

Human Resource Development Through Knowledge Management System

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Abstract - In the era of globalization, knowledge within the company has become something that is very decisive for the success of a company. Knowledge Management System (KMS) as a key element in knowledge management, is an application system used by organizations to manage tacit and explicit knowledge as a platform for communicating information. Employee Cooperative (Kopkar) PT. Gudang Garam Tbk is a cooperative engaged in savings and loans under the auspices of PT. Gudang Garam Tbk Kediri which has a very important role in improving the welfare of employees. The advancement of science and technology is a new challenge for the HR & General Division to process the knowledge assets owned by each employee. As a result of the very accelerating effect of globalization, the emphasis on the importance of the quality of human resources (HR) is one response in responding to these changes. This research method uses data collection methods, data analysis and software development. While analyzing the knowledge management process into a client/server oriented system using the SECI model. From the report, 80% of the discussions that are often shared are in the category of cooperative management issues, and 20% discuss articles about the role of technology and how to grow productivity in an organization.

Keywords: HR Development, Knowledge Management System

1. INTRODUCTION

Knowledge Management System (KMS) is an approach systematic way of managing the use of information with the aim of transferring knowledge to someone to support the efficiency and effectiveness of decision making. KMS is an application system used in organizations to manage tacit and explicit knowledge as a platform for communicating information. Tacit knowledge is individual knowledge that is difficult to formulate, record or pronounce, and store in one's mind. Whereas explicit knowledge is a component of knowledge that can be encoded and passed on in a systematic and formal language such as documents, databases, web and so on.

Knowledge Management is an effort to produce value and intellectual property of the organization through the creation, storage, dissemination and application of knowledge to achieve organizational goals. Knowledge Management is the process of implementing a systematic approach to capture, structure, manage, and disseminate knowledge throughout an

organization so that it can be used to work faster, reuse best practices, and can reduce costly projects from project to project. [1]

The basis of Knowledge Management [2] is that as humans are unable to fully describe the full potential of the brain to its full potential, organizations as a whole are unable to fully utilize the knowledge they possess. Through Knowledge Management, organizations try to learn or create useful, potential knowledge and make it available for anyone to use at the right time and place in order to achieve effective use in order to positively make changes to organizational performance.

The type of knowledge that has not been codified or stored in storage media is called tacit knowledge [3], while the type of knowledge that has been codified or has been stored in documents and other storage media is called explicit knowledge. Tacit knowledge can also be viewed as knowledge contained in organizational culture, for example the motivation and adaptability shown by employees working in a particular corporate culture, including ideas, perceptions, ways of thinking, insights, skills/skills, and so on.

HR are people who design and produce goods or services, monitor quality, market products, allocate financial resources, and formulate all organizational strategies and objectives [4]. HR is a very vital organizational asset, so that its role and function cannot be replaced by other resources.[5]

2. RESEARCH METHOD

The research method that the author uses is the method of data collection, data analysis methods and software development methods.

A. Data Collection Method The data collection method is the most strategic step in research, because the main purpose of research is to obtain data [6].

a. Primary Data Source

To obtain primary data in the preparation of this study using several ways, namely as follows:

1. Interview

An interview is a meeting of two people to exchange information and ideas through question and answer, so that meaning can be constructed in a particular topic.

2. Observation

Observation is a complex process, a process composed of various biological and psychological processes. Two of the most important are the processes of observation and memory.

b. Secondary Data Source

This secondary data can be the result of further processing of primary data presented in other forms or from other people [6]. Secondary data sources are obtained in the form of:

1. Literature Study

Literature study is a theoretical study, references and other scientific literature related to the culture, values and norms that developed in the social situation under study.

2. Documentation

Documentation is a complement to the use of observation and interview methods in qualitative research.

B. Data Analysis Method

Data analysis is the process of systematically compiling data obtained from interviews, field notes, and documentation, by organizing the data into categories, breaking them down into units, synthesizing them, arranging them into patterns, choosing which ones are important, and

which ones will be studied, and make conclusions so that they are easily understood by themselves and others [6]. In this study the author uses descriptive analysis techniques, descriptive analysis is a statistic used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the public or generalizations [6].

