

CHAPTER I

INTRODUCTION

1.1 Background

Knowledge management is the process of creating, sharing, managing, designing, maintaining information or an organization, bank, hospital, school, universities, and so on. Within knowledge management and organization can increase performance, reduce difficulties, and enhance employee's knowledge access to fast and clear data.

It helps an organization to experience growth driven by excellence. Despite the great value associated with this asset, only a few organizations can recognize and fewer can capitalize on it. Knowledge is much more than data and information. The various data & information pieces are transformed into knowledge.

The process of renovation into knowledge includes the intellect, expertise, understanding, experience, and judgment of the organization and the individuals handling it along with its effective application and utilization. Knowledge may be explicit or tacit. Explicit knowledge is stored in documents and other storage systems. It can be shared and expressed. Tacit knowledge, on the other hand, is one stored in the human minds and includes the intellect, experience, thoughts, and intuitions.

Knowledge management occupies an important place in the business world. Various practices are adopted by the businesses to manage this valuable asset for better decision making and ensuring the competitiveness, every process operation, and activity of the business such as planning organizing, controlling, coordinating, maintaining requires a sound knowledge (KM) base on a foundation effective.

Knowledge management efforts typically focus on organizational objectives such as improved performance, competitive advantage, innovation, the sharing of lessons learned, integration, and continuous improvement of the organization.

Knowledge management becomes the most economist strength it is different from the traditional key resource of the economist land, labor, and even capital, in knowledge management we need systematic work on the quality of knowledge and the productivity of knowledge. Discussion about the knowledge management system has been discussed in several journals, research papers, thesis, and usual articles. An organization needs to implement the KM in its forum namely banks, schools, hospitals, and other companies. KM brings a huge benefit to increasing employee's knowledge accurately, knowledge management enables employees to get knowledge from the knowledge management system sources.

KM is important for organizations that continually face downsizing or a high turnover percentage due to the nature of the industry. It is also important for all organizations since today's decision-maker faces the pressure to make better and faster decisions in an environment characterized by a high domain complexity and market volatility, in short, knowledge management is important for everybody.

To understand how the design and structure of management information system works, we should walk through three levels of management namely strategic management, management control (tactical management), and operational management (GABRIEL, 2012). Therefore, developers need to understand system analysis and database design.

We have reviewed several journals in which they developed a knowledge management system for school, here is the case study of them. *School knowledge management framework, and strategies the new perspective on teacher and professional development.*

This paper is concerned about how schools use knowledge management strategies to promote and enable teachers to learn to upgrade teacher professional growth, so that the teaching profession can advance with the times, thus improving the quality of education (17 November, Jingyuan Zhao, 2009).

Another paper which is titled, *Powerful public sector knowledge management*. This paper is drawn from a recent research study exploring the Toronto District School Board's efforts to initiate and improve early literacy instruction and achievement. More specifically, this paper highlights the District's focus on creating and enhancing opportunities for literacy-based knowledge sharing between teachers and leaders.

Student Appreciation Toward Online Learning Management System

Research in the field of information and communication technology in education shows a positive effect of e-learning application in learning activities. That is the result of Singh's research "A Study into the Effects of eLearning on Higher Education"(Handal, 2009: 50).

~~I have not been able~~ to meet the owner of A.S Private High School, because of the COVID-19 and consuming time, but we did have several WhatsApp calls and exchanging voice messages. A.S Private High School is located in Afghanistan, it founded on January 1, 2010, the system of the school is still manual, the information about the student, teacher, family, and other staffs saving in a notebook, this system is insecure at the same time very expensive compare to the student management system.

With the old system, the privacy is not safe, especially about the grades, the grades are one of the student's privacy, every student achieves their grades in front of the class by calling the student names, and everyone else can know what **your grade** was.

The scheduling system is too hard and it takes a lot of time to note the schedule, every teacher is responsible to write down the schedule on the board, and every student should note it, some students cannot note it, and ask **his/her** friend to help them.

It's difficult for teachers to share their knowledge as a student requires because one book cannot be distributed for many students.

Our main goal is to enhance the performance of A.S Private High School by implementing the student management system. This system has developed based on school requirements. With the student management system, A.S Private High School will have a fast and secure system, every student and teacher have their accounts, teachers and students can check the schedules, the teacher can add grades for students. The student management system handling by the management or (admin) of the school.

The student management system can handle all details about students, teachers, and staff, but in this thesis, we have been focused on the student side, like student registration, make online class, schedule, upload grades for each student. The system has been built in pure PHP computer language, the data

saved on MySQL database, we used cascade stylesheet (CSS3) which the latest version at the time.

“Design and Implementation of Student Management System (A.S Private High School)”

1.2 Identification of Problem

The problem identification derived from the background, the problems are listed as follows:

1. A.S Private High School still uses the manual system, the data about students, teachers, and staff are saving in a notebook.
2. Students have no privacy based on the grading system, everyone knows each other's grades.
3. Teachers cannot share their knowledge properly, because of the less facility.

