

Knowledge Management System Model for Higher Education to Increase Knowledge Stakeholders

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Abstract—Higher Education is an educational institution that provides quality services for students according to industry needs. The diversity of faculties in higher education is an effort to meet all the professional needs needed by the industry. The complexity of the learning process and management in higher education requires knowledge that is always updated in order to improve the performance of higher education by increasing the knowledge of stakeholders. Problems arise when higher education does not have a system that can manage the required knowledge, which can hinder the performance of higher education. The purpose of this research is to increase stakeholder knowledge through higher education by maximizing the knowledge possessed by stakeholders. The research method uses a qualitative approach by studying previous research on knowledge management models and knowledge in higher education. The result of the research is a knowledge management system model for higher education to increase stakeholder knowledge.

Keywords—Knowledge Management System, Higher Education, Increase Stakeholder Knowledge

INTRODUCTION

Higher education can take the shape of an academy, polytechnic, high school, research center, or university [1]. Universities are required to coordinate education, research, and community service activities [2]. Institutions of higher education can administer educational, expert, and/or vocational schools. Academic, professional, and vocational degrees are only utilized by college grads of higher education institutions that are authorized to grant such degrees [3].

College is an elective option for completion of formal education. Universities, colleges, yeshivas, classical pianists, and technology institutes provide most of the education [4]. In higher education, students are most likely as students, while instructors are known as lecturers. Academic institutions are split into two categories based on ownership: state universities and private universities.

A knowledge management system is a type of information technology system that stores and retrieves information to improve process comprehension, collaboration, and alignment [5][6][7]. Knowledge management systems can exist within an organization or team, but they can also be used to centralize your user and customer knowledge base [8][9][10].

One of the problems related to knowledge in higher education is that higher education does not have a system that manages its knowledge [11][12], which has an impact on the low knowledge of higher education stakeholders such as leaders, employees, lecturers, & other related parties [13][14].

So the purpose of this research is to help increase the knowledge of higher education stakeholders by maximizing the potential for knowledge from internal and external higher education institutions. The research method uses a quantitative approach by conducting a literature review on research related to knowledge management and knowledge in tertiary institutions. The result of the research is a higher education knowledge management system model to increase the knowledge of higher education stakeholders.

LITERATURE REVIEW

A. Knowledge Management System.

Knowledge management systems are a specific kind of information technology (IT) that are designed to store and retrieve knowledge for the purpose of improving process comprehension, collaboration, and alignment [15][16][17]. Knowledge management systems (KMS) can be used both internally and externally to consolidate your organization's or team's body of knowledge for the benefit of your users and customers [18][19][20]. Knowledge management include the processes of gathering information, transforming it into useful knowledge, disseminating that knowledge efficiently, and discarding it when no longer needed [21][22][23].

Knowledge management relies heavily on three elements: human beings, processes, and technology. A company's "people" are its "knowledge workers," "system administrators," and "knowledge workers," respectively [24][25][26]. The spread of information is facilitated by sharing activities. Secondly, the process itself. Aligning knowledge management's principles, strategies, practices, and processes is crucial to the success of the initiative. as a final point, we have technological advancements. Media knowledge management systems like technology necessitate the oversight of knowledgeable individuals. Communication, content management, and collaboration tools are all crucial during the implementation phase. The goal is to facilitate the gathering, sharing, and application of information. Technology's supporting role in motivating workers to get their work done is crucial.

To maintain growth and avoid being left in the dust by technological advances, businesses require access to expert knowledge. And this information is used to overcome all obstacles that may appear. One of the main advantages of a knowledge management system is the amount of money and time it can help you save [27]. There is no difficulty in adapting already existing knowledge sources for use in other areas of a company's operations. This is the most efficient way to accomplish the goal with the least amount of time and money spent. The second advantage is the increase in available knowledge [28]. Knowledge sources are easily accessible to staff members. The result is that as knowledge utilization rises, so too will competence. Increased flexibility is a third advantage. If the company can successfully adapt to new conditions, it will be in a stronger position to weather any future economic storms. There is no need to train new employees because the company already has the information they need. An additional perk is that productivity will rise because of the ability to apply previously acquired knowledge to the production of new products. Figure 1 show the component of Knowledge Management System include people, process, and technology.

