Knowledge Management System Based On BINUSMAYA Web Application

M. Ricky Adiyudha, S.Kom.¹; WishiAdiPurnomo, S.Kom.²
¹BINUS Graduate Program, Faculty School of Information System, Bina Nusantara University
JI KH Syahdan 9, Jakarta 11480, Indonesia, rickyadiyudha@gmail.com
²BINUS Graduate Program, Faculty School of Information System, Bina Nusantara University
JI KH Syahdan 9, Jakarta 11480, Indonesia, wishiadi9294@gmail.com

Abstract
This article discusses the implications of The importance of sharing knowledge in lectures. In this highly in need of an alternative in the treatment of learning for new students and professors who taught courses in java. Knowledge Management can answer it. With the technology-based e-mobile role knowledge management systems increasingly felt. In this research will built a Knowledge Management System approach to SECI Model will be applied to e-mobile based learning. To test the readiness of SECI Model done with Knowledge Management Diagnostic. Testing SQA on Knowledge Management System application that was created with the purpose of measuring the quality of the application. The authors hope the material in this article can be as knowledge to the reader and the author regardless of fault.

Key words: lectures, java, SECI Model, SQA.

1. Introduction
Conditions tighter competition in the era of globalization entail a paradigm shift from a resource-based competitiveness be relied knowledge-based competitiveness. Both of these concepts are very contradictory, which the first concept rests on the excellence of the location of natural resources and geographical conditions. The second concept is based on science and technology and development human resources company. To facilitate resource development man company needed the ability to manage and develop knowledge possessed. Knowledge management (Knowledge Management) of the in the end can be a reliable support for the company to improve competitiveness.[1]

Knowledge management becomes a fundamental role when a company They want the management and structured data storage. Tiwa argued that there were 24 triggers include knowledge management, needs to prevent costly errors and repeated, the need to prevent rediscovery unnecessary, the need for accurate prediction and anticipation emerging needs will be a competitive response.[2]

Data, information, and knowledge is basically complementary concepts related. According to Bergeron (2003), which referred to data, information, and knowledge distinguished as follows. Data is the number or attributes that are quantity managed from observation, experiment or calculation. Information is data in one particular kontektual is a collection of data and related explanations interpretation, and other related material about objects, events, or specific process. Knowledge is information that has been organized, synthesized, for summarized to increase understanding, awareness, or understanding.

The development of education in Indonesia is currently more focused on improving quality in order to compete globally. Global competition has caused global competition. When in the field of economics, global competition characterized by the free market will provide opportunities for any country to market its products in the form of goods and services in any country without restriction, and education, to react with the collaboration. It is already beginning to be felt lately with the more active of the agents overseas educational institutions offering collaborative programs professionally and proportionately. Community may prefer quality education institutions. Similarly, educational institutions can better target the prospective learners with specific segments. Of prospective students to be more focused.

Understanding Knowledge views of philosophy, Knowledge will not be translated, because understanding Knowledge itself is still debated. Knowledge is not just knowledge. According LendyWidayana (2005), Knowledge is information that comes with understanding the relationship.
patterns of information with experience, both individuals and groups within the organization. Knowledge is the application of information believed to be directly used to take a decision to act. Carl Davidson and Philip Voss (2003), said that managing knowledge is actually how organizations manage their staff than on how much time they spend on information technology. According to Davenport (1998), defines Knowledge as follows: "Knowledge" is a mixture of experience, values, contextual information, expert views and fundamental intuitions that provide an environment and framework to evaluate and integrate new experiences with information. Knowledge is often linked in the company not only in documents or storage of valuables, but also in routines, processes, practices and norms of the company".