1.3 Problem formulation

Problem formulation is derived from problem identification, the problem formulation.

1. How can we help the A.S Private High School to have a standard system and help students to increase their knowledge, and enabled students to save their privacy?
2. Security is one of the most important things in everyone's life, how to reduce the insecure system and improve security in our life?

3. How to enable the teachers to share their knowledge more properly?

1.4 Limitation of Study

This thesis focusing on the core problems, for that reason we have made this research limited which is as follows:

1. The scope of this study is conducted in A.S Private High School which is located in Afghanistan.
2. ~~We are~~ using Rapid Application Development to build the system
~~We are~~ using Unified Modeling Language (UML) to demonstrate our design, the components like Class Diagram, Use Case, Activity Diagram, and Sequence Diagram.
3. The system was developed based on pure PHP; ~~we have been~~ used cascade stylesheet 3 (CSS3) to design our system.
4. The database was created using MySQL.

1.5 Research Objectives

This objective is based on the problem formulation, A. S Private High School expect the student management system, to enhance the school performance.

To build the system first ~~we~~ need to have enough information about the school, and a solid design to create the system based on the design, to build a system ~~we~~ need a computer language does not matter what language to use,

what matters to meet what ~~we~~ required. To build the system ~~we~~ need pure PHP language to write the script, and MySQL to save the data.

1.6 Benefits of Research

The very first benefit of this thesis to understand more about the student management system, and how to replace the manual system with the computer system. The second benefit of this thesis we talked a lot about knowledge management and management information system, this thesis would enable ~~you~~ to understand knowledge management with more details.

~~1.7 Research Methodology~~

~~Research that has been done by researchers are as follows:~~

~~Course Management Systems (CMS) are a type of software application that enables instructors to deliver information to students, produce content materials, prepare assignments and tests, engaging discussions, and manage distance classes over the Internet (Amr Salah Hamed Ramadan Ali, 2013).~~

~~CMS has reached great popularity in universities around the world for their benefits in providing Web-based distance education with the flexibility and the convenience of the client-server communication on the Web.~~

~~Student Information Management System (SIMS) provides a simple interface for the maintenance of student information (Bergeron, 2003).~~

~~It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-~~

date information regarding a students' academic career are critically important in the university as well as colleges

Tons of research has been done based on the knowledge management, but we have found two relevant research which is the same as our method, the first research focuses on the Cursor management system, the second one focuses on the student information management system. We are focusing on student management system which is more focusing on the student side, every school or university stands on the student, and there are tons of information about every student, that is why every school needs to have a standard system to help the student to have a good performance.

1.8 System Development Methodology

We are using the Rapid Application Development method (RAD) to Design and build the student management system, Unified modeling language(UML) using to demonstrate the plan and design of our system, PHP to develop the entire application, MySQL to store the records about students, HTML is the structure of the website, CSS3 to design our application.

Requirement and Planning

In this phase users and analysts meet for identifying the goal and requirement of the application as well as identifying information, the requirements arisen from objectives.

~~1.9 RAD Design Workshop (Workshop Design RAD)~~

~~This phase is the designing phase improving the design and describe more about the structure of the system, this workshop programmer can build visual representations of design and patterns work to users.~~

~~Implementation~~

~~After the technical and non-technical aspects are approved and the system finished after that the system will be tested and then introduced to administration and after that will be applied.~~

1.9 Writing System

This Thesis is divided into some chapters. Those chapter are:

CHAPTER I: INTRODUCTION

This chapter contains background research, problem identification and problem statement, scope of work, objectives, thesis benefits, ~~research methodology~~ and systematic writing.

CHAPTER II: THEORETICAL FRAMEWORK

This chapter contains theory used in writing this research thesis, including fundamental of system development, information system, Rapid Application Development (RAD) methodology used in this research and a tools researcher used to develop the student management system to control application such as a tool to design the application and a tools to construct the application. In the last, a technique that will be used to test the application.

CHAPTER III: METHODOLOGY

This chapter will explain about the methodology used in the application. Including data collection and method of application development. It also explains the process for data collection and application development

CHAPTER IV: SYSTEM ANALYSIS AND DESIGN

This chapter contains result and discussion about this research. It describes processes in developing student management system at every stage starting from analyzing the current business process and propose a new system process.

After that, designing a propose system process using UML tools starting from use case, activity diagram, sequence diagram, class diagram, and database. Next, constructing the system based on the design that already created, pure PHP, MySQL, CSS3. In the last, testing each of functions within the system whether is it already running supposed to be or not.

CHAPTER V: CLOSING

The summary of the research is based on problem limitation and possibilities of future works in developing this application given in the last chapter.