C. Software Development Method

In the development of this software, the method used is the prototyping method because this method is suitable for the development that will be carried out both in terms of developers and users. According to [7] a prototype is a version of a potential system that provides developers and potential users with ideas on how the system will function in its finished form. Meanwhile, according to [8] Prototype is defined as a tool that provides ideas for makers and potential users about how the system functions in its complete form, and the process to produce a prototype is called prototyping.

Prototyping provides facilities for developers and users to interact with each other during the manufacturing process, so that developers can easily model the software to be made. There are three main approaches to prototyping, namely:

1. Throw-away

Prototypes are built and tested. The experience gained from making prototypes is used to make the final product (final), then the prototype is discarded.

2. Incremental

The final product is manufactured as separate components. The final product design as a whole has only one but is divided into smaller, independent components.

3. Evolutionary

In this method the prototype is not discarded but is used for the next design iteration. In this case, the actual system or product is seen as an evolution from a very limited initial version to a final product or final product.

In this prototyping method there are 3 stages including:

1. Listen to Customers

At the initial stage, the developer carried out collecting user needs in the HR and General Division.

2. Build or Revise Mock-ups

This stage includes modeling to help developers and users better understand the software requirements and design requirements.

3. Customer Test-drives Mock-up

The next stage is testing that will be carried out by the user, both in terms of the interface and the existing features.

3. RESULTS AND DISCUSSION

Knowledge sharing is a process of exchanging information implicit form so that it becomes explicit and new knowledge is formed. The knowledge sharing carried out at the PT Gudang Garam Kopkar includes all problems related to cooperatives, both internal problems that usually occur in membership management and external problems originating from competitors and community assumptions about cooperatives which are very bad. In this case, the media used to share knowledge is only limited to interaction only, namely formal interactions such as meetings. In a formal interaction, the Head of the HR & General Section conveys information relating to

problems that occur in the organization in the meeting room then all staff in the HR & General division have the right to express their knowledge about the topics discussed, then at the end of the meeting a joint decision is taken which will later documented by the minutes of the meeting. Meanwhile, in non-formal interactions, the Head of the HR & General Section interacts directly with subordinates spontaneously or between one staff and another without being documented.

For more details, the flow of the Usecase Process Knowledge Management System Application Diagram can be described as follows:

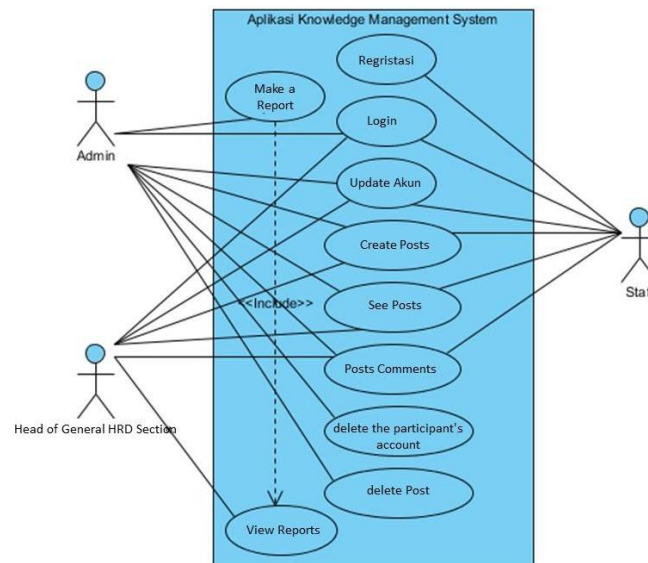


Figure 1. Usecase Diagram

Usecase Description

1. Usecase Registrasi
 - a. Staff fill in their identity into the system. (actor)
 - b. The system stores staff identity data into the database. (system)
2. Usecase Login
 - a. Admin, Staff, Head of HR & General Section enter the username and password into the system. (actor)
 - b. The system checks the username and password of the user. (system)
3. Usecase Update Akun
 - a. Admin, Staff, Head of HR & General Section enter the account menu, and update the account. (actor)
 - b. The system stores accounts updated by users. (system)
4. Usecase Create Posts
 - a. Admin, Staff, Head of HR & General Section enter the post list page, then create a new post. (actor)
 - b. The system uploads posts that have been made by users. (system)
5. Usecase See Posts
 - a. Admin, Staff, Head of HR & General Section enter the post list page, then select the post to view. (actor)
 - b. The system displays posts that have been selected by the user. (system)

