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# CORE KNOWLEDGE ANALYSIS BASED ON DEBOWSKI MODEL ON PT. PINS INDONESIA

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## ABSTRACT

*Today, the use of Information Technology is increasing, from daily use to use for business activities. However, the use of Information Technology has not been able to resolve some of the problems faced by companies in Indonesia, especially in terms of knowledge management. This results in information and knowledge that is not conveyed comprehensively to employees, resulting in not optimal productivity. Therefore, researchers conducted Core Knowledge analysis in one of the companies in Indonesia and provided a prototype of a knowledge management system based on the results of the Analysis. The result of the analysis in PT. PINS Indonesia, the company would require a Knowledge Management System that could assist it's employee to obtain a knowledge and other corporate related information. So that knowledge management can run better and increase employee productivity in the company.*

**Keywords:** Knowledge, Management, Analysis, Corporate

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## 1. INFORMATION

With the use of IT that is increasingly being used by various layers of society, making IT use as a way to get information in an easy, fast, and consistent way. Including the use of the company to be used as a solution to manage information. This certainly will have a positive impact in terms of information dissemination, and management of information available.

Technology that is growing rapidly, making its use easier with time. At the beginning of 2019, where technology has entered into everyday life in the form of web that can be accessed using handheld devices, making each individual can access information without having to use certain devices without the need for special devices, so as to reduce infrastructure costs related to the procurement of employee end devices.

Therefore, researchers want to know whether the application of information technology in terms of knowledge management can have a significant impact and profit on the company. In this case, researchers will use web-based technology with a mobile friendly design. In this study it

will be limited only to the application of web-based applications with databases hosted on the company's internal cloud.

One obstacle to information sharing is that there are obstacles to managing information and confidentiality of some information that can only be accessed by a number of users. In other cases, the dissemination of information can only be done to several employees and increases the risk of dissemination of information that is not comprehensive. Because the information published by the company cannot be easily accessed by employees.

In conducting research related to barriers to information dissemination, researchers conducted research on the company PT. PINS Indonesia which is a subsidiary of PT. Telekomunikasi Indonesia, which has a portfolio of CPE Services, Mobility Services and IoT Services, uses the Debowski [1] model.

The research will begin with an initial analysis of the People, Process and Technology aspects of existing conditions, then proceed with Core Knowledge Analysis Model by Shelda Debowski [1], then proceed with alignment with the Business Strategy applied at PT. PINS Indonesia.

Then the results of the analysis will be used as a basis for determining Knowledge Management system prototypes that have the potential to reduce barriers in the dissemination of information to all employees.

## 2. LITERATURE REVIEW

According to Molloy JC [11], Information Technology is formed from a collection of data or information, including the collection, analysis, publication, re-analysis, criticism and reuse of a data or information on a matter. In 2019, information technology such as Internet, has developed very rapidly, where information can be easily accessed using portable devices that can be carried anywhere. The Internet is a computer network that is connected to each other in certain areas to the entire world. Exchange of information for various purposes can be done without recognizing distance and time, with the speed of sending data very quickly which tends to be instant [13].

Web-based management system is an internet application including a database that has a directory structure that connects each web page with each of its attributes [12]. Each web page that is displayed when making access, will display data and information that has been previously entered, then can be displayed according to the needs and permissions that apply. But before an Internet Application is release, a prototype is required.

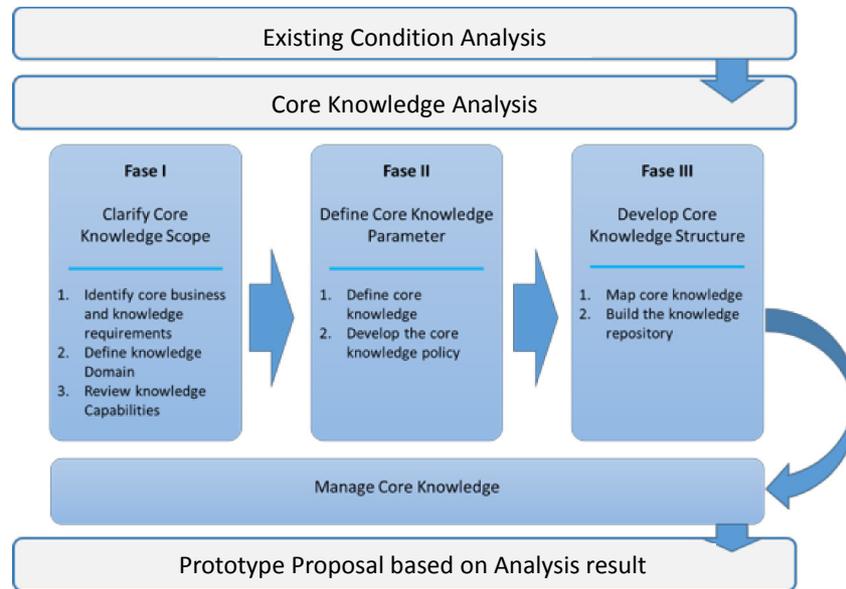
Prototype is an initial model of the system to be built. The Prototype model is the initial development that is given to the user with limited functionality, then it will be adjusted to the user's needs [10]. Some applications are widely used throughout the world, always using prototypes before releasing applications. This is so that if there is a change in the application, the development process does not have to be done by repeating it. Making prototypes is prepared in a shorter time before the application is released, in the form of a screen display with a button that can be clicked and redirected to the destination page. The page is a description of the application to be released and is not an actual application. So that if there are adjustments, it will not increase development time because it must be developed again from the beginning.

