

**K-SHARING SOLUTION FOR PUBLISHING ORGANISATION  
USING WEB PORTAL**

by

**MOHD HANIF BIN MAZLAN**

**FINAL YEAR RESEARCH PROJECT REPORT**

**Submitted to the Business Information System Programme  
in Partial Fulfillment of the Requirements  
for the Degree  
Bachelor of Computer Science (Hons)  
(Business Information System)**

**SEPTEMBER 2011**

**Universiti Teknologi PETRONAS  
Bandar Seri Iskandar  
31750 Tronoh  
Perak Darul Ridzuan**

## **CERTIFICATION OF APPROVAL**

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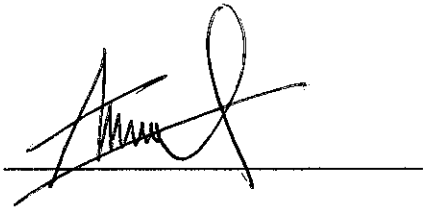
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**TRONOH, PERAK**

**September 2011**

## **CERTIFICATION OF ORIGINALITY**

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned above a solid horizontal line.

**Mohd Hanif Bin Mazlan**

## **ABSTRACT**

The essential business knowledge process in a publishing company generally comes from personnel that are involved in the publishing workflow. If the personnel or individual expert in the certain area of knowledge, the person tends to get high intention from upper management. Knowledge as part of personnel asset, make the personnel or individuals be inclined to share their knowledge. Because of that, there are no platforms or tools that had been created to allow knowledge sharing process in the related industry. Hence, this research is performed to recognize or discover and deal with knowledge audit. The knowledge audit is the all important first major phase or step of a knowledge management initiative, and is used to provide a sound investigation into the company or organisation's knowledge health. The knowledge audit provides an evidence-based evaluation of where the organisation needs to spotlight its knowledge sharing efforts. It can expose the organisation's knowledge sharing needs, strengths, weaknesses, opportunities, threats and risks. The portal was developed using content management system (CMS), Joomla as the editor and PHP language as the programming script.

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My mother:

- Ms. Zainon Binti Mamat

To my mother thank you so much for your understanding upon completing the Final Year Project course. Last but not least, my colleagues in UTP. All your guidance, support and assistance are very important in completing my study.

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# **CHAPTER 1**

## **INTRODUCTION**

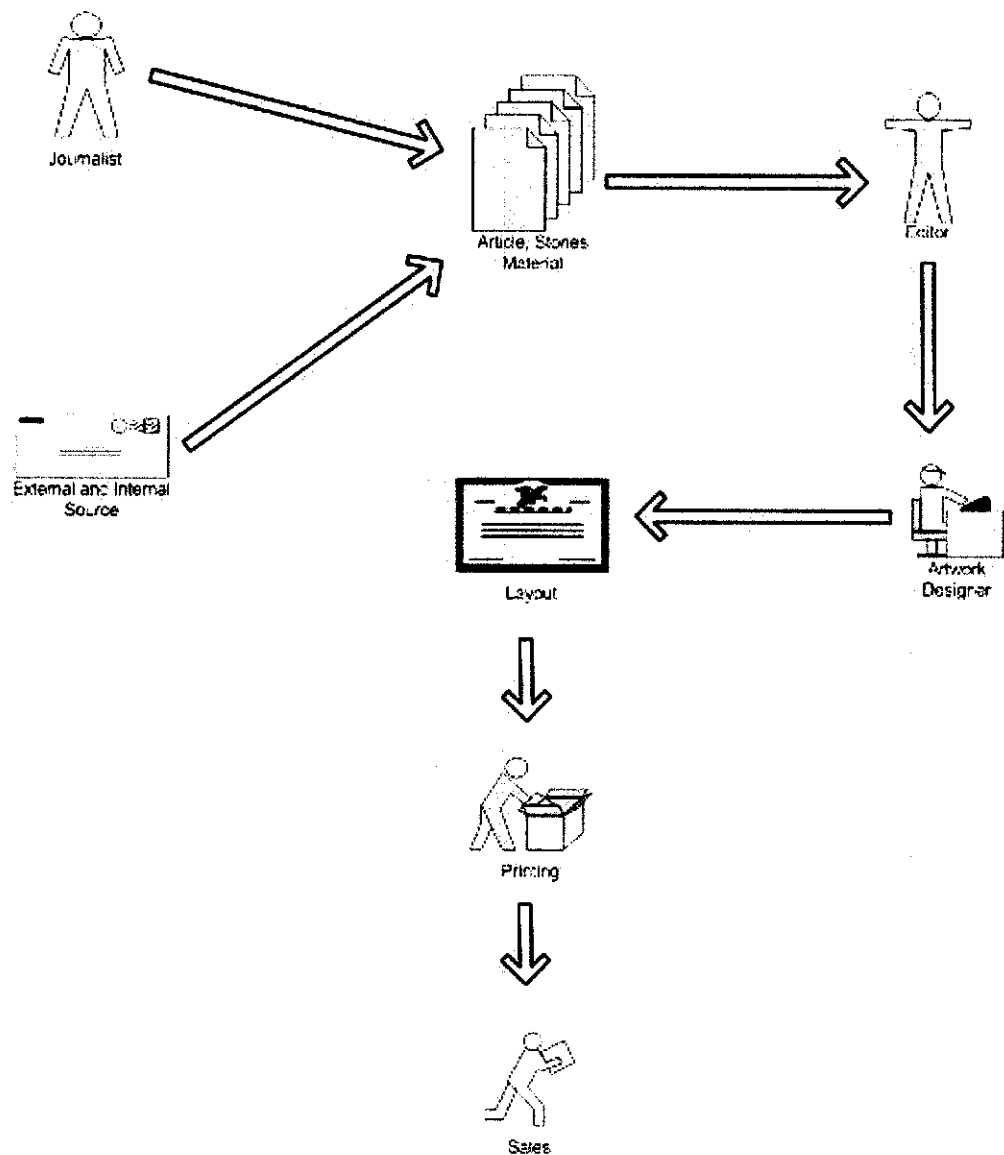
### **1.1 Background**

K-Sharing Solution for Publishing Organisation is a client server based portal that offers the journalist to gain the knowledge throughout knowledge by communicating and enhancing the knowledge by generating the new ideas. Managing the information into the specific directory or area can assist the journalists in order to find source and information needed. Most of publishing company have similar steps in order to publish their newspapers. Firstly, journalists need to find and obtain the material to be published. Journalists, who are responsible to find the stories, make a research and write the article for the publications. Once the manuscript has been written, the article is reviewed by the editor, to certify that content is precise. The responsibility of editor is to monitor at the usage of grammar and writing technique. The attractive headline will be the hit factors the story that going to be published. The graphic artist will be designed the cover and page of the newspaper by using the publishing software.

Once all of the content which are article, image and headline, and illustrations and any advertisements are collected to location, using desktop publishing software, the pages are printed out. Most newspapers have artwork staffs that perform this printing process, other publishers usually outsource their printing operation to other companies.

Meeting deadlines is part of the core conditions in this industry. For example newspapers are published on a very fixed schedule. Journalist, editor and artwork staffs who are involve in the publishing operation must be well prepared to meet deadlines. Every journalist need to submit minimum two articles per day to the editor. This can often make for a very chaotic and stressful environment, since the journalists do not have specific working hours since they work out of office.

Every employee in the publishing operation has their individual knowledge on what they are doing. Journalist, they have gain a lot of knowledge and experience through interview session and on the content formation. Editors, their knowledge in sentence structure, language and editing is very essential to an organisation. In fact the organisation has massive business knowledge which is imperceptible and elusive. Normally individual have authority to the business knowledge. If employees resign from the organization, their knowledge and skill moved out too. If these knowledge is not gathered and shared, huge amount of efficiency will be lost when employees resigned.