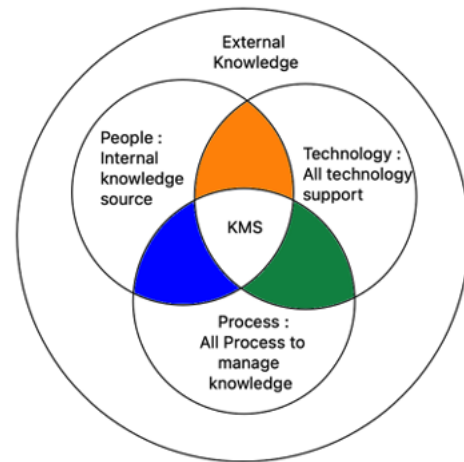


Figure 1 Component Of Knowledge Management System (Source By Author)

B. Knowledge Management in School.

Figure 2 describes the KM model for schools, where this model describes the model components vertically by dividing into 3 parts, namely data, information, and knowledge [29]. The model also divides components into three horizontal sections: management and organization, teaching and learning, student support, and student achievement.

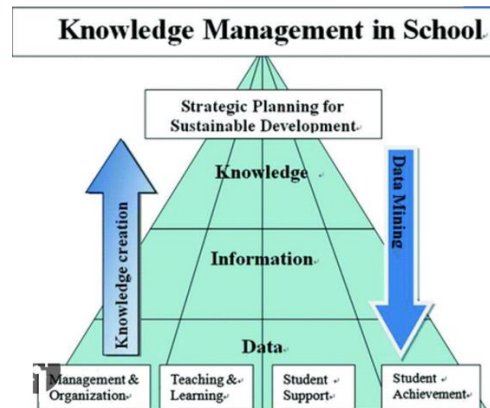


FIGURE 2 Knowledge Management in School (Cheng 2015)

C. School Knowledge Management Framework

Figure 3 describes the school knowledge management framework [30]. This model is divided into 2 main parts, the first of which is related to knowledge processes such as knowledge acquisition, knowledge accumulation, knowledge sharing, knowledge diffusion, and knowledge innovation. The second part of the model describes parts of the institution such as administrative leadership, organizational culture, information technology, and performance management.

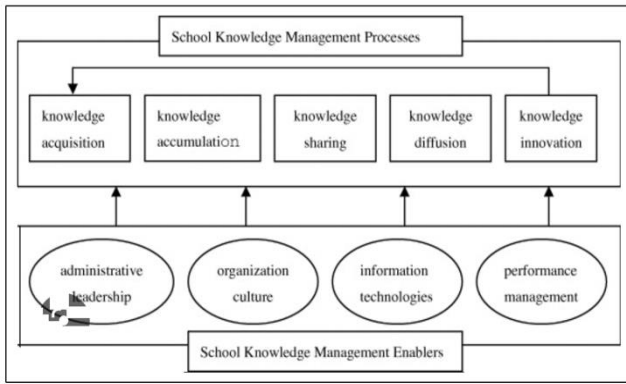


FIGURE 3 School Knowledge Management Framework (Zhao 2010)

RESEARCH METHOD

The complexity of the process in higher education has the potential to require and generate knowledge. However, higher education cannot optimize the potential of knowledge to improve stakeholder performance.

After finding this problem, the research was continued by studying the literature review on the knowledge management model as an initial step in building a KMS model for higher education.

Research also studies the unique characteristics of higher education as a model component that will be used in the proposed final model. The research also studied some previous research on knowledge management for schools. The final stage of research is to build a model of knowledge management system for higher education.