6. Usecase Post Comments
 - a. Admin, Staff, Head of HR & General Section view the list of posts, then select posts to comment on. (actor)
 - b. The system uploads comments from users. (system)
7. Usecase Delete the Participan's Account
 - a. Admin enters the account menu. (actor)
 - b. The system displays a list of Staff accounts. (system)
 - c. Admin delete Staff account in the system. (actor)
 - d. The system deletes the Staff account from the database according to the admin's command. (system)
8. Usecase Delete Post
 - a. Admin enters the post menu. (actor)
 - b. The system displays a list of posts. (system)
 - c. Admin deletes posts in the system. (actor)
 - d. The system deletes posts according to admin orders. (system)
9. Usecase Make a Report
 - a. Admin generates a report. (actor)
 - b. The system processes reports according to admin orders and displays reports. (system)
10. Usecase View Report
 - a. The Head of the HR & General Section looks at the reports that have been made by the admin.

Below is a display of the use of each part of the implementation of knowledge management systems in human resource development:

a. Registration



Figure 2. Registration

The implementation of the registration form is the form used to register as a member of the discussion. This form can be accessed by anyone because this is the first page that appears when the system is started. On that page there is a login action that is used to enter the KMS system, if the account has not been registered then it cannot enter the system and must register first.

b. Home menu (staff)

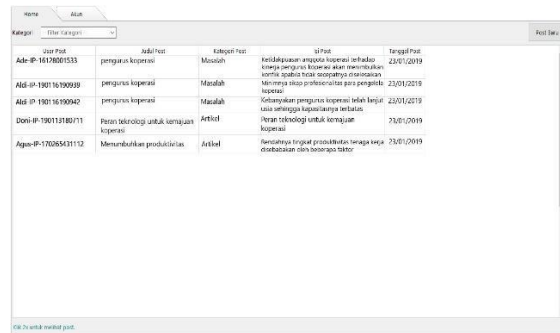


Figure 3. Home menu (staff)

Implementation of the home menu (staff) is the appearance of the home menu for staff. This menu contains all member posts, the staff can take several actions on this page including the staff being able to view the desired post by double clicking on the selected post. Staff can make posts by selecting categories according to the contents of the posts, and can make comments on each post

c. Account menu (staff)



Figure 4. Account Menu (staff)

The implementation of the account menu (staff) is the display of the account menu for staff. In this menu, staff can only change their account.

d. Home Menu (Head of HR & General Section)

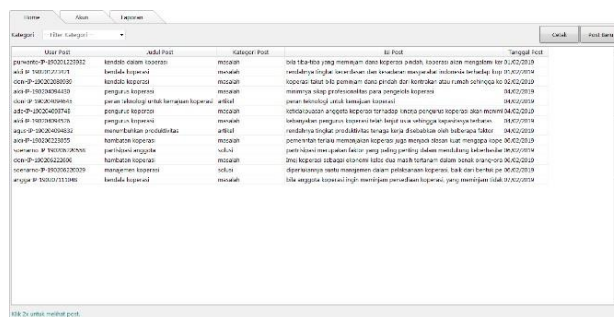


Figure 5. Home Menu (Head of HR & General Section)

Implementation of the home menu (Head of HR & General Affairs) is the initial display when the Head of HR & General Affairs enters the system. On this page there is a list of posts by members as well as posts by the Head of the HR & General Section himself, there are 2 actions, namely create post which is used to create new posts and the print action is used to print the desired post. If the Head of HR & General Affairs Section wants to see a post, just click 2x on the desired post. There is a category filter that is used to select posts according to category.

