KNOWLEDGE MANAGEMENT SYSTEM DESIGN
AT HUMAN RESOURCES DIVISION

Yanti¹; Jurike V. Moniaga²

¹, ² Jurusan Komputerisasi Akuntansi, Fakultas Ilmu Komputer, Universitas Bina Nusantara, Jln. K.H. Syahdan No.9, Palmerah, Jakarta Barat 11480 jurike@binus.ac.id; yanti@binus.ac.id

ABSTRACT

The Human Resources Division of a company is a vital division. Most of the time, they perform their work manually, and therefore creating limitations to their capacity. The knowledge contained is very important for human resources development and subsequently for developing the company. In order to manage this knowledge well, the company shall require a knowledge management system. This knowledge management system would be a solution to be used for the company to manage all knowledge contained in that particular division. Phases in designing knowledge managements starts from analyzing knowledge sources of the company, knowledge identification and definition, and determining knowledge goals. Knowledge management systems contain many functions such as collecting, recording and managing the knowledge and sharing this to all related employees easily. The company may also use knowledge management systems to share and inform employees regarding updates of information, news and/or activity regarding the employees themselves. Information from knowledge management systems may also be used by employees to monitor their performance and thereby increasing it. Knowledge management systems may also help employees in their learning activities.

Keywords: knowledge management, human resources, employee

INTRODUCTION

Western philosophers have generally agreed that knowledge is justified true belief which is a concept that was first introduced by Plato. However, the definition of knowledge is far from perfect in terms of logic. According to this definition, our belief in the truth of something does not constitute our true knowledge of it, so long as there is a chance, however slight, that our belief is mistaken. Therefore, the pursuit of knowledge in Western philosophers to search for the method to help them establish the ultimate truth of knowledge beyond all doubt. They have aimed to discover “fundamental knowledge without proof or evidence,” on which all other knowledge could be grounded.

Data is a set of discrete, objective facts about events. In an organizational context, data is most usefully described as structured records of transactions. Modern organizations usually store data in some sort of technology system. It is entered into the system by departments such as finance, accounting and marketing. Until recently it has been managed by central information systems departments that respond to requests for data from management and other parts of company. The current trend is for data to be somewhat less centralized and available on demand from desktop PCs, but the basic structure of what it is and how we store and use it remains the same.

Quantitatively, companies evaluate data management in terms of cost, speed and capacity. Qualitative measurements are timeliness, relevance and clarity. All organizations need data and some industries are heavily dependent on it. Data describes only a part of what happened; it provides no judgment or interpretation and no sustainable basis of action. But data is important to organizations, because it is essential raw material for creation of information.

Information is a message, usually in the form of document or an audible or visible communication. As with any message, it has a sender and a receiver. Information is meant to change the way the receiver perceives something, to have an impact on his judgment and behavior.
Quantitative measures of information management tend to include connectivity and transactions. Qualitative measures measure informativeness and usefulness. Unlike data, information has meaning the relevance and purpose. Not only does it potentially shape the receiver, it has shape: it is organized to some purpose. Data becomes information when its creator adds meaning. We transform data into information by adding value in various ways.

Most people have an intuitive sense that knowledge is broader, deeper and richer than data or information. Knowledge is a fluid mix of framed experience, values, contextual information and expert insight that provides a frame work for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowledge owners. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.

First, knowledge, unlike information, is about beliefs and commitment. Knowledge is a function a particular stance, perspective or intention. Second knowledge, unlike information is about action. It is always knowledge “to some end”. And third, knowledge, like information, is about meaning. It is context-specific and relational.

Although terms “information” and “knowledge” are often used interchangeably, there is a clear distinction between information and knowledge. As Bateson (1979) put it, “information consists of differences that make a difference”. Information provides a new point of view for interpreting events or objects, which makes visible previously invisible meaning or sheds light on unexpected connections. Thus information is a necessary medium or material for eliciting and constructing knowledge. Information is a flow of messages, while knowledge is created by that very flow of information, anchored in the beliefs and commitment of its holder. This understanding emphasizes that knowledge is essentially related to human action.

Finally, both information and knowledge are context-specific and relational in that they depend on the situation and are created dynamically in social interaction among people. Berger and Luckman (1966) argue that people interacting in a certain historical and social context share information from which they construct social knowledge as reality, which in turn influences their judgment, behavior and attitude.

