CHAPTER I

INTRODUCTION

1.1 Background

Along with the development, the advancement of information technology is growing very rapidly and it can be seen from the increasing human dependency on the information technology and is also crucial, thus the quality of information must always be improved to the next level to benefit and have a considerable impact on the development of any institution or an agency for critical decision making. The outposts that once did not feel the technology can now enjoy the online information service technology. Information technology appears as a result of increasingly widespread globalization of organizational life, the rigors of business competition, increasing short life cycle of goods and services offered, as well as the increasing demands of consumer appetite for products and services offered. In anticipation of this, companies are looking for new ground by utilizing the technology. Technology is expected to become a facilitator and interpreter. Initially, the information technology used is only limited to the processing of data. With the development of information technology, almost all activities of the organization today has been penetrated by the application of information technology and automation.

With the development of information technology today, individuals and organizations can work more quickly and accurately process data. That's why many companies, small and medium enterprises, private organizations, big multi-million companies and big organizations are beginning to switch from a manual system to a computerized system for various reasons and the goals to be achieved. A leader is required to think quickly and appropriately in decision-making so that the company can compete with other companies. With Computer based Information System can help individuals and organizations to solve their problem. However managing and keeping data up to date with information technology require commitment and skilled knowledge personals. Computer based information System are a very important asset

in many organizations or companies all over the world which effectively contribute to effective decision making for the betterment of those organizations.

Developing of Systems takes a long time of planning and analysis before it is literally developed. Development of an effective system is done through carefully following the regulations set by Major Software development organizations like Institute of Electrical and Electronic Engineers (IEEE) software.

Papua New Guinea is a developing country and most of its organizations and small enterprises still have their systems run manually, one of such business is the Taurama Fitness Centre which is located in the National Capital District (NCD) known as the capital city. Taurama Fitness Centre was founded in 2009, by Johnson Waldford. This gym is engaged in providing service to the public both men and women of all ages, from all walks of life. Taurama Fitness Centre provides fitness facilities and equipment to serve its every customer who comes to exercise or workout in the gym. Taurama Fitness Centre has roughly a total of 20 – 30 people who are not members who uses the facilities on a weekly basis, and about 20 are registered members. Every week the population of public using the gym has increased hence, Taurama Fitness Centre has an estimated total of about 40 people both members and non-members who use the gym. The Fitness Centre opens daily from 8am-9pm Mondays – Saturdays. The setbacks or problems encountered are mainly related to member registration procedures, daily attendance record, non-member daily payment record, and financial recording which are done manually. Thus, it is time consuming, and inefficient.

To manually handle the system daily is really a problem that is faced by Taurama Fitness Centre. Therefore it is in fact necessary to have a medium that is able to overcome the problems described above in which the system takes advantage of a computer-based application development.

In consideration of the above mention problems encountered, Taurama Fitness Center in fact really needs a gym management system to cater for the problems. A gym management system is an information system that manages data information

daily and helps record information and transaction from members and non-members. This proposed gym management system will be used by the cashier and accounts officer of Taurama Fitness Centre. From the above background, the author has raised this issue into a research thesis titled "GYM MANAGEMENT SYSTEM OF TAURAMA FITNESS CENTRE."

1.2 Problem Identification and Formulation

The identification and formulation of the problem is as follows:

1.2.1 Problem Identification

As from the background description, the author has identified several issues regarding the current system of Taurama Fitness Centre are as follows:

a. In terms of registration for new members, member registration procedures are sometimes slow due to handling data manually (handwritten) more new members being registered by only one staff on duty. Having to register by usage of registration forms is an expensive measure and not reliable having to use paper and have them stored in files which require more storage space.
b. It is time consuming and difficult when in the process of searching for membership data/records in terms of renewing membership, which is done manually by going through all the members' record files one by one.
c. It is less efficient when having to record daily non-members payment fees with only one duty staff available, this can be quite time and energy consuming
d. Recording of daily attendance of members and non-members is time consuming when being done manually by recording into the attendance log journal.
e. It is time consuming for the accounts officer to having to go through all the daily transaction activities when they are in the form of journal books, and getting to document into a monthly financial report errors can also arises.

1.2.2 Problem Formulation

Therefore based on the identified issues, the current problems of the system can be formulated as follow:

a. How to analyze the current gym management system of Taurama Fitness Centre, in areas of new members registration, non-member transactions, renewing monthly membership, recording daily attendance, and manage financial records, to point out the associated problems.
b. How to design and develop a computer-based gym management system for Taurama Fitness Centre to help solve problems faced with the current gym management system.
c. How to evaluate and test the proposed gym management system at Taurama Fitness Centre so that it meets the user requirements for new members registration, non-member transactions, renewing monthly membership, recording daily attendance, and manage financial records, in order to avoid system functional error
d. How to implement the proposed gym management system into a programming language that is integrated with a database so that it becomes a ready-made application package at Taurama Fitness Centre.

