**CHAPTER SIX**

**FINDINGS AND CONCLUSION**

**6.0 INTRODUCTION**

Findings and conclusion concerns itself with all the information gathered including facts and figures compiled to fulfil the objectives of a research or the development of a project as well as the illations drawn from the findings. Also included is the principal results of a research project as well as what the project suggested or indicated and the interpretations of the relevance of the findings of a project.

This final chapter will consist of findings and conclusion. This will include summary of various problems faced in the development of the system, achievements and challenges, recommendations as well as enhancements that can be made to the system in future.

**6.1 SUMMARY OF PROBLEMS**

Every research or project has challenges and this project is no exception. A number of problems were encountered during the development of the project. Mobile Money payment is a major payment platform in Africa and my goal was to integrate it into this project to easy payment for users. These major mobile money networks don’t provide an API for developers to interface other apps to use these services. There are third party companies that provide API but in only few programming languages like PHP and Java. I used the Python programming language to develop this project but all the effort to use this API’s was not successful because there was no API for the language. I made an effort to contact them but all of them said there was no API for the Python programming language. Because of this, I had to use PayPal as the only payment gateway to accept payments for both debit and credit cards.

The above were basically the problems encountered while working on this project.

**6.2 ACHIEVEMENTS AND CHALLENGES**

**6.2.1 ACHIEVEMENTS**

Through dedication, determination, effort, skill and hard work a number of successes and achievements were achieved these are stated below:

* Working alone has helped me to develop new skills like completing a project within a specific time. I used to do a lot of side projects but never finished any of them but this project has taught me to break-up projects into smaller pieces and accomplished them within a specific time.
* The development of the project required the use of a Python framework known as Django and also a database known as Postgresql which was my first time of using them but I was able to learn and use it for the development of the project. This have therefore helped me to enhance my knowledge and programming skills.
* Implementing the online shop in twenty different languages was the ultimate goal for this project. This is an achievement because the main motivations for undertaking this project included making online shopping easy for shoppers and shop owners. By means of internationalization and localization that problem is tackled.

**6.2.2 CHALLENGES**

Although the development of the project was a success, a number of challenges were encountered as well because every research or project has challenges and this project is no exception.

These include:

* One of the challenges faced was to complete the project on time. This is as a result of the fact that I had to make time for classes, mid-semester exams, final examinations and also for developing the project.
* Implementing the Mobile Money Payment system was the biggest challenge of this project. This was very difficult from the onset because there was no API’s for the Python programming language.

**6.3 RECOMMENDATIONS**

Recommendations involve additions, suggestions or courses of actions that could be added to the project in the future.

Some recommendations for the system include:

* The project is purely web-based hence we recommend that a mobile version could be developed to make it more convenient for users to use especially now that mobile devices are abundant.
* Another recommendation is that more payment options should be added especially for the mobile money section. We have options only for either debit or credit cards hence limiting those who can use the application.
* Adding multiple currencies for user to choose their currency of choice before they start shopping is one recommendation for future works.

**6.4 FUTURE WORK**

In future, I hope to delve more into the integration of Mobile Money payments. This is because the payment aspect of the system does not offer this to the user. The hope is to expand the choices available to the shoppers. Also, I hope to add multiple currency to make users choose the currency of their choice before they start shopping.

**6.5 CONCLUSION**

The Internet has become a major resource in modern business, thus electronic shopping has

gained significance not only from the entrepreneur’s but also from the customer’s point of

view. For the entrepreneur, electronic shopping generates new business opportunities and for

the customer, it makes comparative shopping possible.

As per a survey, most consumers of online stores are impulsive and usually make a decision to

stay on a site within the first few seconds. “Website design is like a shop interior. If the shop

looks poor or like hundreds of other shops the customer is most likely to skip to the other site.

Hence, the project has been designed to provide the user with easy navigation, retrieval of data

and necessary feedback as much as possible. In this project, the user is provided with a multi-lingual ecommerce web site that can be used to buy books online. To implement this as a web

application Django was used as the Technology. Django has several advantages such as

enhanced performance, scalability, built-in security and simplicity.

To build any web application using the Django framework, the programming language needed is Python. Python was the language used to build this application. For the client browser to connect to the Django framework, Web Server Interface Gateway (WSGI) was used as the Web Server.

Django uses Object-Relational Mapping (ORM) to interact with the database as it provides in-memory caching that eliminates the need to contact the database server frequently and helps protect against SQL injection attack. PostgreSQL was used as back-end database since it is one

of the most popular and open source databases, and it provides fast data access, easy installation and simplicity.

A good shopping cart design must be accompanied with user-friendly shopping cart application

logic. It should be convenient for the customer to view the contents of their cart and to be able

to remove or add items to their cart. The shopping cart application described in this project provides a number of features that are designed to make the customer more comfortable.

This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The design of the project which includes Data Model and Process Model illustrates how the database is built with different tables, how the data is accessed and processed from the tables.

The building of the project has given me a precise knowledge about how Django is used to develop a website, how it connects to the database to access the data and how the data and web pages are modified to provide the user with a shopping cart application.

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