e. Account Menu (Head of HR & General Section)



Figure 6. Account Menu (Head of HR & General Section)

Implementation of the account menu (Head of HR & General Section) is a page used to change the account belonging to the Head of HR & General Section.

f. Report Menu (Head of HR & General Section, Admin)

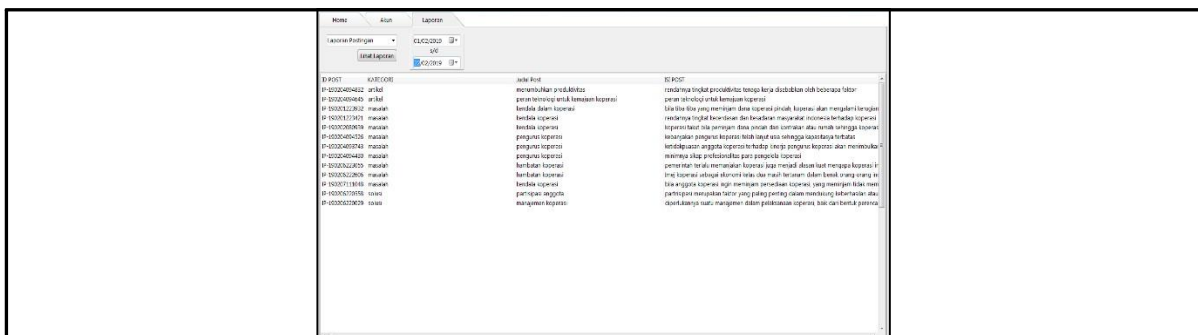


Figure 7. Report Menu (Head of HR & General Section, Admin)

Implementation of the report menu (Head of HR & General Affairs Section) is the page used to view reports. On that page there is a report filter that is used to select which reports the Head of HR & General Affairs wants to see.

g. Category Menu

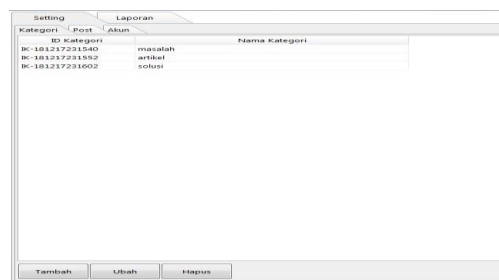


Figure 8. Category Menu

Implementation of the category menu is the settings page for the admin, in this menu the admin can perform several actions, namely adding categories, changing categories, and deleting categories.

h. Menu Post (admin)

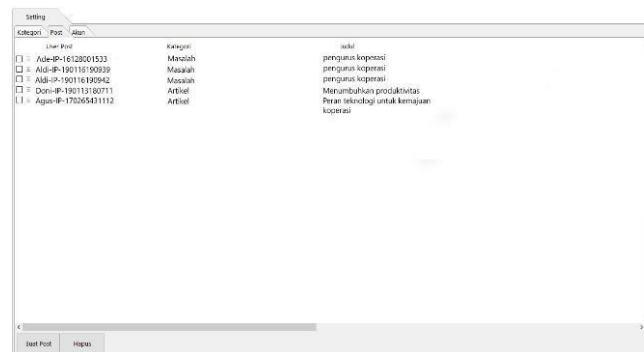


Figure 9. Menu Post (admin)

Implementation of the post menu (admin) is a view that contains all posts. In this post menu the admin can take several actions including the admin being able to view posts by double-clicking on the post, being able to create new posts and commenting on each post, and being able to delete member posts.

i. Account Menu (admin)

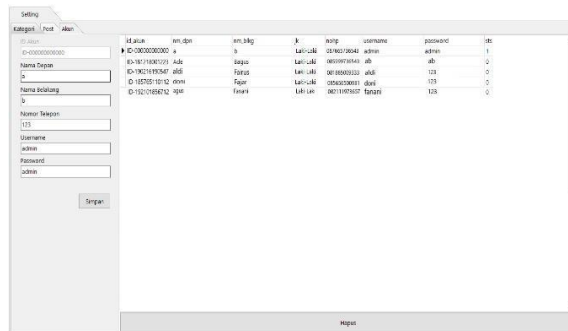


Figure 10. Account menu (admin)