Michael Polanyi’s (1966) describe that tacit knowledge is personal, context-specific and therefore hard to formalize and communicate. Explicit or “codified” knowledge, on the other hand, refers to knowledge that is transmittable in formal, systematic language. Polanyi contends that human beings acquire knowledge that can be expressed in words and numbers represents only the tip of the iceberg of the entire body of knowledge. In contrast, Polanyi contends that human beings create knowledge by involving themselves with object, that is, through self involvement and commitment, or what Polanyi called “indwelling”. To know something is to create its image or pattern.

Table 1 Two Types of Knowledge

<table>
<thead>
<tr>
<th>Tacit Knowledge (Subjective)</th>
<th>Explicit knowledge (Objective)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of experience (body)</td>
<td>Knowledge of rationality (mind)</td>
</tr>
<tr>
<td>Simultaneous knowledge (here and now)</td>
<td>Sequential knowledge (there and then)</td>
</tr>
<tr>
<td>Analog knowledge (practice)</td>
<td>Digital knowledge (theory)</td>
</tr>
</tbody>
</table>

Knowledge management enables the creation, distribution, and exploitation of knowledge to create and retain greater value from core business competencies. Knowledge management addresses business problems particular to your business, whether it is creating and delivering innovative products or services; managing and enhancing relationships with customers, partners and suppliers or improving work processes. The primary goal of knowledge management in a business context is to facilitate opportunistic application of fragmented knowledge through integration.

The ability of companies to exploit their intangible assets is far more decisive than their ability to exploit their physical assets. As markets shift, uncertainty dominates, technologies proliferate, competitors multiply and products and services become obsolete rapidly, successful companies are characterized by their ability to create new knowledge consistently, quickly disseminate it and embody it in their new products and services. The key to harnessing their expertise with developing threats or opportunities in other countries is a primary driver of business success. By rapidly exploiting knowledge intensive collaboration across individuals, teams and communities of specialists.

Seventh, tacit knowledge is mobile. The most valuable knowledge, skills and competencies in your business reside tacitly between the ears of your employees. As easily as these elements accompany employees home every night, they can also be lured into competitor’s corner office. Tacit knowledge can rarely be fully articulated, yet in can be easily manifested through knowledge from these processes, it can maximize its productive application for both leading and adapting to turbulent business environments.

Knowledge Management System... (Yanti; Jurike V. Moniaga) | 35
Eight, knowledge application requires water cooler and coffee machine cultures; IT barely supports sharing. Knowledge management, as artificial intelligence research ironically reminds us, is not about machines but about culture.

The role of Human Resources has changed significantly over the past couple of decades and its continuing to change as the Human Resources profession strives to gain acceptances as strategic business partner. In many organization Human Resources is performing a very different role to that twenty to thirty years ago. Its role has evolved from that of payroll clerk and welfare supporter, through corporate policeman and industrial relations expert, to that of a business partner role. A key of change has been in the label given to those working in the field of Personnel. The Personnel label, other than in public sector organizations, has been largely superseded with that Human Resources. This change coincided with decline in the importance associated with industrial relations, both in economic and political terms and the decline in the membership and influence of trade unions (Guest, 1998).

The Human Resources Management agenda according to David Guest (1998) is concerned with ensuring commitment from employees; creating a focus on values, mission and purpose; developing an environment based on high trust and building an organization consisting of flexible roles, flatter structure and where there is autonomy and self control within the work that individuals do. The Human Resources function, according to Dave Ulrich (1998), is crucial to organizations achieving excellence. Excellence, according to Ulrich comes through a focus on learning, quality, teamwork, reengineering, knowing how things get done within an organizations and also how people get treated; all of which are Human Resources issues and hence achieving organizational excellence requires the work of Human Resources.

| BUSINESS STRATEGY | INFORMATION SYSTEM |
| KNOWLEDGE GOALS | KNOWLEDGE IDENTIFICATION |
| SYSTEM DESIGN CONCEPT |
| MENU MAPPING |
| MENU OF APPLICATION DESIGN |
| DATABASE DESIGN |
| USER INTERFACE DESIGN |

Figure 1 Framework of Knowledge Management Design

RESULTS AND DISCUSSION

Menu Design

Knowledge management application is divided into 8 main menus, including main page (home). That main menu are User Management, Library, Project, Event, Community, MoM (Minute of Meeting), Training, and Helpdesk.