*FIGURE 1: Publishing Organisation Operation Process*

Journalists advanced in their work in the organisation with their past experience and valuable knowledge. Reading other reference resources, doing researches, making appointment for interviews and attending events is the core procedure that journalist have to go through to create the best article. Using the different approaches, journalists will get the stories. The good journalist with the most excellent approaching skills will get extra information.

In order to create a knowledge sharing environment in an organisation, all the type of knowledge need to be shared between employees. Knowledge is an assets for an organisation is very reliant to their expert might be lost if the employee quit from the company. As the result, the organisation lost the most precious assets and keeps looping the traditional knowledge compilation process every time.

## **1.2 Problem Statement**

Knowledge rarely shared in the organisation because it belongs to the personal. Every employee in the organisation expert in their own areas, however, they are very defensive to certain knowledge. Expert might have a better influence and good position in the company. There are no mechanisms or proper system works as to promote employee in the publishing organisation to switch the concept of personal knowledge to the new concept that the knowledge is owned and shared throughout the organizations.

If employees resign or quit form the organization, the knowledge embedded into them will be left too. Another reason publishing organisation need the content management system is to have a proper mechanism to journalist in order to submit their article each day to the editor. The major problems the organization will face when this occurs are lost of strategic practices approach which has been practice by expect employees. Secondly, for journalists in order to send their articles towards editor there are no proper platform or system on it. Thirdly, there is no forum for employees to share their idea and exchange best practice in journalism.

### **1.3 Research Questions:**

In order to be able to build a knowledge management solution portal, several researches need to be done to answer the following questions:

1. Who are the knowledge experts in organisation?
2. How to collaborate and connect the knowledge from employees?
3. What type of knowledge need to be gathering and collect from the community of practice?
4. How to connect employee to employee in the organisation?
5. How to connect employee to knowledge in the organisation?
6. What is the next planning to execute and enhance the use of portal in the organization?

### **1.4 Project Objectives**

There are several objectives on this project. First objective is to identify who are knowledge expert in the organisation by doing knowledge audit. Secondly, transfer the individual knowledge to the organisation asset in order to reduce organisation knowledge loss. Thirdly, enhance and support knowledge sharing mechanism in the organisation by using web portal. Finally, encourage the using web portal in the organisation as a medium of knowledge sharing mechanism.

### **1.5 The Project Scopes:**

1. Sinar Harian Perak will be used as the project's case study.
2. The project research will only focus the publishing operation process.
3. The development of the prototype system is to be based on a portal design and configuration.

## **1.6 Significance of the study**

The research is essential in order to determine the subsistence of knowledge sharing among the publishing employees from various departments in the organisation. Knowledge sharing is an important function in the development of a publishing company. It will assist to enhance the wide stage of capability in order to enhance a better knowledge gather and capture to increase the publishing operation processes.

The portal system developed can help to create a strategy to convert the knowledge environment individual knowledge, to an organisation asset. This environment will build strategic knowledge platform among employees and helps in cater problem of loss of practice, talent and knowledge in the organization. The knowledge sharing platform developed in order to initiates the knowledge operation solution to the organisation headed for managing their knowledge asset properties.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Overview**

In generally knowledge means, human faculty resulting from interpreted Information, understanding that germinates from combination of data, information, experience, and individual interpretation. According to Davenport and Prusak (1998) define knowledge as, a fluid mix of framed experience, contextual information, values and expert insight that provides a framework for evaluating and incorporating new experiences and information. Notice that there are two parts to their definition:

- First, there is content: a fluid mix of framed experience, contextual information, values and expert insight. This includes a number of things that we have within us, such as experiences, beliefs, values, how we feel, motivation, and information.
- The second part defines the function or purpose of knowledge that provides a framework for evaluating and incorporating new experiences and information.

The accepting of knowledge requires relationship in between of the knowledge and information. Information is a set of data that being arranged in meaningful patterns. By mixing it with expert experience and a trustworthy source it will develop into knowledge.

#### **2.2 Publishing Organisation**

Publishing organizations is an organisation that produces a reading material for example newspaper. Stakeholders of publishing organisation consist of board of directors, journalists, editors, photographers, graphic designers, chief editors, management staffs, distributors, sales and marketing.



## 2.3 Knowledge Management Definition

According to Denham Grey (1991) Knowledge is the full utilization of information and data, coupled with the potential of people's skills, competencies, ideas, intuitions, commitments and motivations. Knowledge is people, money, leverage, learning, flexibility, power, and competitive advantage. Knowledge is more relevant to sustained business than capital, labour or land. Nevertheless, it remains the most neglected asset. It is more than justified true belief and is essential for action, performance and adaptation. Knowledge provides the ability to respond to novel situations.

A holistic view considers knowledge to be present in ideas, judgments, talents, root causes, relationships, perspectives and concepts. Knowledge is stored in the individual brain or encoded in organizational processes, documents, products, services, facilities and systems.

Knowledge is action, focused innovation, pooled expertise, special relationships and alliances. Knowledge is value-added behaviour and activities. For knowledge to be of value it must be focused, current, tested and shared.

## 2.4 Sinar Harian Background



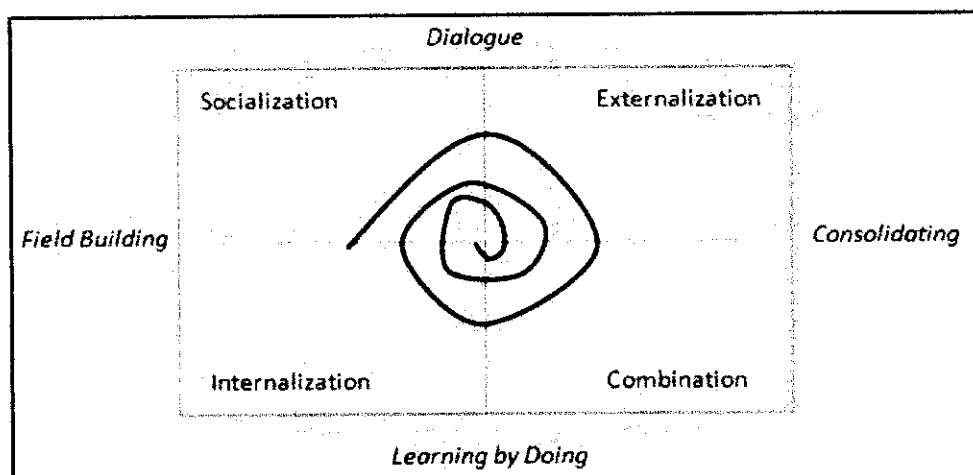
FIGURE 2: Sinar Harian Newspaper

Sinar Harian is a Malay language daily newspaper published in Shah Alam, Malaysia in a compact format. It first hit the newsstands on March 31, 2006 in the East Coast states of Kelantan and Terengganu before expanding its distribution to the state of Selangor and the federal territory of Kuala Lumpur in the West Coast in September 2007. Sinar Harian is noteworthy for its impartial and objective news content, compared with other Malay dailies, Sinar Harian channels views and opinions from all major sides of the Malaysian sociopolitical spectrum. Sinar Daily is published by Akhbar Cabaran Sdn Bhd, a company related to the Kumpulan Karangraf and Ultimate Group of Companies, a major publishing interest in Malaysia.

While providing the standard fare of national and international news, Sinar Harian also has a unique niche in providing regional and local news based on the regional editions published in the form of a pull-out section that takes up more than half of the printed pages in every issue. Current regional editions available are Kelantan edition, Terengganu edition, Pahang edition, Negeri Sembilan and Melaka edition, Utara ( Perlis, Kedah and Pulau Pinang) edition, Perak edition, Johor edition and Selangor and Kuala Lumpur edition.

## 2.5 Collaborative Knowledge Sharing

The Nonaka and Takeuchi KM model (1995) focuses on knowledge spirals that explain the transformation of tacit knowledge into explicit knowledge and then back again as the basis for individual, group, and organizational innovation and learning.



