CHAPTER 1

INTRODUCTION TO INTELLIGENT BANK MANAGEMENT SYSTEM

1.1 Introduction

Currently financial institutions in Malaysia especially the local bank institutions are facing a lot of challenges in terms of world economic crisis, vast competition, instability in growth and globalization which will be the greatest challenge to be met by the banking sectors.

The rapid intensification of globalization in recent years has significantly affected the structure and operations of financial institutions. Financial institutions worldwide are also undergoing the process of consolidation and mergers, driven primarily by the desire to increase global presence and to maximize economies of scale and the scope of activities. This process has also occurred in Malaysia (whereby there has been a reduction in the number of financial institutions from fifty-four to ten banks) and has provided an avenue for expansion of electronic banking and Internet banking. These changes will undoubtedly present increased challenges to the financial institutions in Malaysia. In particular, the globalization process brought about by the trend towards greater liberalization of domestic financial systems would further reduce the barriers for the domestic financial markets. This will further intensify competition in these markets over time.

The most important requirement that need to be gained by this sector in Malaysia is by having resourceful, dynamic and strategy making personnel in financial arenas. As per our concern as information technology is making a direct turn into the Malaysian Economy, most of the sectors are finding ways to make use of this information technology evolution.

In accordance to this research topic, the use of information technology would be the best solution for the local financial institutions to gear up for the challenges ahead. Banks need a system that could emulate the overall banking management system, which will be used to practice, create strategies and resources for the growth of the economic. The Intelligent Bank Management simulation for Malaysian Financial Institutions will be able to expose the bankers to the simulated based training system.

Intelligent Bank Management will be a bank management simulation system that puts the participants in charge of a commercial bank. The participants must develop strategies and make decisions that will determine the success or failure of the specified bank. The Intelligent Bank Management system is educational as it will teach about managing a bank and will introduce the concepts and terminologies of banking. It will give an exciting and competitive game to play.

1.2   Statement of Problem

As changes in the global financial industry continue to evolve and accelerate in the new millennium, the Malaysian financial system, particularly commercial and domestic banking institutions will face monetary pressure to become more efficient and competitive, technology driven and strategically more focused.

There are varieties of options for overcoming barriers to participation and it is important to understand the extent to which such options are available, utilized and cost effective. In this research problem, we have focused on our study on the evaluation of simulation based training system for Malaysian financial institutions. The research problems are as follows:

1.   Finding strategic ways for financial institutions to improve their performance as the performance gaps are widening between the local financial institutions and the international financial institutions.

2.   Most of the bank executives are not exposed to simulation based training system, which is heavily used in foreign countries.

3.   Some of the banks are still not leveraging on the advancements made in technology, in reengineering work processes and delivery modes, and do not offer the-state-of –the-art products and services that serve as complete financial solutions for varying types of consumers.

4.   The banks are not focusing on interactive based training system which could reduce time and cost.

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5. Some banks are not able to meet the increasingly more complex demands of the changing economy and the retention of their market share due to lack of strategic decision making and competitiveness

1.3   Research Objective

1. The first objective is to propose the idea of simulation based training system for the local banks, which could be used for education and training development purpose for the local banks.

2. The second objective is to develop a prototype of a web based simulation based training system, based on the idea proposed.

3. The third objective is to evaluate whether the user's participation in Intelligent Bank Management Simulation System plays an important role in managing the bank according to the strategy developed by the users. The users will be given an opportunity to work in a team and establish financial performance objectives, identify operating tactics and implement those tactics in an environment where individual performance is judged according to the collective financial performance of the group.

The system will demonstrate the manner in which individual financial decisions within banking firms interact with one another and the economic environment to determine overall financial performance, illustrating how different financial goals may be mutually exclusive. As a result, this research will focus on the users' participation in the system.

In order to give the learners greater opportunity to learn from experience within the simulation, it is also worthwhile to establish banking communities in the non-competitive mode. The learners will be able to develop financial management skills in banking by first playing against the simulation's macro economy rather than peer banks within this community.