A good Knowledge Management application should have the core knowledge analysis as the base of the application development. Knowledge is a resource in improving the economy of an organization or company. In 2019, there were many organizations that offered data or information on the results of analysis to other parties with business agreements [14]. Knowledge management is an activity or stage that is used by organizations or companies to create, identify, group and distribute knowledge or information. So the main goal of knowledge management is to maintain and distribute knowledge or information effectively [6]. Knowledge management is basically a management process of information or company knowledge and intellectual assets that can

improve various characteristics of organizational performance and add value by allowing a job to be completed in a better way and has been tested beforehand [3].

### 3. THEORITICAL ANALYSIS

Core knowledge is the main knowledge in a company that aims to achieve the vision of the company [2]. There are three phases to determine the core knowledge of a company in accordance with Figure 3.1



**Figure 3.1** Analysis steps [2]

The framework of the study consists of several activities based on Debowski's Model [2], as follows:

1. Analysis of Current Conditions  
Analysis of existing conditions based on people, process and technology perspectives.
2. Core Knowledge Analysis  
After the analysis of the existing conditions is complete, the research will be continued by conducting an analysis of Core Knowledge based on Debowski's model at PT. PINS Indonesia.
3. Proposed Knowledge Management System prototype  
After the Core Knowledge Analysis is complete, the research will be continued to conduct a search and development of a Knowledge Management System that can be used at PT. PINS Indonesia.

Based on the three stages of Core Knowledge Analysis, it can be described as follows:

1. First Stage - Clarify Core Knowledge Scope  
In the first stage, identify the basic needs of the business, group knowledge based on the criteria of the company or organization, to identify the capability of developing knowledge.
  - a) Identify basic business needs  
In identifying the basic business needs of a company, it must be identified in advance regarding the business activities of the company or organization and the main determinants and supporters of the success of the business activity.

b) Grouping knowledge / Knowledge Domain

Analyzing the classification and grouping of knowledge based on parameters set by the company or organization.

c) Knowledge capability

Analyze the potential for development of each of the identified knowledge.

2. Second Stage - Define Core Knowledge Parameters

After the first stage is complete, the next step is to establish knowledge according to the following parameters:

a) Core Knowledge

It is knowledge that is directly related to the operations or business activities of the company, Core Knowledge is divided into 3 categories, namely:

i. Basic Core Knowledge

General knowledge related to activities or work that takes place in a company or organization.

ii. Strategic Core Knowledge

Limited knowledge, which relates to the company's strategic data.

iii. Development Core Knowledge

Knowledge that is still in development and has potential that can improve the operations of an organization or company.

b) Develop Core Knowledge Capacity

It is a development of the regulations stipulated in managing knowledge available in organizations or companies.

3. Third Stage - Develop Core Knowledge Structure

After the second stage is complete, the next step is to make the main structure of knowledge possessed. The third stage consists of the following categories:

a) Core Knowledge Map

It is a mapping of knowledge based on the interests and categories defined by the company or organization. Knowledge mapping aims to make every available knowledge have relations with each other so that it will be easier to find the knowledge sought as a reference for conducting business activities of the company.

b) Core Knowledge Repository

It is a media for storing knowledge with management such as collecting, creating new, updating, and distributing available knowledge.

#### 4. RESULT AND DISCUSSION

Analysis of the existing conditions of the company is based on the following three methods:

1. Initial questionnaire to employees.

The questionnaire was addressed to employees from the Staff level to the Senior Leaders who were in charge of PT. PINS Indonesia and PT. Telekomunikasi Indonesia Tbk, including among them employees who have technical or business backgrounds. The number of respondents who filled out the questionnaire was 71 respondents.

2. Direct observation of knowledge management systems.

Observations were made based on the experience of working researchers for 6 years from 2013.

3. Interview with job PIC.

Interviews were conducted with Senior Leaders from the unit with a technical background (Business Innovation & Strategic Partnership Unit) and Senior Leaders from the Business unit.

The Core Knowledge Analysis will be analyzed using the Debowski Model [2] method which consists of three phases, the explanation of each phase is as follows:

**4.1. Clarify Knowledge Scope**

In the Clarify Core Knowledge Scope section, there will be an analysis of Core Business and the needs related to the knowledge available in the company. As well as identifying the available Knowledge Domain.

**4.1.1. Identify Core Business and Knowledge Requirements**

PT. PINS Indonesia is a company that has a portfolio of services related to the provision of equipment and services to operational management that requires knowledge to specific training for employees to be able to run business processes properly.

Based on this, it is necessary to manage information to support employee performance with the best methods and procedures.