*FIGURE 3: Nonaka and Takeuchi Model*

### **First step: Socialization (tacit-to-tacit)**

Much knowledge, perhaps 80%, lies in people's brains. The aim for the knowledge worker is to find ways to collect this tacit knowledge. Socialization consists of sharing knowledge through social interactions.

People hold indeed know-hows, secrets, personal skills that will never be shared if none work on it. It is very important to try to gather this knowledge by socializing that is, using face-to-face communication or better, share experience directly at work through 2 roles: the tutor and the apprentice. It involves arriving at a mutual understanding through the sharing of mental models. That way, there will be little risk that the know-how of your company leaves at the same time of employees' retirement.

Socialization is a very effective means of knowledge creation, maybe one of the easiest but nevertheless the more limited. It is also very difficult and time-consuming to disseminate all knowledge using this mode only.

### **Second step: Externalization (tacit-to-explicit)**

The process of externalization (tacit-to-explicit) gives a visible form to tacit knowledge and converts it to explicit knowledge. It can be defined as "a quintessential knowledge creation process in that tacit knowledge becomes explicit, taking the shapes of metaphors, analogies, concepts, hypotheses, or models" (Nonaka and Takeuchi, 1995). In this mode, individuals are able to articulate the knowledge and know-how and, in some cases, the know-why and the care-why.

An intermediary is often needed to execute this process. For instance, we can consider a journalist who is the typical person able to interview knowledgeable individuals in order to extract, model, and synthesize in a different way (format, length) and thereby increase its scope (a larger audience can understand and apply this content now).

### **Third step: Combination (explicit-to-explicit)**

Combination is the process of recombining discrete pieces of explicit knowledge into a new form. No new knowledge is created at this step. It is rather to improve what we have gathered so far, to make synthesis or a review report, a brief analysis or a new database. The content has been basically organized logically to get more sense, consolidated.

### **Fourth step: Internalization (explicit-to-tacit)**

The last conversion process, internalization, occurs through diffusing and embedding newly acquired and consolidated knowledge. In some way, internalization is strongly linked to "learning by doing".

Internalization converts or integrates shared and/or individual experiences and knowledge into individual mental models. Once internalized, new knowledge is then used by employees who broaden it, extend it, and reframe it within their own existing tacit knowledge. The habits have been changed.

## **2.6 Portal**

A web portal is a term, often used interchangeably with gateway, for a World Wide Web site whose purpose is to be a major starting point for users when they connect to the Web. The portal consists of character like customizable home page, to give guidance to user through the web, email, personalized news and sports headlines options, a variety of chat rooms and any other applications.

## **2.7 Knowledge Sharing**

Knowledge sharing philosophy is essential and being implemented. There are several reasons why it is essential to be implemented in the publishing organisation:

1. Empowering knowledge of employees
2. Reducing time cycle for organisation produce a new product
3. Improving customer relationship management
4. Creating creative and innovative product

In order publishing company needs to implement knowledge sharing, there is several of sharing solution:

1. Access to publication material throughout the organisation – portal/search/document management.
2. A resolution for information excess – profiling/ education /personalisation.
3. Effective work situation for collaborative operation – collaborative work mechanism.
4. Corporate new of communication in a relevant manner – portal/email/intranet
5. Persistent communications –personalisation.
6. Real-time community of practices – portal/collaborative work tools.
7. Sharing with external parties – portals

## 2.8 Existing Knowledge Management Portal



FIGURE 4: MagazineLaunch.com

The MagazineLaunch.com is a portal site connecting the vendors with consultants with the entrepreneurs and business people who are involve in the magazines industry. MagazineLaunch.com portal is considered as a knowledge sharing portal, though this portal is for a publisher to get information regarding on publishing industry and suggestion on how to build up the publishing business. MagazineLaunch.com portal is design not for publishing employees to share the knowledge in order to establish knowledge sharing environment in the publishing organisation.

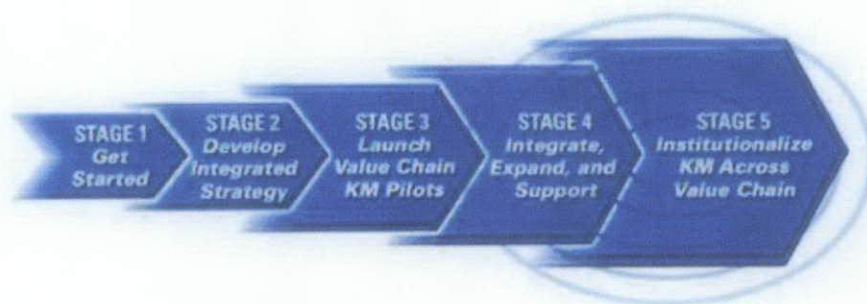
## CHAPTER 3

### METHODOLOGY

#### 3.1 Overview

In order to improve knowledge sharing environment among employees in publishing organisation, a strategic method need to be create. The method should be able to provide knowledge n more efficient manner. The platform of method can be form of portal in order to share the knowledge. The medium of platform can provide information and knowledge among individuals in the organisation. In order to enhance the strategic knowledge sharing strategic, American Productivity & Quality Centre (APQC) roadmap is used for methodology.

#### 3.2 American Productivity & Quality Centre (APQC) roamad to knowledge sharing



*FIGURE 5: APQC Roadmap*

APQC's approach to knowledge sharing implementation helps to understand the issues, tactics, and tools necessary for a successful knowledge sharing environment. APQC roadmap helps to pilot knowledge sharing the based on knowledge requirement and implementation of knowledge sharing procedure.

### **3.2.1 Get started**

The purpose of get started phase is to identify the problem statements and solutions.

In the get started phase the process involve are:

1. Create a project vision
2. Ignite a project spark
3. Find the success stories

### **3.2.2 Develop strategy**

Develop strategy phase is to create a knowledge sharing approach that fits into publishing organisation operation. From there the operation opportunities being initialized as pilot initiatives. The major knowledge initiatives will be transformed into a portal system that supports the knowledge sharing initiatives in the publishing organisation.

### **3.2.3 Design and launch KM initiatives**

At design and launch knowledge management initiatives stage, in order to start knowledge sharing strategy, portal prototype will be design. The prototype process involve are analysis and design, implementation and testing. The development of the prototype portal characteristic includes the method of design, the development which includes suitable equipment, strategic techniques and types of software.

### **3.2.4 Expand and support**

Expand and support phase is conducted in order to ensure accepted level of portal system. Tests on prototype will be conducted and the feedback from the certain respondents will help to enhance the system to a certain accepted level. The prototype will be tested again and comment from the community members are needed enhance the prototype that is now available on the web server after the prototype system design process have been carried out. From feedbacks, comments and proposal given by respondents, the prototype system will be updated and upgraded accordingly.