RESULT AND DISCUSSION

Figure 4 shows the first proposed model. The first part of the model describes stakeholders from higher education, such as leaders, faculty, administration, and trustees, transforming knowledge through the stages of socialization, externalization, internalization, and combination [31][32]. All stakeholders in higher education can carry out the knowledge transformation process through socialization, externalization, internalization, and combination approaches. The transformation process is applied to both tacit and explicit knowledge.

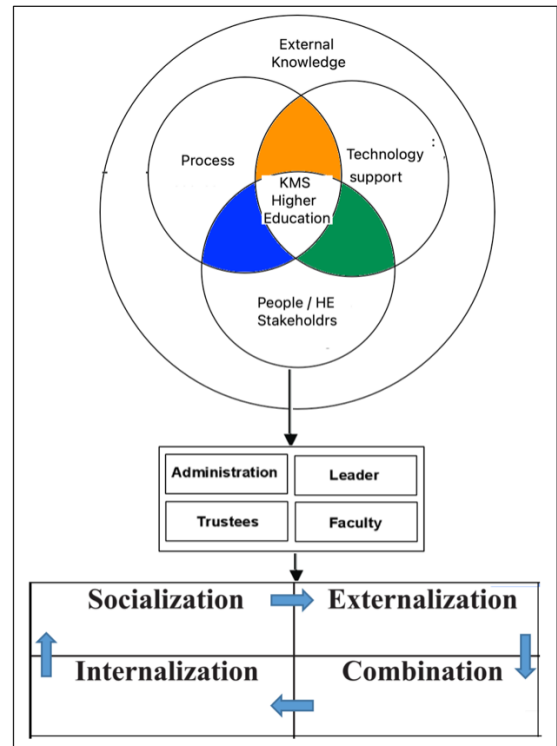


FIGURE 4 People/Higher Education Stakeholder

Figure 5 shows the second proposed model. This model describes the process of knowledge acquisition in higher education.

The first stage of this process is to capture and store knowledge. After the knowledge is stored, it will pass through the second stage, namely, sharing the knowledge with all higher education stakeholders. Another part of knowledge in higher education is solving and recommending knowledge using artificial intelligence and existing knowledge.

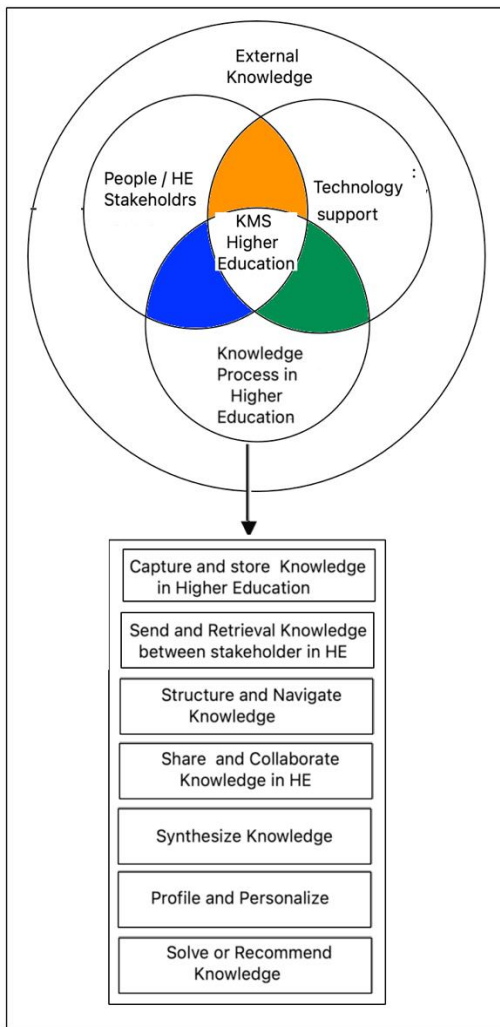


FIGURE 5 Knowledge Process in Higher Education (Source by Author)

Figure 6 shows the third proposed model. This model describes technological support that can be used to support knowledge processes in higher education. The first example is electronic document management, which can be used to capture and store knowledge. Structure and navigate can use technology websites; synthesize can use data mining or business intelligence.