**4.1.2. Define Knowledge Domain**

Based on the results of observations that have been conducted for 6 years, the following are Knowledge Domains owned by PT. PINS Indonesia, among others:

- i. Basic knowledge related to the company, such as vision and mission, corporate culture and corporate structure.
- ii. Knowledge of procedures or best practices for each job.
- iii. Knowledge of end-to-end business processes that apply at PT. PINS Indonesia
- iv. Knowledge in using IT Tools business owned by PT. PINS Indonesia and Telkom Group.
- v. Knowledge related to products and services owned by PT. PINS Indonesia.
- vi. Knowledge related to the development and mastery of IT-based solutions and the Internet of Things.

**4.1.3. Review Knowledge Capabilities**

Based on the results of interviews and questionnaire results with employees from PT. PINS Indonesia, there is some knowledge held by employees and development can be carried out as follows:

- i. Knowledge related to best practice that is owned by several employees, can be developed into a standard known to all employees. So that the work can be done in the best way.
- ii. Knowledge related to certain technologies that can be used as product innovation for the company.
- iii. Knowledge related to corporate culture that can be disseminated to all employees, to improve the family atmosphere and apply The Telkom Way culture at work. This will have an impact on increasingly close collaboration between employees.

## **4.2. Define Core Knowledge Parameter**

In the Define Core Knowledge Parameter section, an analysis of the knowledge parameters that will be determined according to the company's needs will be analyzed.

### **4.2.1. Define Basic Core Knowledge**

The following is the Basic Core Knowledge defined in PT. PINS Indonesia, among others:

- i. Knowledge related to the company  
All knowledge relating to the company, such as vision and mission, targets the company. Knowledge related to certain technologies that can be used as product innovation for the company.
- ii. End-to-end business process of the company  
All business activities carried out by the company such as managing documents to the financial unit.
- iii. Company products and services  
Understanding of products and services owned by the company, such as product documentation, template documents related to products or services.
- iv. Best Practice Working Method  
Understanding and knowledge related to best practice in completing a job.
- v. Documents related to specific projects  
Documentation of the current project or previous project, complete with documentation of Minutes of Meeting, technical documentation, business documentation, and Lesson Learned.

### **4.2.2. Define Strategic Core Knowledge**

The following is the Strategic Core Knowledge defined in PT. PINS Indonesia, among others:

- i. Knowledge related to technical work  
All knowledge is related to work such as best practices, Lesson learned, to the technical specifications of a project.
- ii. Knowledge related to the product market  
All knowledge related to market plans, prices and revenue projections for each product.

### **4.2.3. Define Development Core Knowledge**

Berikut ini adalah Development Core Knowledge yang di definisikan dalam PT. PINS Indonesia, antara lain:

- i. Knowledge related to technology  
All knowledge related to trends and the latest technology research can be presented as product and service innovations from the company.

## **4.3. Develop Core Knowledge Structure**

To support Knowledge Management programs that can be implemented according to company needs. PT. PINS Indonesia must develop several procedures for knowledge management policies as follows:

- a. Collection of all knowledge into one platform that can be accessed by all employees in accordance with the position

- b. There is supervision of knowledge content to ensure that knowledge is in a valid category.
- c. Every knowledge related to best practice in doing office work must be uploaded into the Knowledge Management system.
- d. There is an obligation for employees to create knowledge content as a condition for annual performance assessments.

As for the Map Core Knowledge and Knowledge Respository can be described as follows:

#### 4.3.1. Map Core Knowledge



**Figure 4.1** Map Core Knowledge

Knowledge Map from PT. PINS Indonesia, can be described as follows:

- a. **Product Management**  
Consists of knowledge related to products and services, with template documents to ensure variants of product documents.
- b. **Innovation Corner**  
Consisting of knowledge related to innovation and knowledge that can be developed in the future.
- c. **Employee Corner**  
Consisting of knowledge related to employees, including news, employee development to chat between employees to facilitate collaboration.
- d. **General Knowledge**  
Consists of general knowledge of the company.

#### 4.3.2. Knowledge Repository

All knowledge that has been collected will be stored in the Knowledge Management System centrally. And validation will be done by the validator team to ensure that the knowledge displayed is valid.

The following are activities to ensure the quality of knowledge:

- a. **Content Evaluation**  
The process for evaluating content and ensuring that content remains relevant and valid in the Knowledge Management System.

- b. Content Maintenance  
The process of updating available knowledge to remain valid and accurate.
- c. Content Archives  
Storage of content that is not valid but can still be accessed if needed.

## 5. RESULT AND DISCUSSION

Based on the results of the analysis carried out on Knowledge Management using Debowski's model [2] at PT. PINS Indonesia, conclusions can be described as follows:

1. By using Knowledge Management, every knowledge can be managed properly by the company, so that strategic knowledge can be disseminated to all employees to increase productivity.
2. With the existence of a forum to accommodate all knowledge and information held by employees, it will make the sharing of information between employees smoothly. Especially for knowledge such as Best Practice, it will be more easily understood and accepted by employees.
3. With document standardization made, it can avoid duplication of documents to invalid knowledge.

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