Aavin Machinery Maintenance System

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Abstract

The "AAVIN MACHINERY MAINTENANCE SYSTEM" is the concepts of several machines are used in aavin milk co-operative center. This aavin milk co-operative center has produced more products used these machineries because the machine can minimize the man power. It reduced the time and improves the Quantity of production.

This project describes about machineries such as purchase cost of machines, repair cost of machines, maintenance cost of machines, usage of machines. This maintenance has some problem about maintaining the machineries. This problem can be overcome by the machinery maintenance system through computerized mechanism.

In existing system has man work and no idea about improved machineries but the existing system can use centralized machines and improved quality of machines are used and it can maintained effectively. Aavin milk co-operative center has produced many products these products are developed based on machinery. Aavin Machinery Maintenance System is used front end as VB.NET back end as SQL server.

System analysis

Existing system

The existing system does not have a systematic approach for collecting and maintaining the information about the system. The aavin milk co-operative center production system is mainly involves machinery system. Every machine has different quality based on the performance. Some machines are used long time. Some other machines are used only short time.

Drawbacks of existing system

1) Machine order system receives heavy orders and processing of this order and delivery of the goods on the required date has come difficult.

2) Every machine has depreciation process.

3) This depreciation has some economical expenses.

4) Depreciations of machines have want to update.

Proposed system

The proposed system have to maintain with computerized system. The computerized system want to update the machinery details and cost of expenses. It includes a high machinery are introduced and that details are also maintained by the computerized system. Purchase cost of machines, repair cost of machines, maintenance cost of machines and usage of machines are maintained by computerized system.

Need for proposed system

1) Reports can be taken at any point of time.

2) Similarly product wise list can be taken at any time of requirement.

3) Computerizing theproposed system to decreases the manual work of the staff.

4) Updating the machines with cost using service.

6) Identify the usage time of machines.

System configuration

Hardware configuration

The hardware for the system is selected considering the factors such as CPU processing speed, memory access speed, peripheral channel speed, printer speed, seek time & relational delay of hard disk and communication speed etc. The hardware specifications are as follows:

Operating System	:	Windows XP
Hard Disk	:	80 GB
Keyboard	:	Standard Keyboard
RAM	:	2 GB

Software specification

The software for the project is selected considering the factors such as working front end environment, flexibility in the coding language, Database knowledge of enhances in Backend technology etc.

Front End	:	Microsoft Visual Studio 6.0
Coding Language	:	Visual Basic.net
Back End	:	SQL SERVER

System design

System design is the process of planning a machines to maintain in computerized manner. The purpose of the design phase is the first step in moving from the problem domain to the solution domain. The design of the system is the critical aspect that affects the quality of the software. The

design phase translates the logical aspects of the system into physical aspects of the system.

Modules

i) Machine Details
ii) Packing Machine
iii) Machine Management
iv) Machine Services
v) Machine Import & Export
vi) Service Workers

Module description

1. Machine details

In this module, we can maintain all the machines in milk plant. It contains the

Name of the Machine
Quantity available
Usage time
Given Production

2. Packing machine

At the factory, the milk is tested to make sure it is fresh and safe to drink. It then goes through several special machines. This one heats the milk, then cools it again. This kills bacteria that would make the milk go off quickly. This process is called pasteurization. If milk from the cow is left to sit for a while, it will separate into two layers. On top is the cream. Underneath is the milk. This machine makes sure that the cream gets mixed in with the milk and won't separate out. This process is called homogenizing. The pasteurized and homogenized milk is off to be packaged. If the cream is taken out of the milk, we have skim milk. These days, milk usually goes into cartons. Or plastic containers. It used to be put into bottles. These days, big refrigerated trucks deliver the packaged milk to shops. Into the fridge. Milk must be kept cool.

3.Machine management and services

A well-trained, well-managed team of engineers is vital to the running of a milk plant. If training or management is lacking then the equipment will break down or not work effectively. With short life products such as milk, shortage, stoppages or ineffective machinery can mean disaster.

In an ideal world the engineers would be required to be a well-organized, methodical, highly-condensed team devoted to in depth planned maintenance. However, in reality what is in fact often required is a highly reactive force that can respond quickly to the unknown with the minimum of delay.

The engineering department needs to contain three teams; engineers, electricians and support team. Each team should be independent in structure but capable of inter-dependence with the other enquiry teams and other working groups within the milk plant. For example, in a creamery receiving 100 000 liters per day, there will be variants depending on the exact produce mix. Assuming that two shifts are worked, the expected manning levels would be six to eight working engineers and electricians per shift. The age and complexity of the milk plant would determine the exact engineer/electrician mix

4. Machine Import & Export

India has the potential to become one of the leading players in milk and milk product exports. Locational advantage: India is located amidst major milk deficit countries in Asia and Africa. Major importers of milk and milk products are Bangladesh, China, Hong Kong, Singapore, Thailand, Malaysia, Philippines, Japan, UAE, Oman and other gulf countries, all located close to India.

Low Cost of Production: Milk production is scale insensitive and labour intensive. Due to low labour cost, cost of production of milk is significantly lower in India.

Quality: Significant investment has to be made in milk procurement, equipment's, chilling and refrigeration facilities. Also, training has to be imparted to improve the quality to bring it up to international standards.

Productivity: To have an exportable surplus in the long-term and also to maintain cost competitiveness, it is imperative to improve productivity of Indian cattle.

There is a vast market for the export of traditional milk products such as ghee, paneer, shrikhand, rasgolas and other ethnic sweets to the large number of Indians scattered all over the world

5. Machine condition

In Aavin jmd takes care of the machine condition. Duties are the following lines.

Joint managing director:

1. Over all administrative Head of the entire JMD Unit consisting of four Metro Dairies, Marketing and Transport Unit.
2. Controlling and co-ordination activities among production, Marketing – Milk and Milk Products, quality control and Transportation.
3. Identifying Marketing area for each Dairy.
4. Any other guidance, if required by the Units