# Testing

Software testing is done to verify that the completed software package functions according to the expectation defined by the specifications. The core purpose for testing is to detect the software failures so that they are corrected and perfected . It also helps to identify any situations that can impact negatively the user under specific conditions. The scope of software testing involves the examination of code during execution and what sort of errors it displays.

**8.1**This is a software development process in which the smallest modules parts are individually and independently tested to check wheather they are properly working.

## Unit Testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test type | **Name of module** | **objective** | **result** | | **Percentage success rate** |
|  | Notification module | This module displays farm products posted by seller to the interested consumer | Enhance easy communication between the buyer and the seller | | 95% |
| Messaging module | This module notifies the the seller that there is unread message for him inform of a notification | Helps the seller to know how his/her products are fairing on on the web application | | 93.3% |
| Search module | This module displays all products available when searched | Makes it easy for buyer to look for products as quick as possible | | 92.9% |
|  | Register module | User is able to create his personal account in the web application | | User can access services of the web application like posting products,buying products and receiving notification | 94% |
|  | Login module | Allows user to have access into own account | User is able to view the current product in the market,post his/her products and receive notification | | 92.8% |
|  | Logout module | User is able to leave the page without any difficulty |  | | 91.4% |

**8.2 8.3User acceptance testing:**

**8.4**The sample size that the researcher had conducted were 100 people out of the targeted population of 120 all being local farmers and agricultural extension officer. The number of those who responded over the user acceptance test were 100 translating to 83.3% who fill the questionnaire and the other 26.7% did not responded to the questionnaire. This made us through the acceptance test to know how to gauge the application

**Local farmer selling platform**

This was investigated by asking the local farmer whether the online portal in theapplication module has meet its objectives,core functionality and its efficiency in monitoring of the local farm produce and enhancingselling of the same. The response from the local farmer were presented in a graph as shown below

The analysis of figure shows that 83.3% of the respondent said that the online module portal is good, 33.3% said the online module portal is average of the module while 8.3% of the respondent said the online module portal is bad.

**Overall user interface on the online portal**

The local farmer and the agricultural extension officer were then requested to comment on the entire system interface by filling in the questionnaire posted to them. The results were recorded by our developers and presented in a graph as shown below.

From the figure below, the results show that 94.4% of the local farmer and agriculture extension officer are satisfied with the user interface and feel that overall design of the system, is good 38.8% of the local farmer and agriculture extension said the online portal isaverage of the entire system interface design and5.5% of the local farmer and agriculture extension said the online portal is bad of the entire system design interfaces.

SUMMARY, RECOMMENDATIONS AND CONCLUSION.

# Introduction

This chapter gives a summary and conclusion of the whole research project.It gives recommendation on achieving the ultimate efficient performance monitoring system and proposes areas for further improvements that future researchers may undertake.

**9.1 Summary**

The main objective of the case study was to develop a web application system for monitoring farmers and agricultural extension officer that will replace the old method that was largely paper based which can get lost or wrongly filed making it so hard to monitor the local farmer. The online portal can also accommodate a larger number of people at ease than the paper work system. The portal will provide an interactive platform and instant results report. The specific objectives were to review the local farmer monitoring system with a view of specifying requirements.

This survey employed an experimental research design methodology which was used to obtain the distribution of respondents. To undertake the primary data collection, a questionnaire was designed as a tool to guide in gathering data which was delivered electronically through mail to the local farmers selected in the country.

The research had an excellent response rate of 88.7% as only four out of 25 delivered questionnaire was not returned. The background details of the research were that, the respondents were mostly farmers and agricultural extension officer.

# System Constraints

## 9.2Incompatibility between software

Online portal for monitoring the local farmer to the agricultural extension officer’ performance was developed as a web ,application system it has limited the users of the system. This means that users who had no laptops or android phones were not able to access and enjoy its functionalities and this reduced the reach of the system to specific users.

## Time

This refers to the actual time required to produce the desirable system. Which in this case would be the working prototype. Naturally, the amount of time required to produce the system will be directly related to the amount of requirements that are part of the scope.

# 9.3Conclusion

The study concludes that, with the development of a Portal to monitor the local farmer to the agricultural ’extension officer in Kenya to, better the agricultural produce will be greatly achieved as the parent can view, print and comments on the students’ academic results

While there has been a rampant poor agricultural product country wide, adoption of technology to cap this problem will help in adopting the automated way of monitoring the local farmer produce in Kenya. This suggest that the development of future solutions should only occur with a thorough understanding of the local farmer and the agricultural ’extension officer ability to use automated platforms to achieve better results, an expanded research project related to this topic should be considered.

# Recommendation

1. It is recommended that the internet be improved in country wide so that the local farmer and the agricultural ’extension officer in Kenya can easily access the internet whenever their produce are ready for sale to the customer
2. It is recommended that the internet should be ubiquitous so that the local farmer and, the agricultural ’extension officer can se how their produce online are fairing on. .
3. It is also recommended that computer studies be a compulsory subject in the Kenyan education system because, from the findings of the research, it is clear that many local farmers are computer literate.
4. It is also recommended that cyber café be developed for the public at each county level to improve the basic knowledge on how to use the internet.