### **3.2.5 Institutionalize KM**

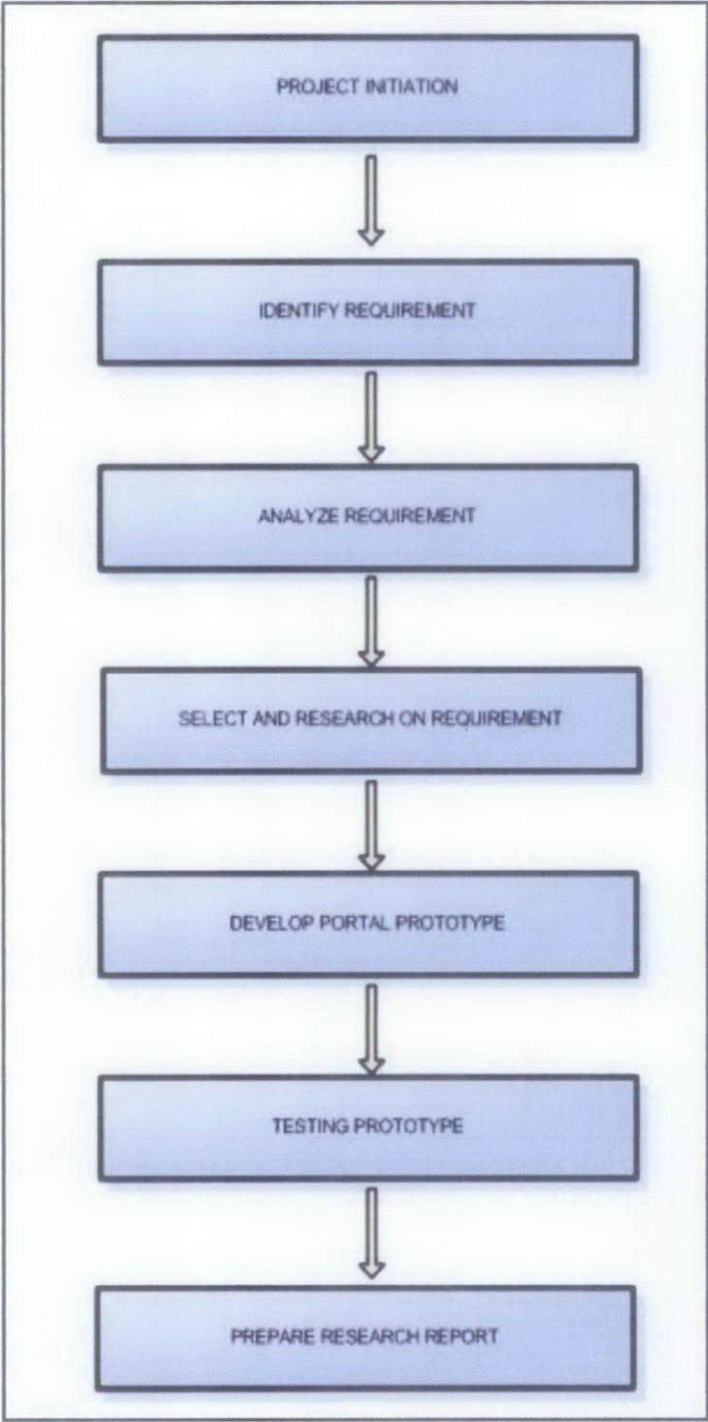
In institutionalize knowledge management stage, the operation strategies were develops to motivate and support the publishing employees to utilize the portal. By implementing this knowledge sharing portal, there are several resources need to be recognized. Hardware and software are the basic resource for knowledge sharing development. Minimum prerequisite software applications required in developing the knowledge sharing prototype system are:

1. Microsoft Office 2007
2. Apache server
3. Microsoft Visio 2003 Professional
4. Content management system ( eg; Joomla)

### **3.3 Operational Framework**

The research framework is divided into:

1. Research study in the initiation phase of conducting this research.
2. Initial study will be done at Sinar Harian (Perak) in order to get information that will help in this research. Interviews with correspondent persons will be held.
3. Based on analysis, selection on requirement has been done. The particular knowledge sharing research will be used on system development.
4. Based on the preliminary study that would best fit with the study, the system design and prototype improvement methodology will be used.
5. In order to acquire necessary feedbacks, the prototype system will be tested.
6. Documentation of the system and the user manual in the Report writing in the final phase.



*FIGURE 6: Operational Framework*

3.4 Gantt Chart FYP 1

ID	Task	Week												
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Title selection/Proposal													
2	Extended Proposal/Literature Review													
3	Submission of Extended Proposal						X							
4	Preparation for KS Portal													
5	Distributing the questionnaire forms to Sinar Harian													
6	Review feedback from questionnaire													
7	KS Portal: Proposal Defense and Progress Evaluation								X					
8	System and Software Analysis													
9	Interim Report Preparation													
10	Submission of Interim Report													
11	Technical Report										X			
12	Final Submission													X

Legend:

	Progress
X	Milestone

3.5 Gantt Chart FYP 2

ID	Task	Week												
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Design Phase													
2	Design Strategy													
3	Design User Interface													
4	Development and Impementation Phase													
5	Progress Report													
6	System Construction													
7	System Integration													
8	Pre-Sedex													
9	Dissertation													
10	VIVA													
11	Final Dissertation and Technical report													



### 3.6 Gantt Chart FYP 1 & FYP 2

Activities	September				October				November				December				January	
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
Proposal Topic																		
Approval of Topic																		
Extended Proposal																		
Visit to Sinar Harian Perak																		
Defense Proposal & Progress Evaluation																		
Interim Report																		
Study Week																		
Final Exam																		
Semester Break																		
Visit to Sinar Harian Perak																		
Start of September '11 Semester																		
System development (Planning)																		
Progress report 1																		



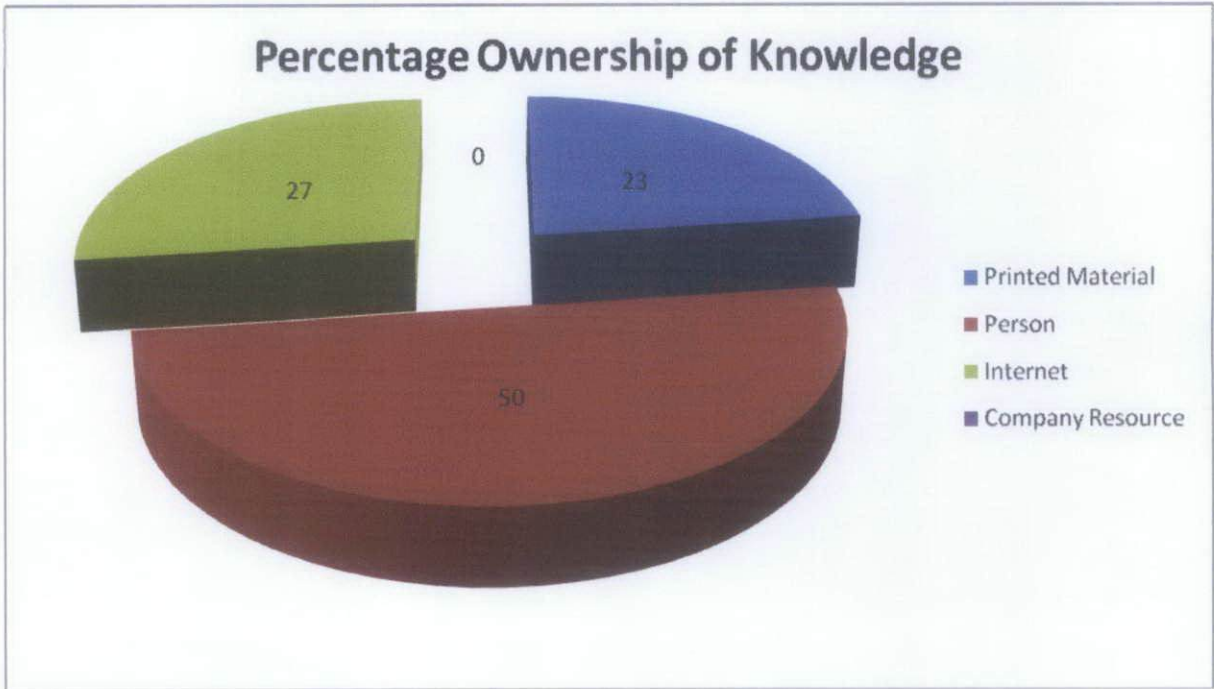
**CHAPTER 4**  
**ANALYSIS AND DISSCUSSION**

**4.1 Introduction**

Analysis and Design chapter will have further discussion regarding developing the model of portal for publishing organisation. The development of knowledge sharing portal consists of stage to select and do the research in case study organization Sinar Harian Perak. Then, the phase will move to develop the portal prototype. Modules and components of the portal architecture will be design for user use. Portal will be developing based on portal requirement analysis.

**4.2 Knowledge Audit through Questionnaire Sessions**

The knowledge audit trough questionnaire session objective is to collect and gather information around the publishing organisation in order to understand about the employees' behaviour practice in the whole knowledge management environment.