According Ikojiro Nonaka, et al (2008) new knowledge arising from their continuous interaction between explicit knowledge (unrevealed) and tacit (latent). Actualized knowledge is a form of knowledge that is already documented / formalized, easily stored, reproduced, disseminated and studied. such as manuals, books, reports, documents, letters and so on. While the latent knowledge is a form of knowledge that is stored in the human mind, such as ideas, perceptions, ways of thinking, insight, expertise / skills, and so on. Continuous interaction include four stages, namely socialization (pent-to-pent), externalization (pent-to-unrevealed), combination (unrevealed-to-unrevealed), and Internalization (unrevealed-to-pent). These interactions serve as a model called SECI Model.

a. Socialization (socialization) is the process of transfer of knowledge from one individual to another or the environment directly. (RinaldoPietrantonio, 2008).

b. Externalization (externalization) is the process of translating the experience, instincts or analysis capability into a more tangible form such as reports, writings, books, digital data, a concept or prototype (Ikujiro Nonaka, 2001).

c. Internalization (internalization) is the process of absorbing the knowledge of the literature and try it in everyday life is often called learning-by-doing. The end result of this process is the formation of thoughts, ideas or concepts from the results of tests conducted. (Isabelle Monkey, 2004)

Knowledge Management System (KMS)

Knowledge Management System (KMS) is a technology that enables KM run effectively and efficiently. KMS also can help the development of the organization into a learning organization. It is important for an organization to become a learning organization. Changes that occur inside and outside the organization requires the organization to continually learn and adapt, in order to follow the changes or be in front of these changes in order to maintain themselves and not fall behind in the turmoil of change.

Knowledge management system has four types of classification element

must be awakened namely:

1. Knowledge discovery system
2. Knowledge capture system
3. Knowledge sharing system
4. Knowledge application system

The factors that make effective Knowledge management, according to the results Fernandez research is divided into two factors, namely:

a) 80% due to the success of organizational cultural factors and human factors.

b) The success of 20% due to factors that facilitate technology knowledge management.

Knowledge is a strategic resource and most valuable. organizations has a lot of knowledge, the need to manage knowledge. Explicit management of knowledge and processes related to knowledge The (knowledge process), such as knowledge creation / discovery, knowledge capture, knowledge sharing, and knowledge application is done through knowledge management (KM). Through KM, organizations can meet the learning needs Long term, increase the effectiveness of the use of knowledge, as well as reduce the possibility of loss of knowledge when someone leaves the organization.

Definition of E-Mobile

Referring to these definitions then, mobile learning is a learning model the use of information technology and communications. On the concept of learning The mobile learning brings the benefits of the
availability of teaching materials that can be accessed at any time and visualization of interesting material. It is important to note that any suitable teaching materials utilize mobile learning.

Stephen WisnuWijaya (2006) explains that the teaching materials are not suitable adopting the concept of mobile learning include: material that is hands on, skills as a dentist, the art of music, especially writing songs, interview skills, team work as well as marketing materials that require disclosure expressions such as dance. Consider the things mentioned above, the application better mobile learning in higher education.

2. Literature Review

Knowledge Management

Knowledge Management is an attempt to improve knowledge useful in organizations, among them nurture a culture of communication between personnel, provide opportunities for learning, and promoting the sharing of knowledge. Where the business is going to create and sustain an increase in the value of the core business competencies by leveraging existing information technology. This is excerpted from the opinions McInerney as follows:

"Knowledge Management (KM) is an effort to increase of useful knowledge within the organization. Ways to do this include encouraging communication, offering opportunities to learn, and promoting the sharing of knowledge Appropriate artifacts. “[3]

Knowledge Conversion

Nonaka and Takeuchi argued that the fundamental reason why Japanese companies successful, because they their skills and experience are in the creation of organizational knowledge. The creation of knowledge is achieved through the introduction synergetic relationship between tacit and explicit knowledge [4]. Ikujiro Nonaka and Hirotaka Takeuchi in 1991 and 1995, distinguishing between tacit knowledge and explicit knowledge, and knowledge conversion model split into 4 ways following:

a. Explicit to tacit knowledge; called externalization process.
b. Tacit knowledge to tacit knowledge; Socialization process called.
c. Explicit knowledge to explicit knowledge; called Combination process.
d. Tacit knowledge to explicit knowledge; called Interlization process.