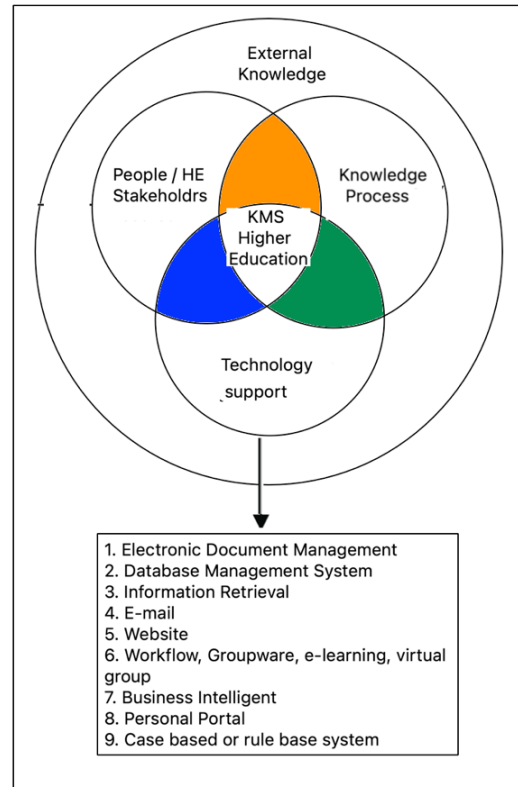


FIGURE 6 Technology Support for KMS in Higher Education (Created by Author)

Figure 7 describes the knowledge acquisition process of higher education with a problem-based approach. This approach focuses on problems that hinder the performance of higher education and can be applied to all parts of higher education. After the problem is identified, the next step is to create the knowledge concept needed as a solution to the existing problem. After the concept of knowledge is built, it is continued by creating a knowledge structure and rules of knowledge. The final stage of this model is to validate knowledge.

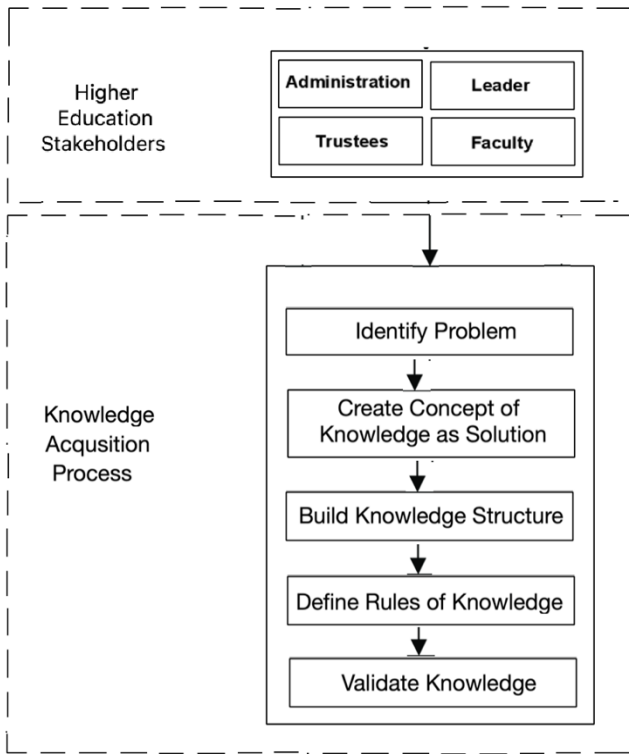


FIGURE 7 Knowledge Acquisition Process (Created by Author)

CONCLUSION

Higher education as an educational institution has an important role in producing the qualified workforce needed by the industry, so the performance of higher education greatly influences the performance of the industry as a whole. This important role must be supported by reliable knowledge that continues to change and increase according to industry needs. With the knowledge management model for higher education, it is hoped that higher education can manage internal and external knowledge to increase stakeholder knowledge.

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