*Figure 7 : Percentage on Questionnaire Result Analysis*



The objectives of questionnaire are:

1. To summarize publishing organization employee background in Sinar Harian Perak.
2. To identify experts in the publishing organisation.
3. To analyse requirement of business process structure in the publishing organization.
4. To identify the company resource of knowledge.

To review of the questionnaire results, out of 20 respondents it shows that the publishing organization employees have a go through the non formal communication, for example story telling and verbal communication in order to transfer the knowledge around the employees throughout the organisation.

The knowledge result analysis shows none of employees refer to the company material as their resources. One of the reasons is because there are no formal storage mechanisms for company material resources. Difficulties to get resources and information will link to employees' interest to get the information. The result shows that recent knowledge ownership in the organization is belongs to the personal, followed by internet and printed materials.

There are few hypotheses can be making from the result of survey:

- There are lots of experts which are form different background and have many experiences that will be as resource for publishing organization.
- There are expertise and resource which can be share among employees in order to improve communication skills.
- The knowledge sharing environment through informal discussion and communication already exist among employees in the publishing organisation.



### **4.3 Portal Prototype Requirements**

Knowledge sharing portal development is based on knowledge audit analysis on user requirement. The design of the knowledge sharing portal is to manage and collect the data and information which embedded on staffs which relate directly to understanding, skills and knowledge. Knowledge sharing portal is as a platform for organization for them to share and transfer their knowledge, experience and expertise.

The characteristic of user friendly portal is as below:

- Registered users
- Latest News
- Latest articles
- Forum
- Search material engine
- Database of articles
- Assignments articles files for members
- Private message
- Who's online

#### **4.3.1 Knowledge Sharing User Category**

The knowledge sharing portal has different level of user's involvements of portal access depending on their situation in the organisation.

There are three categories of the users:

1. Organisation users. The organisation members can contribute to any part in the portal.
2. Outsider visitor. The outsider user can only view certain content in the portal.
3. Administrator. Have full administrative right and access to all portal features and forum.

The knowledge sharing system have fundamental user requirement as follows:

- User has authority to write and submit their comments.
- Registered users can be review data from database
- Forum and discussion allows registered users to write and reply posting.
- Users are able to deliver articles towards other users.
- The authorization user can review other members' articles.
- The authorization user can edit any part or documents and assignments.
- Users can share and transfer any idea or knowledge among users.
- Authorization user able to send assignment notification towards other users.
- Users are able to search the information and get know about knowledge capabilities.
- Authentication required password.
- Database store and keep every type or category of information and knowledge.

4.3.2 Use Case Diagram

Register member, login account, administration, manage forum, new and download files, assign article, manage articles, update forum, send download files, send private message, update correspondent data, update assignment manage member database and log out are part of system design for main use case recognition.

This use case diagram responsible to show the system responds towards object in organization environment and system behaviour.

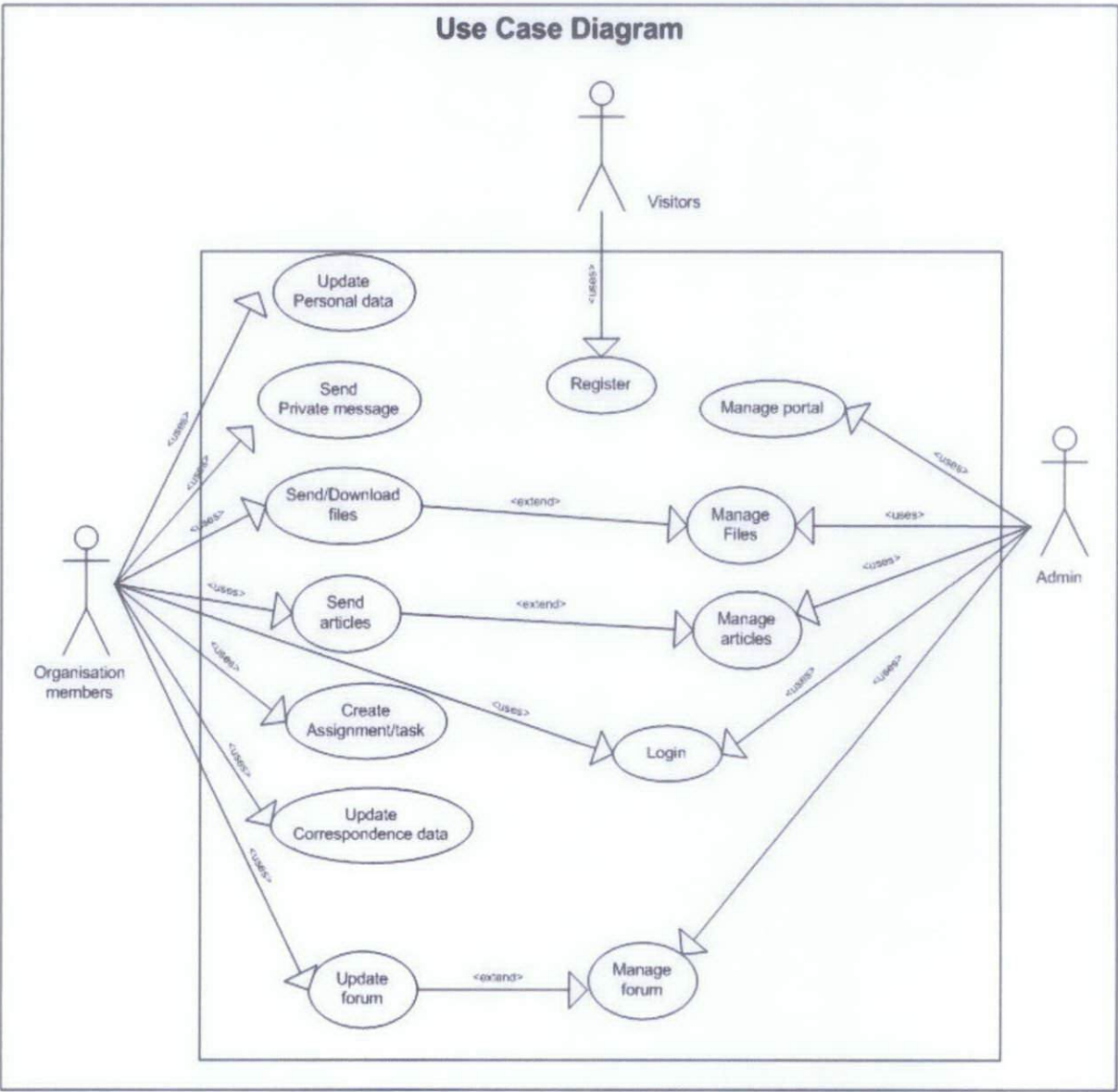
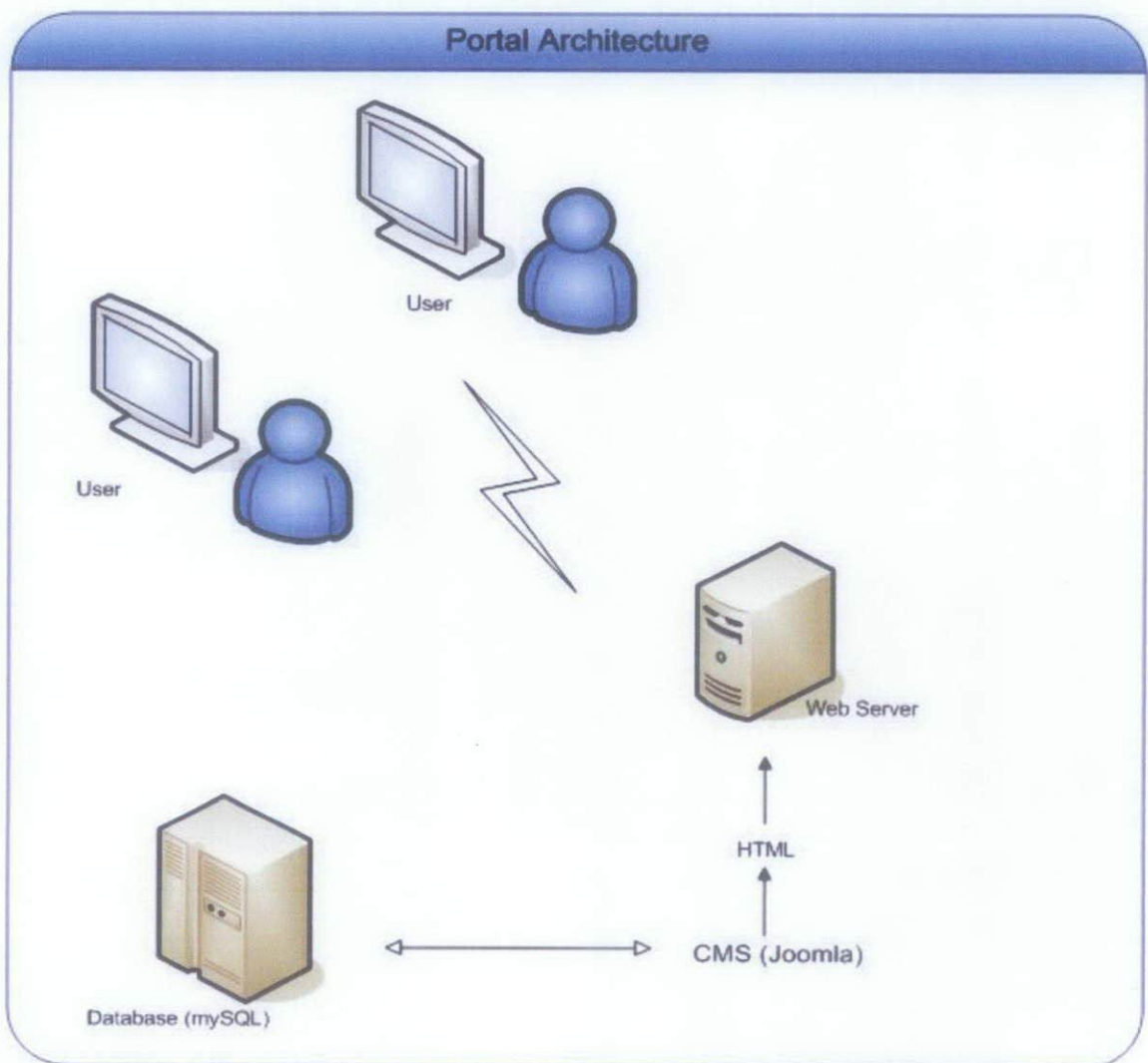