3. Method

System development method will be used in this thesis is 10-step method of knowledge management roadmap drawn up by AmritTiwana. 10-step knowledge management roadmap structured into four phases as follows: [5]

1. Evaluation of infrastructure
2. Analysis, design and development of KMS
3. System deployment
4. Evaluation

This paper uses a descriptive method presents a summary of results observation of the results of the analysis to handle difficult students in language learning java programming, java teaching techniques for teachers and interview form questionnaire. Data collection methods used in this study through some steps involved in several activities, among others:

1. Conducting observations in order to obtain a quantitative measurement of the interference and response handling.
2. stages in forming a questionnaire.
3. Then do a conclusion reached statistical significance of results achieved.
4. And in the final stages of conclusion reached statistical significance komformatif based on interviews that do not directly provide the data to the collector data. Research tools that are used to conduct research
is the questionnaire taken under the guidance framework based SECI model, then KMD Bukowitch measured using a model to test the readiness of the application. Statement given a guide of KMS-based SECI models which contains a set of guidelines designed to measure the degree of readiness system and test systems in applications that use the KMS Software Quality Assurance (SQA).

4. Results and Discussion

There are some things that need attention in the process get in supporting KM implementation.

a) Individuals in the organization have the necessary tools to get and utilize the necessary information,

b) Need for a new role in the organization to support the users information that is Knowledge Manager and Knowledge Analyst.

Knowledge Manager bridge to communicate with the parties set of applications, especially for support in implementation implementation of Knowledge Management (KM). A Knowledge Manager has two kind of responsibility, the first matters of an administrative nature and both affairs the specific content. For matters of administrative or ordinary said as knowledge coordinator, Bukowitz provide guidance duties as follows:

a) Preparing the catalog of the contents of the company's knowledge repository and needed by the user community,

b) Maintain active time of a limited period of validity of the information,

c) Supervise the accuracy of the profile members of each community,

d) Provide access for specific requests special requests,

e) To lead new users to take advantage of existing technology,

f) Provide responses to questions from members of the community to the contents knowledge repository.

As for who is organizing the contents of a knowledge repository, Bukowitz reverence his duties as follows:

a) Facilitate online discussions,

b) Collecting materials useful information from internal sources and externally,

c) Directing the community members to obtain information from sources quality,

d) Establishing a good relationship with resources such as experts or specialists and also with the user community. In the world of the existence of a Knowledge management KM analyst who have expertise in an area is important. Because de facto credibility of the information to be valuable when it comes from an expert field, and indirectly narrow the selection of information towards selection best. In the case of this system readiness test, administrator and editor application can be a good alternative to act as knowledge analyst, because they can approving Those materials were included in the KMS application.

Activities Use in Knowledge Management (KM), Activity Knowledge Management (KM) Use pertaining to attempt how organizations use their knowledge to benefit the required. Which in the survey process Use got 72.50% as at Figure 4. 5, which means it is already above the average standard conditions of an organization in implementing Knowledge Management (KM). Bukowitz provide some principles in supporting the utilization of knowledge repository, particularly in supporting the goals of the organization:

a. Starting from the scope of work.

The main direction of the implementation of Knowledge Management (KM) is the integration with the way people think about the information they need to support work and how the work is done. Of the purposes of the application Knowledge Management (KM) in the department of informatics techniques, improve satisfaction services to faculty and students, who need attention is prevent the delivery of content is not the same and students are not confused about the material.

b. More emphasis on quality content rather than quantity With emphasis on quality will save the
user time in searching for the knowledge he needed. Here, the role of knowledge manager to ensure that only good quality that goes into knowledge repository.

c. Always updated

This is to ensure that the content is always the actual repository knowledge with the needs and current conditions, so that knowledge will be truly helpful.

d. training

The purpose of the training is to make people understand how the system Knowledge Management (KM) can assist them in doing their work with these efforts are expected users can find it easily and comfortable in using it as a tool to support the work they.

