items were sold.

The commission amount is lessened out, and any extra charges are also taken out providing all the sellers about the insight of their items which were sold by the mandi worker.
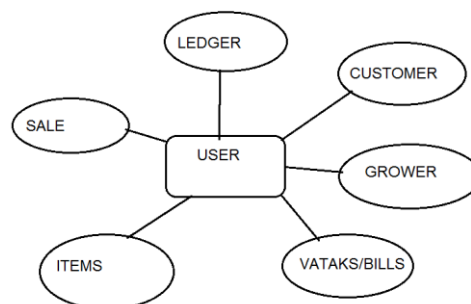

FIG: The general diagram of mandi accounting system

VI. TECHNOLOGIES USED

Mandi Management System is a software project that enhances the process of mandi. Mandi managemnt is an online web platform where mandi managers can handle their accounts. [7]The project mainly comprises of the web portal and website. Every part serves a different purpose and the people or user interacting with each part is different. This system is intended to help everyone from producer to consumer level. The basic purpose is to keep everyone updated so that they do not need to physically visit the market for the information. This system also provides a user-friendly interface to the sellers of the wholesale market to maintain and manage the accounts and the product information on a daily basis so that the statistics can be later used to assess the market risks and many other financial related issues. It will generate documents in the electronic form so that the documents can be sent over the internet using various internet applications like WhatsApp, email, SMS to reach

to the farmers, sellers, vendors, etc.

Various technologies have contributed to the different phases. These technologies are listed below.

The website is designed using C# [5]

Front End Technology uses Visual Studio .Dot Net [6]

Back End technology (if required) uses SQL SERVER 2000. This technology can use different data-base encryption choices in SQL Server. Which one works best in which situation. help protect the public rights and safety [9]
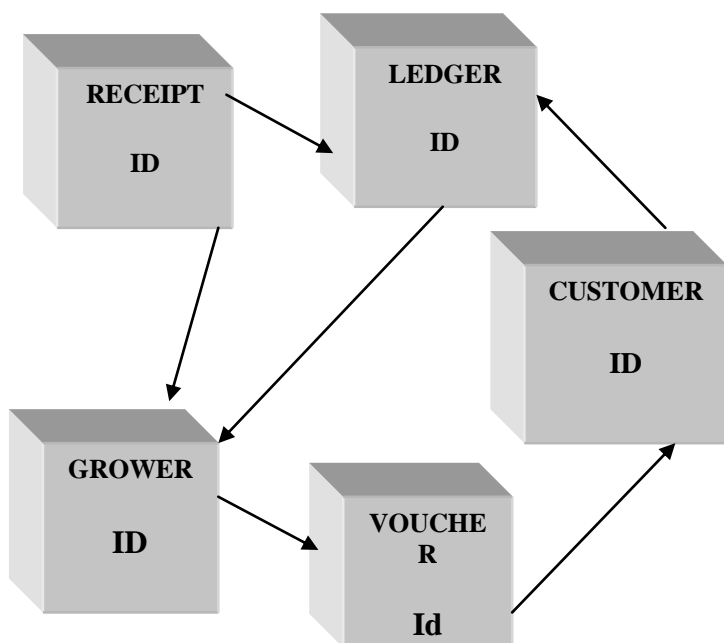

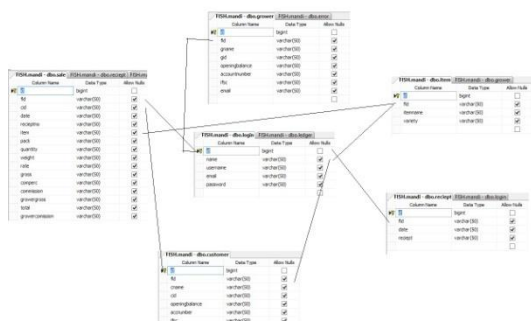Fig: E-R Diagram of relationship of receipt for
GROWER and CUSTOMER

Fig: the relation between tables in database user is core table which links to every other table sale is also linked to the customer to map the sale to a particular customer
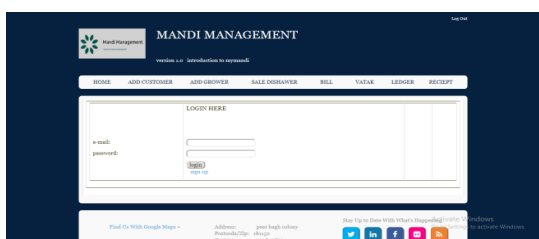
Web Portal

Figure 3: Login Portal [7]

Figure 3 shows the login portal. The authenticity
Of login credentials filled by sellers and customers
at their respective web portals is checked with the
database. If the credentials are authentic, then they
are directed to their respective dashboards, as shown
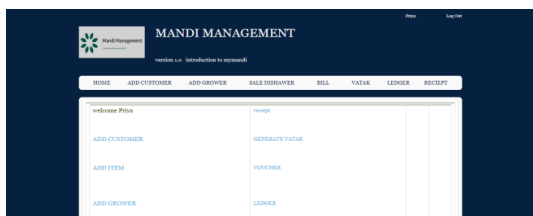in Figure 4. One can

Figure 4: Dashboard

Add customer: lets the user add a customer;
ADD GROWER: lets the user add a grower;
Bill: to generate a bill for a customer;
Item: to add items which are being sold ;
Vatak: to generate vatak for a grower;
Ledger: to check the ledger
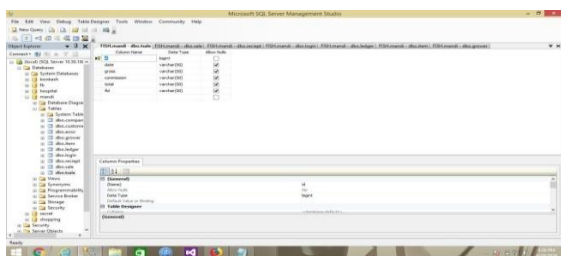Receipt: to provide a grower receipt for his supply

Figure 5: screenshot of one of database tables

Applications

1. It will guarantee the accuracy of maintaining the
records related to the marketing and it will also
eliminate the conventional paperwork.

2. It will also update the farmer about the price on
which his products are being sold in the market so
that he can easily calculate and estimate his gains.

3. It will also maintain all the records inside its
database for long so that no information is lost and it
will also keep the concerned people updated with the
Information it contains.

4. It will be also used to assess the market ups and
downs by using the data it saves on regular bases.

5. The documents like challans, Vatak, etc. will be
stored and generated in electronic formats so that
they can be sent over digital media and that
documents will be auto-generated by this application
so there are lower chances of misinformation.

CONCLUSIONS

The wholesale market seller is the actual users of
this system who will maintain the accounts of
farmers and the buyers or local vendors and will
keep them up to date with the latest information
from the wholesale market (Mandi). This system
also provides a user-friendly interface to the sellers
of the wholesale market to maintain and manage the
accounts and the product information on a daily
basis so that the statistics can be later used to assess
the market risks and many other financial related
issues.

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