Figure 8 : Knowledge Sharing Portal Use Case Diagram

### 4.3.3 Portal Architecture

A knowledge sharing system is projected in this research in order to enhance the flow of transfer of information in the publishing organisation. In the publishing organization, their journalist are work out of office there are make knowledge sharing portal is essential as communication tools among the employees. Fundamentally portal consist several components which include user, user interface, user searching and database management. As functional portal required a database for data and information storage and html page for user interface view.



*Figure 9 : Knowledge Sharing Portal Architecture*

#### **4.3.4 Content Management System (Joomla)**

Joomla is example of content management system is used for the control and editing of content. Joomla includes electronic files, images and video based media, audio files, electronic documents and web text. The main concept behind a Joomla is to make files available for editing front-end over the Internet. Joomla is written in PHP, uses object-oriented programming (OOP) techniques and software design patterns, stores data in a MySQL database, and includes features such as page caching, RSS feeds, news flashes, polls, search, and support for language internationalization.

Content management system as example Joomla are mainly used to control and publish text based documents likes articles, text documents and information. The futures of Joomla are:

- Create and import documents, videos and images.
- Recognize main users and their roles.
- Have ability to identify user rights across different types and categories of content.
- Define management and system workflows, definitions, tasks and possibly even tied in with event messaging so that managers of the content are notified of changes to specific content.
- Have ability to record, track and manage many versions of the same content or files.
- Have ability to publish content to a centralised content archive
- Allow for the formatting of certain text within the documents for example fonts, colours and layout styles.

Joomla can be installed manually from source code on a running system such as a web server which supports PHP applications, from a package management system or using a Joomla appliance which comprises the application and its dependencies as a ready-to-use system.

#### **4.3.5 Database**

MySQL is a common relational database management system that can simply connect to any computer system. MySQL database is a well structured assortment of data and information and vast simple link such as images in the database storage. For this function, it contain huge amount of data and information in the corporate network. To perform operations such as processing, accessing adding and deleting data stored in a computer database, at least a simple database management system such as MySQL.



#### 4.4 K-Sharing Solution for Publishing Organisation using web portal modules

Modules	Description
Registration form	The new user should register in order to get access to the knowledge sharing portal. The new user can fill up the information in the user registration form then administrator will approve the registration application. In order hand, administrator can create username and password for new user users. The user can view and use the functions in the portal after the registration.
Login form	Show a form to log in account for the knowledge sharing portal users.
Articles	This module allow user to create, edit, view and delete articles in various categories.
Forum	This module allow users to have proper discussion space in order to share disseminate knowledge among users and create a ideal interaction among them.
Archive	This module shows a list of achieved articles, documents, pictures and news.
Latest news	Shows link list of most recently published content items.
Who's online	Shows number of viewers currently on the portal.
Private message	Allow user to send private message to others user in the portal.

*Table 1 : K-Sharing Solution for Publishing Organisation modules*

## 4.5 Prototype Design

### 4.5.1 Home

Home module allow user to come back to portal main page form any module. The home page consist of site administrator, success stories, best practice, ask an expert, login, login, who's online and calendar.



Figure 10 : Home page interface



## 4.5.2 User Registration

User registration module is the implementation of new registration use case. Administrator will then allow to proceed the registration upon agree of the terms. New user should have to fill up the form and submit the database.

Registration

Required field

Field visible on your profile

Field not visible on profile

Information: Point mouse to icon

Name:

Email:

Username:

Password:

Verify Password:

Company:

City:

State:

Zip Code:

Country:

Address:

Phone #:

Fax #:

REGISTER

Required field

Field visible on your profile

Field not visible on profile

Information: Point mouse to icon

Figure 11 : User Registration interface

Page | 31

### 4.5.3 Login

The login function is for user to log in. By login, their profile can be brought together to make transaction or involve in the forum. It also can distinguish between journalist, editors, expert and administrator.

The screenshot displays a web application interface with several sections. At the top, there are three main headers: "Success Stories" with a hand typing on a keyboard, "Best Practice" with the words "Best Practice" in colorful letters, and "Ask an Expert" with a speech bubble containing a question mark. Below these, the "Who's Online" section states "We have one guest and no members online". The "Login" section, highlighted with a yellow box, contains fields for "Username" and "Password", a "Remember me" checkbox, a "LOGIN" button, a "Forgot login?" link, and a "Register" link. To the right of the login section is the "Changing Culture" section with a paragraph of text about culture change. Below that is the "Knowledge Sharing" section with a brief description. On the far right, the "Meeting" section lists details for a meeting on Tuesday, December 6, 2011, at 12:49:20 AM, hosted by Hanif, with a duration of 60 minutes and a status of "Open for Registration". At the bottom right is the "Knowledge" section with an "Agenda" link.

Figure 12: Login interface

User will enter their username and password and then click on Login button. The login button will submit the username and password enter by user to the database in the Wamp server. If the username and password match, user can login and homepage will appear. If the password or username did not match, alert message will appear that user has entered wrong username or password.

#### 4.5.4 Success stories

Success stories page is for users sharing the success stories among them in the portal. There will be several categories of success stories which can be viewed by users to get the knowledge regarding on job categories.