Activities Learn in Knowledge Management (KM). Learn KM Activities related to efforts to create a knowledge inherent in each individual into organizational knowledge that can be utilized for common interest. Activities learn also support the ability to repair the performance of Information Technology Services in the future. That is clearly allocating the opportunity to understand how the actions or ways of working affect the results of the work done today. The realization of the knowledge lesson produced can be learned. KMS application in the survey process Learn scored 70,63% of the survey as in figure 4. 6, which means it has more than average conditions of an organization in implementing Knowledge Management (KM). This is something that must be taken to ensure the organization can help provide an environment that accepts a wide variety of learning styles and also facilitates the experience of the learning process. The steps you need to get Learn attention in the process to support the implementation of Knowledge Management (KM) is to reflect the working mechanism of Knowledge Management (KM) to a work habits, develop a culture of learning by doing and get benefit from mistakes, failures and differences of opinion in addressing the problem.

With the support of these organizations is expected to help to facilitate individuals to gain knowledge which will then belifted into organizational knowledge that can be used to improve the performance of activities that will come. Activities Contribute in Knowledge Management (KM). Contribute activities closely related to technology, where technology allows the exchange of information and knowledge more widely, and also provides the opportunity for organizations to focus on things such as knowledge leveraging and knowledge reuse. KMS application in the survey process Contribute got 70,63% of the results survey as in Figure 4. 6, which means it has more than average conditions of organizations implementing Knowledge Management (KM). The problem faced is the process takes time and value Contribute against individuals and the group is unclear, thus making the process Contribute have a low priority among the group members. Of these conditions create a need to improve efficiency and innovation the workmanship of upcoming activities that are based on the willingness to work together and share ideas. To support these objectives faculty and students BINUS can create a culture to contribute and support the contributions through regulation and structuring of supporting organizations such as the already mentioned in the process get. Especially with regard to the obstacles in sharing knowledge, to Bukowitz eliminate it proposes to implement a reward system. This system is intended to draw everyone to contribute in knowledge-sharing activities. In connection with this system needs to be aware that the quality still take precedence over quantity, as this allows people racing to share knowledge but lacking in quality. This research has implications for the three (3) main aspects, namely: system aspects, aspects managerial, and advanced research aspects.

a. aspect Systems

1. Ease of use apps can Knowledge Management System enhanced by modifying the design / design and navigation controls so that more and more users.

2. Load speed data provided in the application Knowledge management System can be improved, can be a way of optimization of SQL (Structured Query Language) and / or cut / negate the attributes which if considered is not required so that the speed of the data load can be increased.

3. Customise the app Knowledge management system can be improved by adding / changing the application so that the needs of each user specifically can be improved.
b. Managerial aspects

1. Number assigned editor should be added, this assignment can be Lecturer utilize deemed competent in the field of Computer Science. Editor can also be recruited from other fields lecturer with the record still and relationships, knowledge and competence in the activities of the thesis that insight / knowledge of java material can be improved and expanded.

2. The university can do notifications, dissemination of information intensive, or even a workshop regarding the availability or procedures for the use Knowledge Management System application, so that users become accustomed using System Knowledge management applications significantly.

c. Aspects of Advanced Research

1. In a subsequent study expected applications Knowledge management System can be applied in a variety of platforms, not just Android, but Also in the smartphone or other mobile phone, or it can even be a portal web or desktop applications.

5. Conclusions

Generally, this research has been in accordance with the expected goals, namely implement KMS (Knowledge Management System) based SECI model in format mobile e- program informatics engineering studied UNINDRA. Based on problem definition and objectives described in this study, then associated with the research findings and discussion, it is outline some conclusions can be made as follows:

1. Based on the readiness test system using KMD (Knowledge Management Diagnostic) model whereby prototype KMS Bukowitch measured by GET, USE, LEARN and CONTRIBUTE, then the result of measurement on the results of prototype application readiness earned an average of 71.18%, which is already above average.

2. Based on the test system using the SQA (Software Quality Assurance), where system was measured using eight pieces of the criteria and the results obtained after 8 respondents surveyed experts it can score the resulting average is 81.19 , While the optimal value for a standards-compliant software quality based on test SQA is 80, thus KMS-based applications SECI models already meet the quality standards of the SQA. To make the results of this modeling helpful for its users, namely the lecturers and student, then it must be followed by a more in-depth study on Knowledge Management in order to further perfect study work continued.

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Reference