Implementation of the account menu (admin) is the menu used to change the admin account. In this menu the admin can also delete member accounts.

j. Post Menu

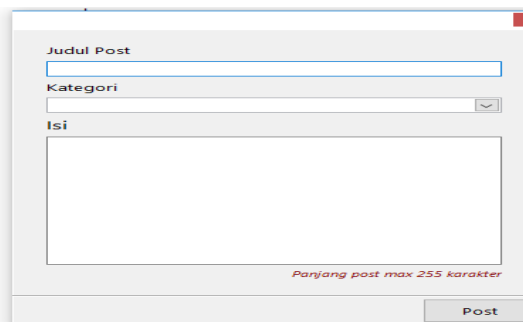


Figure 11. Post Menu

Implementation for posting is the form used to create a new post.

k. Post Display Form

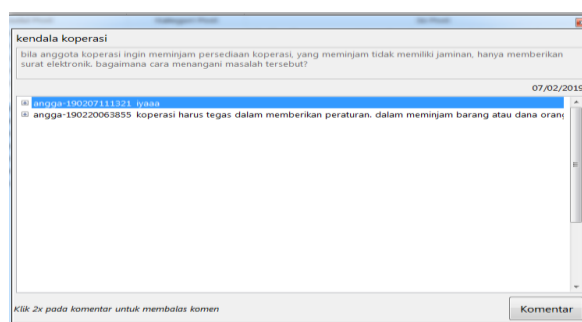


Figure 12. Posting Display Form

The implementation of showing posts is the form used to display the desired post.

I. Input Comment Figure

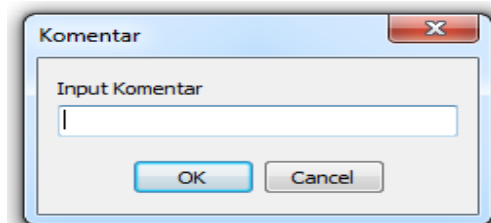


Figure 13. Input Comments

Implementation of comment input is a display that is used to comment on each desired post.

In analyzing the knowledge management process at Kopkar PT Gudang Garam Tbk into a client/server oriented system using the SECI model, so that this system can facilitate the HR & General division in managing the knowledge possessed by each employee. From this analysis, it can be seen the difference between before the system existed and after implementing the KMS system with the SECI model.

Table 1. Differences in System Usage

Model SECI	Before there was a system	after the system
<i>Socialization</i>	The socialization process is carried out face to face	The socialization process can done without having to meet face to face
<i>Externalization</i>	Knowledge that has been shared has not been properly documented	Knowledge that has been shared can be documented so that it can be stored neatly
<i>Combination</i>	No filtering between valid and invalid knowledge	Filter and replace invalid knowledge becomes new knowledge
<i>Internalization</i>	To learn things it takes quite a long time because there is no documented knowledge	Can learn things new from the knowledge that has been shared

From the report, it was found that 80% of the discussions that were often shared were the category of problems regarding the management of cooperatives, and 20% discussed articles about the role of technology and how to grow productivity in an organization.

4. CONCLUSION

Based on the results of the study, it can be concluded that the implementation of a knowledge management system in the development of human resources in the HR & General Division at Kopkar PT Gudang Garam Kediri using the SECI model can fulfill the knowledge creation process, where the process of tacit knowledge becomes explicit knowledge, can create knowledge. through a culture of knowledge sharing, both among employees and superiors. Processes such as socialization are created through discussion forums and responses or comments on any published information. The externalization process is created through uploaded documents or information. The combination process can be created through documents such as organizational structures or other information that needs to be updated if needed. The internalization process can be created from every discussion a conclusion is made which later the conclusion can be studied by other employees who can access it.

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