Title	Author	Hits
Success Stories 1	Written by Super User	1
Success Stories 2	Written by Super User	0

Figure 13 : Success stories interface

#### 4.5.5 Best practice

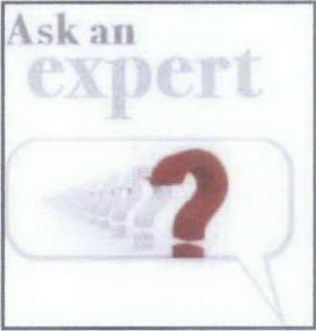
Best practice is for users learn and absorb best practice applied in job. Best practice is similar to expert locator system which provides standard procedure in the job task. While review the best practice procedure, user can increase efficiency and effectiveness in their workplace.



Title	Author	Hits
Best Practice	Written by Super User	0

Figure 14: Best practice interface

#### 4.5.6 Ask an Expert



Ask an expert

Subject \*

Message \*

Send copy to yourself ☐

**SEND EMAIL**

*Figure 15: Ask an Expert interface*

Ask an Expert page is for user asks questions related with job skills or task to experts. There will be several experts in the list which user can choose to ask the question. Expert is person who has expertise on knowledge or champion in the workplace. Ask an Expert support success stories and best practise modules.



### 4.5.7 Forum

Forum module involve in manage of knowledge and information among users in the knowledge portal. Through forum discussion, users will share, transform and exchange the knowledge from tacit to explicit knowledge. Administrator will categorize the knowledge based on information related to the issues or category. All users in knowledge portal able to involve either send comments, feedback or ask question based on the topic in the forum.

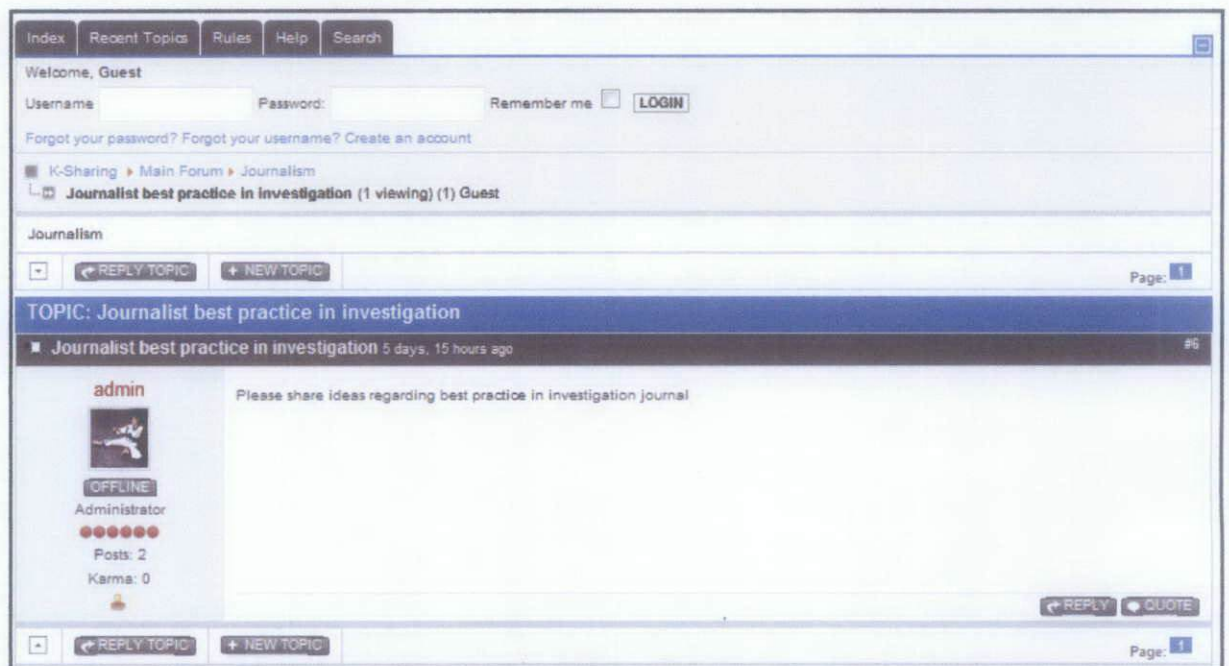


Figure 16: Forum interface

4.5.8 Online Meeting

Online meeting is a method of conference venue. In the publishing organisation, journalist does not have specific workstation and office. By online meeting, journalist or user can assess the meeting from anywhere and can do the meeting at any time. In order to access online meeting participants will get password or links through email notification before online meeting begin. Through online meeting, users can draw a picture, upload images and files.

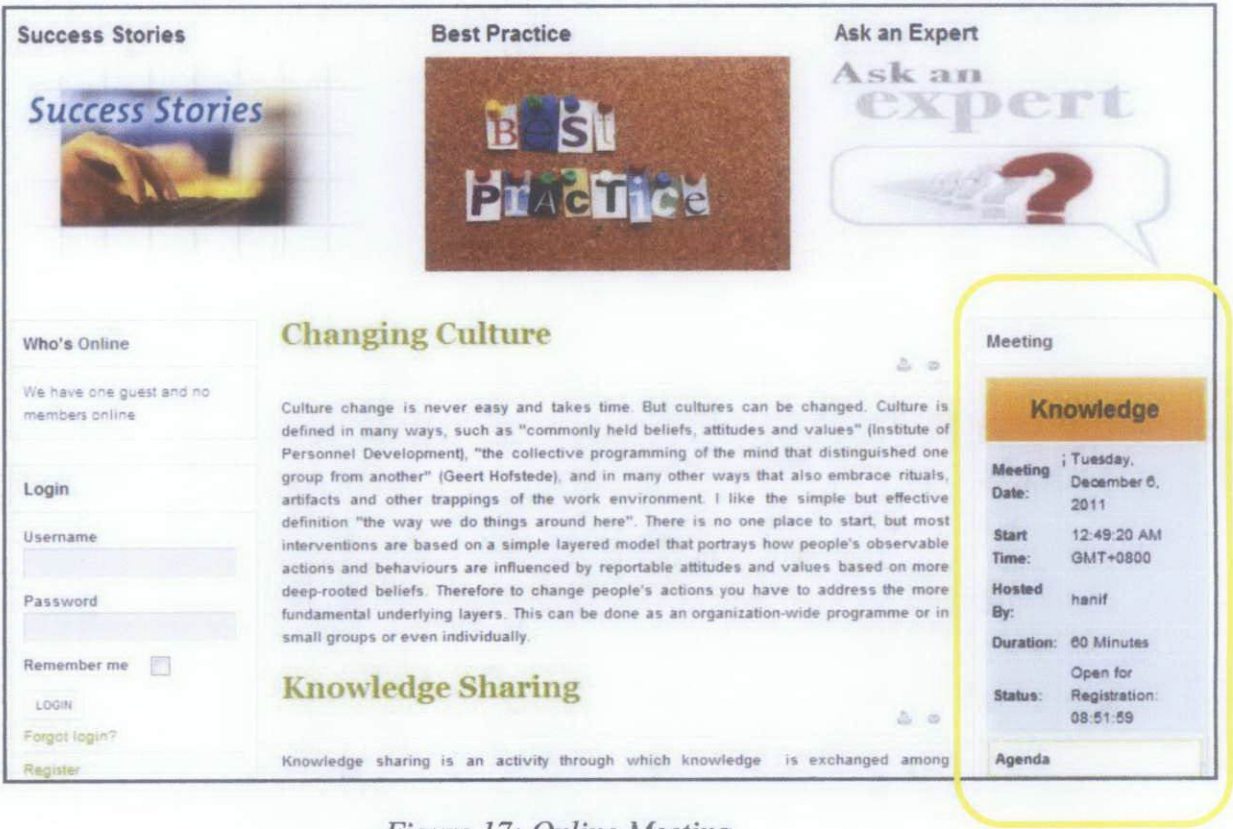


Figure 17: Online Meeting

#### 4.5.9 Attractive Learning

Attractive learning is platform or mechanism for user to switch traditional learning towards new of learning approach by using video. In the attractive learning, user can learn about two subjects which are journalism or knowledge sharing areas. Administrator will upload video upon registered users' request.