1.3 Research Objectives

The main purpose and objective for conducting this research are as follows:

1.3.1 Purpose

The main goal of this research is to design and develop an authentic user friendly computer-based gym management system for Taurama Fitness Centre, that can manage an accurate effective membership registration processes for new and existing members and non-members, keeping records of daily attendance, financial records, data storing of members details and monthly report generation .

1.3.2 Objectives

a. To analyze the current gym management system of Taurama Fitness Centre and point out major issues in areas of new members registration, non-member transactions, renewing monthly membership, recording daily attendance, and manage financial records

b. To design and develop a computer-based gym management system for Taurama Fitness Centre to help solve problems faced with the current gym management system.
c. To evaluate and test the proposed gym management system at Taurama Fitness Centre so that it meets the user requirements.
d. To implement the proposed gym management system into a programming language that is integrated with a database so that it becomes a ready-made application package at Taurama Fitness Centre.

1.4 Research Implications

The author expects this research to benefit both theoretically and practically by the following parties:

1.4.1 Practical Uses

From this research, the author hope that through the development of gym management system will be used by Taurama Fitness Centre to improve processing and managing of data more efficiently and accurately. In addition to that, this system may also be implanted in other similar companies in Papua New Guinea, who have similar issues that are faced by Taurama Fitness Centre.

1.4.2 Academic Usability

The academic uses of the research are:

1. Development of Computer Science

Given this research can be used as a reading material and reference journal to future students to develop insight knowledge in the field of Computer Science and other related topics.

2. For Other Researchers

The ideas generated from this research may also be implemented by other future researchers who wish to broaden their knowledge about information systems development.

1.5 Limitations of Research

Taking into consideration the time limit and ability of the researcher, the discussion of this research will be restricted on the following regarding the

development of the gym management system of Taurama Fitness Centre. The development of gym management system of Taurama Fitness Centre will contain:

1. Data processing of new members registration which includes renewing existing members, members and non-members transactions.
2. Recording daily attendance record of members and non-members
3. The output produced includes financial records of the payments of fees from every members, monthly transaction report, attendance report and relevant information of every registered member.
4. A login account access right for the gym management is only given to the parties employed at Taurama Fitness Centre that is the cashier or the employee on duty at the front desk and the accounts officer.

1.6 Location and Research Time

The location and time of the research are as follows:

1.6.1 Location of the Research

Location in which this research was taken:

Name: Taurama Fitness Centre

Address: P.O Box 480, PORT MORESBY, National Capital District, Papua New Guinea

Telephone: +675 325 4831 /341 8930

Email: tfitnesscentre@gmail.com

1.6.2 Research Time

The research was conducted at Indonesian Computer University (UNIKOM), Bandung, West Java, Indonesia. The duration of time allocated for this research was from February 1st 2016 through to the end of June 2016.

Table 1.1 Research Schedule

No	SCHEDULE	2016																			
		FEBRUARY				MARCH				APRIL				MAY				JUNE			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	INITIAL REQUIREMENTS																				
	a. Observing																				
	b. Interviewing																				
	c. Collecting Data																				
	d. Document Analysis																				
2	PROTOTYPING																				
	a. Design																				
	b. Prototyping (coding)																				
	c. Customers Evaluation																				
	d. Review & Updation																				
3	DEVELOPMENT																				
	Observe Users Satisfaction																				
4	TEST																				
	Black Box Testing																				
5	MAINTAIN																				

1.7 Research Outline

CHAPTER I: INTRODUCTION

This chapter proposes the research background, problem identification and formulation, research objectives, research usability and the limitations of the research.

CHAPTER II: LITERATURE REVIEW

This chapter contains the citing of theories and previous studies, related to the development of the gym management system.

CHAPTER III: RESEARCH METHODOLOGY

This chapter basically discusses the research methodology and procedures used in the development of the gym management system.

CHAPTER IV: SYSTEM ANALYSIS AND DESIGN

This chapter elaborates more on the analysis and design of the gym management system. It discusses the development of the proposed system, including processes, data interpretation, database design, coding and software testing.

CHAPTER V: CONCLUSION

In this chapter, conclusions are made according to the research and certain recommendations are made concerning the usability and maintenance of the developed system will be outlined.