First, User Management. User management contains about personal employee data, record and performance evaluation, task, responsibilities each division. Another data contain level of achievement from each division and report form working result from task and responsibilities outside from regular job. Using personal employee data, an employee can see about his/her personal data and doing update. Only register user/employee can do update or changes data. And a manager can give a note about employee performance. This note only can see by manager who have authorize.

Other sub menu in this menu may contain job descriptions and responsibilities, which every employee can access, but cannot change. Other sub menus are work report, which can use support employee reporting work that doing outside regular task. This application can send automatic report to manager. User Management menu required fields, which are Name, Birth Date, User, Gender, Password, Address, Login Type, Job Type, Join Date, Date, Problems, Solving, PIC, and Remarks. Non-required fields, which are Email, City, Province, Postal Code, Country, Home Phone, Work Phone, Fax, and Scoring.

Second, Library. This menu support function and performance. By this menu, employee can search for any kind of reference or human resources articles. item in library not only from book, but can from magazine, user manual, CD, DVD, motivation articles, personal skill development articles. An administrator can update, add, change and delete the item in this menu. Library menu fields, which are Title, Author, Synopsis, Type, Co Author, Subject, Volume, Edition, Issue, Year Published, Pages, Book Cover, Notes, Book Number, Location, ISBN, and Publisher. To grouping project knowledge can be by Title, Author, Type, Co Author, Subject, Year Published, ISBN, and Publisher.

Third, Project. The main purposes of this menu are to document a project, since project start until project finishing. Using project menu, an employee who involve with project can upload about project progress and results. This documentation can use as reference for next step of project. Project menu fields, which are Name, Start Date, Due Date, Detail, Status, and Notes. Project knowledge can be grouped by Name, Start Date, Due Date, and Detail.

Fourth, Event. Human resources division or other division can use this menu to upload new event schedule in company. Through this menu, an employee can input his/her personnel agenda in company, and can setting form alert system. This alert system can set by time of event or can set by activity calendar. The system will give reminder to employee about the event before the day. With this menu, an employee can organize daily task or daily working program. Event menu fields, which are Event Name, Event Date, Detail, and Notes. Event knowledge can be grouped by Event Name, Event Date, and Detail.

Fifth, Community. This menu is divided in 2 different sub menu which to support employee activity in company. These sub menus are (1) Announcement, contains about any
announcement in company, can be about rules, board policy, new event, refreshing activity, etc. this sub menu must be managed by administrator or manager. Community menu fields contain about Name, Category (General, Special), Title, and Division. Forum knowledge can be grouped by Name, Category, Title, Division, and Date.

Sixth, Training. Purpose of training menu is to support management and documentation of all of training event in company. In its implementation it can record training topics and as information media to share idea, aspiration, culture, and Division. Forum knowledge can be grouped by Name, Category (General, Special), Title, and Date.

Training knowledge can be grouped by Date, Topic, Type, Keyword, Theory, and Trainer. Seven, MoM (Minute of Meeting). Menu contains all of meeting result. Using this menu employee can see the progress about task or decision in meeting. Include data about meeting time, agenda, meeting topic, meeting result, audience, leader, etc. MoM menu fields contain about Topic, Agenda, Leader, Result, Date, Audience, Speaker, Place. To grouping MoM knowledge can be by Topic, Agenda, Result, and Date.

Eight, Help Desk. Help desk stores data on problem and solutions, especially in relation with information system problem, human resources management, or other topic problem. Using this menu, the employee may search or operate the computer and solve the problem more easily using help desk menu. Helpdesk menu fields contain about Category, Type, Solution, and Problem. To grouping helpdesk knowledge can be by Category, Type, and Problem.

### Framework Database

Based on menu field, the database framework can be seen on Figure 2; and User Interfaces Structure can be seen on Figure 3.
CONCLUSION

Human resources management division is important division for a company. They have to manage all of employee data. To manage that data, it is important to have complete archives. Knowledge management system can be the answer for company to solve that problem since Knowledge management system can always record and update data, and it would be easier for users or employees to maintain their data, and Human Resources division can communicate information the employee needs fast. Other benefits from Human Resources Knowledge Management System are to help Human Resources division in doing maintain and development employee skills to improve employee performance and enhance the quality of human resources in company. To develop Human Resources knowledge management, first, company must state knowledge goals to be achieved. These goals are the basic role to identification knowledge needed by employees. After knowledge identification, the next step can be adopted from system development life cycle for technical analysis and design.

REFERENCES