*Figure 18: Attractive Learning*

#### 4.6 Email Notification

The email notification is an application that alerts the users when they have messages in web portal. Messages in the web portal includes new articles had created, updates in forum, request from one user to another user, online meeting updates and updates in modules such as success story, best practice and ask an expert. Email will notify by show their subject, senders of the notification.



Figure 19: Email notification

#### 4.7 Article Manager

Article manager allow editor or administrator to create new article and manage the submit article by journalists in knowledge sharing portal. The new article will be categorised into specific categories in the portal. The article is compress into folder and stored in the database.

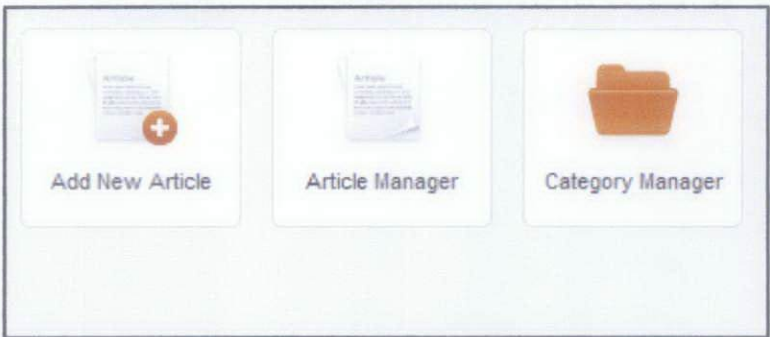


Figure 20: Article Manager





#### 4.8 Prototype Testing Phase

Throughout the execution project there are some comments and feedbacks occur which based on current output available, the system prototype had already been commented by various perspectives below:

- I. My supervisor: Assoc. Prof. Dr Dhanapal Durai Dominic
- II. Journalists of Sinar Harian Perak

These are few areas that been focused regarding on user testing:

- Prototype user friendly
- Prototype user usefulness
- Prototype usability
- Prototype overall performance

These are few comments that been received from user testing:

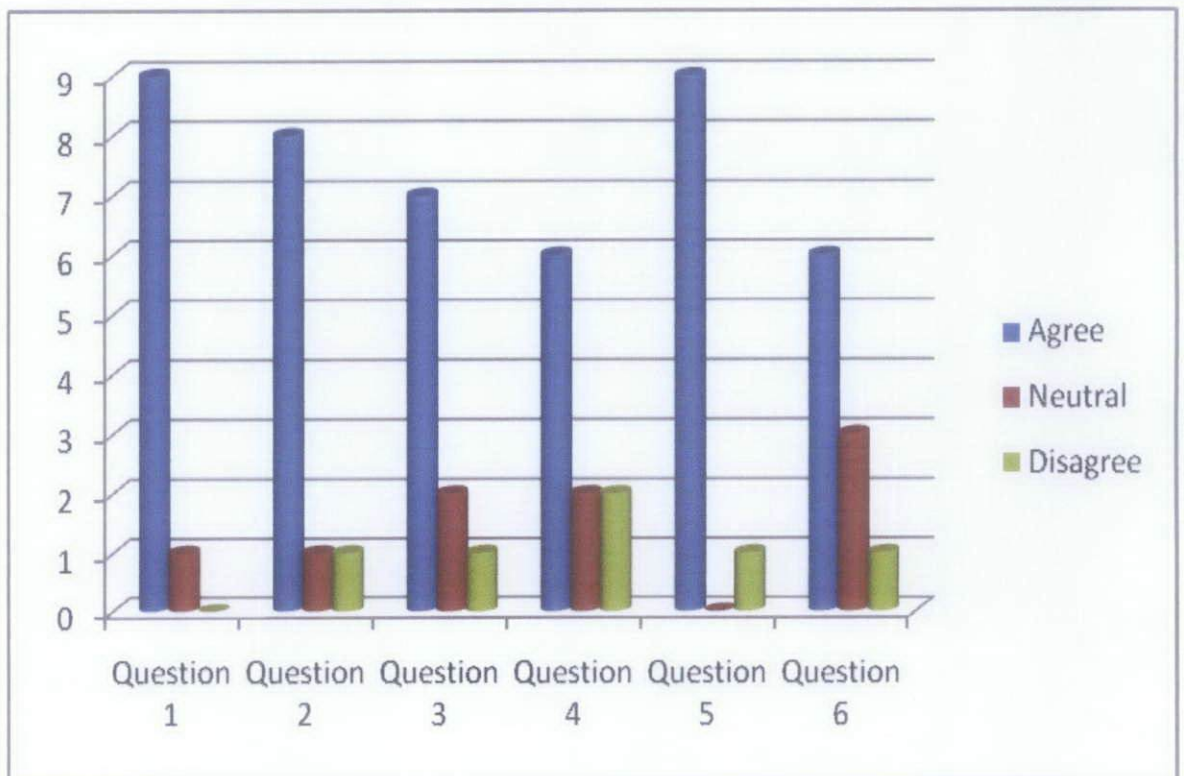
1. Developer need to deeply understand on the main user of K-Sharing Solution for Publishing Organization. The web portal need to be really informative and embedded by various type of knowledge either from journalism or knowledge sharing areas.
2. Developer can be more interactive with the user by providing pop-up window that really can explain the details modules in K-Sharing Solution for Publishing Organization using web portal.
3. Developer can enhance the web portal usability by showing most contributor user in the homepage.

As for conclusion, the objective of user testing on K-Sharing Solution for publishing organisation using web portal is successful based on user feedback and suit with their knowledge sharing needs. Prototype overall performance has reached the satisfaction level and can be accepted as a medium for knowledge sharing mechanism.

#### 4.9 User Acceptance Test

User acceptance test objective is to identify and justify the system usefulness. The test involves system users from Sinar Harian Perak. The feedback based on question survey form. The questions are as follows:

1. Understand the purpose of web portal
2. Understand how to operate the web portal
3. Are the modules are easy to handle
4. It is easy to find modules in the web portal
5. The modules function as the expectation
6. The web portal layout is neat



*Figure 22 : User Acceptance Testing Result*



## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Recommendation**

There are few recommendation and improvement need to be done to create more effective knowledge sharing portal which are it need to extend the features of content management and workflow operation. Content or idea is the main element of knowledge sharing. There should have mechanism where internal parties of publishing organization can share the knowledge with external parties from different environment.

Currently, email notification is more applicable for notification application. In future I would recommend that mobile notification is implemented because as currently not many mobile phones are equipped with internet.

#### **5.2 Conclusion**

The smooth communication between communicating parties is important as a path to come to an understanding. By implementing proper and organized approach to evaluate knowledge sharing needs, knowledge opportunities in the organization and enhance management commitment towards knowledge sharing will benefit the organization in the future. All the knowledge captured in the organization will help organization business operation and ease the management to handle with publishing material in the organized method and platform.

The organization strategy is essential to ensure this knowledge sharing portal helps the publishing organization to capture the knowledge among the employees and improve journalism workflow. The strategic approach will drive publishing organisation to implement successful knowledge sharing portal and it will generates a new platform of knowledge sharing in the publishing industry.

In conclusion, the development of this knowledge sharing portal based solution for publishing organization provides a pathway to users to communicate, share and transfer their knowledge with others user in the strategic and proper platform. At the same time, it is hoped that throughout the process of developing this system and upon completion, the author can achieved all of the objectives successful.

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## APPENDICES

### User Acceptance Testing Question

Question 1	Understand the purpose of web portal	Agree Neutral Disagree
Question 2	Understand how to operate the web portal	Agree Neutral Disagree
Question 3	Are the modules are easy to handle	Agree Neutral Disagree
Question 4	It is easy to find modules in the web portal	Agree Neutral Disagree
Question 5	The modules function as the expectation	Agree Neutral Disagree
Question 6	The web portal layout is neat	Agree Neutral Disagree