As the participants gain experience with the game and develop divisions that are more sophisticated across respective team members, the time required for a given team to meet, formulate strategy and execute a decision input is reduced tremendously.

At the same time, the learners develop a basic understanding of the relationships between macro economic variables, competitive events and the financial performance of their simulated bank.

1.4   Research Scope

The research focuses on providing training for the users to upgrade their skills and expertise in the banking sector. The research focuses on:

1.   Providing financial information system based on the strategies created by the users participating in the research project and evaluates the results gathered from their participation.

2. A test will be conducted on user participation by utilizing the main components used in the configuration and management of the bank. The main components are:

1. Deposit Rates

2. Loan Rates

3. Expenses

4. Security purchase and sales

5. Marketing and Advertisement

6. Bank Report

1.5   Contributions of this Research

This research has three main contributions. Firstly, it contributes to the development of a training program prototype for financial institutions. It will provide hands-on training for the users and to evaluate the effectiveness of the system for the development of future training programs.

Secondly, the research provides a tool for the participants to practice the theories learned in books. If the theories perform well in the system, it will increase the confidence of the users in making strategic decision especially for the managers.

Thirdly this will help the organizations to evaluate the performance of employees in managing the bank. The other contributions are:

1. **Collaborative Work Concept through IBMS**

   This research provides an opportunity for the users to think and apply the concept of teamwork, which is very important in creating strategies, establish performance objectives and to identify the operating tactics. This will not only able to increase the user participation to use IBMS but also to apply the same concept when they are at work.

2. **Guideline in developing a simulation based training system**

   This research provides a guideline for other researchers to design a system based on Malaysian Financial Institutions as it provides all the data that need to be collected in order to implement a system. The interviews from the bank executives could be very helpful in understanding the Malaysian banking concepts.

3. **Reusing Artefacts of the Software Architecture Design**

   Software architecture, which was designed for the Web based Intelligent Bank Management System can be reused by the organizations with similar organizational, technological and product influencing factors in order to develop other similar application quickly and less expensively. The organizations do not need to design new software architecture each time a similar system is developed. In fact, slight changes can be made to the existing architecture to suit the new system to be developed.

4. **Enables the Implementation of the Intelligent Bank Management System**

The research has produced an architecture, which was designed based on the important influencing factors and development strategies. The research enables the implementation of the Web Based Intelligent Bank Management System (IBMS) that meets all the requirements in a given time and money.

5. **Reference Product for the Local Banking Sector**

The research has produced a product, which could be used as a reference product by the local banks in developing a system, which accommodate the learning of banking management. The concepts used to develop the Intelligent Bank Management System (IBMS) are in accordance to the Malaysian economic scale and could be used as a cross reference in forecasting the bank's performance.

1.6 Conclusion

Changing economic and business environment as well as rapid technological advances over the last decade have significant impact on the development of the financial system. Global forces at work and advances in technology have redefined the rules of the game and transformed the operational environment within which financial institutions operate. Indeed, the ability to reap the benefits arising from greater competition depends largely on the capability and capacity of financial institutions to adapt swiftly and to embrace the changes.

Similarly, the rapid pace of economic development and transformation that creates new demands as well as opportunities for businesses have called for a more effective and efficient employees in creating long term strategies for the banks. The key strategy for the bankers is to maximize the human capital in the knowledge economy. Information technology should be used in upgrading the human capital and the infrastructures involved.

The Intelligent Bank Management Simulation Training System will be the key strategy in developing the human capital and to upgrade the e-infrastructures. The objectives of developing the application relates indirectly as a tool to serve this dynamic economy efficiently and effectively, and to ensure that the local banks will have a leading role, more focused and innovative.

The problems faced by the current banking sector in Malaysia should not be the consequence of the next decade in predicting the strength of the local banks and the Malaysian economy. The local banks must adhere to the government's message in developing knowledge and skill based workers in the near future.