**Mbale Grain Miller Information Management System(GMIMS)**

This shall be a fully functional web based system for Mbale investment and grain millers co. Ltd. It will be developed to address the shortcomings of the available manual system which include:-

* Inventory control and management is done manually in books which makes it very hard for management to plan for the business.
* Production records are recorded manually which makes it hard to track material consumption and productivity in relation to sales and income.
* The factories don’t have a computerized record maintenance system which makes it hard to track breakdowns and maintenance work done which sometimes delays production and reduce revenue of the company.
* Most of the data entry, validation and processing are done manually , this can be erroneous at times.
* Historical data cannot be systematically viewed or structured at any time which makes decision making very difficult.
* Generating reports with the existing data is time consuming and very cumbersome .
* Management cannot access reports any time from any location which delays decision making leading to low productivity and sales.

Management of such a big company needs a computerized way of analyzing cost and productivity and a timely web-based access to company reports.

**OBJECTIVE AND THE SCOPE.**

The system will cover the following areas/modules and which will be the scope.

1. Stock management
2. Deliveries management
3. Production management
4. Sales and orders management
5. Income management
6. Expenditure management
7. Machine repair management
8. Staff management
9. Reports
10. Client/customer management
11. User management
12. Branch management
13. Store management
14. Procurement management
15. Notifications
16. Supplier management
17. Document Generation

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| Module | Functionality | cost |
| Stock Management | * The system will indicate the opening balance, stock in , stock out and closing balance for every item in the store eg maize, maize flour, maize bran ,buvera * It will also capture the number of bags per delivery and the classification of the bags as either stones or not |  |
| Delivery Management | * The system will record all information on the weight note form and automatically print out a weight note form * The system shall compute the offloading fees for every supply and the amount of money for the maize delivered |  |
| Production management | * The system will indicate the batch number for the maize being processed and the weight of maize in each batch. * The system will compute the productivity of every batch taken to the factory by calculating the percentage loss using the quantities of maize used and the quantities of maize flour, maize bran produced |  |
| Sales and order management | * The system will allow a customer to place an order and capture all information for an order * The system will produce an invoice if the mode of payment is credit or a receipt if the mode of payment is cash. |  |
| Income Management | * The system will capture all money received from customers and automatically produce receipts on submitting data. * The system shall list all incomes for specific periods ie daily, weekly, monthly etc |  |
| Expenditure Management | * The system will record all money paid out and automatically print out payment voucher on submitting data. * The system will list all expenditures for different periods ie daily, monthly etc. |  |
| Machine Repair Management | * The system will capture all faulty machines, technician who repaired it , reason for repair etc. * The system will list all machine repairments made at particular dates ie month ,year etc |  |
| Staff Management | * The system will capture all staff details and give them a unique number that can be used to track all the transactions carried out by the staff. * The system will list all staff members with their respective positions in the company. |  |
| Reports Management | * The system will be able to generate reports below. * Daily maize delivery report * Daily batches processed in factories * Daily order reports * Daily income reports * Daily expenditure reports. |  |
| Customer Management | * The system will capture customer details and be able to create an account for them on the system. * The system will enable customers to view their orders, transactions etc |  |
| User Management | * In this module system will be able to create users on the system with different roles ie manager, administrator, customer, supplier. * System will be able to log all transactions,orders,approvals made by a user |  |
| Branch management | * In this module system will be able to capture all details/ create a company branch on system. * Module will list all activities that happen at the branch. |  |
| Store Management | * System will be able to capture all details about purchased machinery ie computers, grain miller machines etc. * System will record and list at which branch is the machine taken incase its taken out for use |  |
| Notification | * System will be able to notify management by sending email notifications incase of any orders made |  |
| Procurement management | * System will be able to capture details about any material that needs to be procured and sends off email for approval to the administrator. |  |
| Supplier Management | * System will be able to capture details about a supplier and create an account for them. * Supplier will be able to view all transactions made, supplies made. |  |
| Document generation | * System will be able to generate receipts, weight notes, payment voucher etc. |  |

This web system can be developed in three different ways and listed below is the description and some of their pros and cons :-

1. **Customized System developed by HIGGS TECHNOLOGIES**

In this developers at HIGGS will develop a system that captures all user requirements using suitable technology for Mbale investment and grain millers co. ltd.

**Pros**:

* System can capture all user requirements.
* System can be able to capture all relations in regards to which branch did this transaction by which employee.
* System can be upgraded at any point in time.
* Modifications/ maintance can be easily done since HIGGS will have fully access to system code.
* Since it relates to manual system, it can be easily learnt by staff members.

**Cons:**

* It takes a lot of time to develop.
* Its expensive

1. **Microsoft Office 365**

In this developers at HIGGS will manipulate an already existing Microsoft packaged system using the packages like excel, Microsoft access to develop a system for Mbale investment and grain millers co. ltd.

**Pros:**

* Can be developed in a short period of time.

**Cons:**

* Very expensive in a long run.
* Can’t capture all user requirements.
* Hard to maintain since Microsoft has full authority about their software.
* Upgrades are done at any time so staff members must be able to adapt to the ever changing application(technology).

1. **Google Documents**

In this developers at HIGGS will manipulate an already existing system of packages like google sheets, access to develop a system for Mbale investment and grain millers co. ltd.

**Pros:**

* Can be developed in a short period of time.
* Not expensive.

**Cons:**

* Can’t capture all user requirements.
* Hard to maintain since google has full authority about their software.
* Upgrades are done at any time so staff members must be able to adapt to the ever changing application(technology).

**Other activities and requirements for the system to be developed and fully functional.**

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| **Activity** | **Period** |
| Hosting and Domain registration | 1 year |
| Training and maintenance | 6 months |

**Costs per option:**

Customized system by HIGGS : 7 million Uganda shillings if it’s to be completed after July

customized system by HIGGS : 8 million Uganda shillings if it’s to be completed before July.

Microsoft 365 : 8 US dollars per user per month for all the life time of the system and Set up fee for 3 million Uganda shilling for HIGGS .

Google Documents : 3 Million Uganda shillings set up fee only.