Knowledge Management in Improving the College of Health's Performance

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Abstract. Colleges in the field of health have begun to develop knowledge management strategies. They begin to have a good understanding of how to manage and optimize knowledge assets. This study explored various factors that help or hinder competitive advantage through knowledge management in health colleges. This study employed a quantitative methodology with a questionnaire-based survey approach to stakeholders from 4 colleges of health. The concept of knowledge management and performance in the academic environment is explored to improve the performance of higher education institutions in the future. If knowledge management is implemented optimally, the performance of universities will be good, and the competitive advantage of health colleges will be optimal. The results of this study will be the basis for developing knowledge-creation strategies for improving organizational performance.

Keywords: College Performance · Excellence competitive · College Performance · Excellence competitive

1 Introduction

All things included in the concept of "Intellectual Capital" aim to create and develop a knowledge management system as an organizational strategy to form an internal knowledge culture and create a transformation mechanism toward corporate prosperity [1].

It can be seen that the strength lies in globalizing individuals, and at this time of globalization, it involves all people from various nations and countries. The impact of globalization that brings multiple opportunities and threats can be optimally overcome by serving knowledge-based solutions.

The challenge that puts forward the importance of knowledge as the main driver of the growth of a nation has never been experienced by humans before. Competitiveness is no longer dependent on the wealth of natural resources and cheap labor but increasingly dependent on the knowledge possessed and controlled by a nation. Such knowledge can facilitate a country in utilizing and processing natural resources before being thrown into the global market. Resources available to humans will only be able to support growth if accompanied by adequate mastery of knowledge. Without the proper and adequate

mastery of knowledge, a large population will only increase the burden on the state to achieve and maintain a decent level of welfare.

There are difficulties in finding Knowledge Management research in vocational colleges, especially Health Polytechnics. Higher Education (PT) is a knowledge-intensive environment that plays a central role in creating knowledge through research and disseminating knowledge through publications. Colleges also play an essential role in knowledge transfer through collaboration with other businesses and organizations to support social and cultural innovation and business and support learning through their teaching and research training programs. Therefore, it may be reasonable to expect universities to adopt a proactive approach to knowledge management development strategies. Colleges will have a well-honed understanding of managing and optimizing their knowledge assets' value [2].

However, the approach adopted by universities is inconsistent [3]. Research on knowledge management has often been carried out in a commercial environment and has begun to develop in the public organization sector [4, 5]. Nevertheless, research on knowledge management in universities is very limited.

In 2000, Rowley asked, "Is higher education ready to implement knowledge management?" some research has been done on knowledge management in universities which reflects that the culture at universities is different from other work environments, including how knowledge can be managed and shared. Experts recognize the importance of accommodating organizational climate and culture in designing knowledge management strategies, especially to promote and facilitate the dissemination of knowledge [6, 7].

Liebowitz [8] has shown that knowledge management initiation must accommodate the existing culture. Previous studies have discussed its relation to individualistic traits [9], "idiosyncratic and complex" academic traits [10], and loyalty to organizational disciplines [11]. An empirical study that discusses knowledge share and the factors that may influence it is needed. Therefore, this study seeks to contribute to understanding knowledge sharing in universities through investigation, academic intention, and the factors that influence it.

In recent years, there has been a growing interest in intellectual capital and knowledge management [12], especially concerning competitive advantage for organizations [13]. Currently, there is a growing understanding of knowledge management in the university context, although it is still limited in number [2].

The application of knowledge in universities is very important because universities, as the center of knowledge, transfer individual knowledge as intangible assets into organizational assets [14]. Therefore, this study aimed to determine the application of knowledge management at health colleges of the Indonesian Ministry of Health in improving organizational performance.

2   Methods

This research focuses on applying knowledge management in various positions in the academic community and employees who work in 4 (four) health colleges with a total of 110 respondents. They consist of deputy directors, heads of centers, heads of departments, heads of study programs, lecturers, and administrative staff, who are considered as people who contribute to knowledge management.

A questionnaire survey through the g-form was conducted to collect an overview of the implementation and experiences of managers and lecturers after obtaining permission from the colleges' leaders.

The colleges were selected based on their position in first-class classification according to the Directorate General of Health Workers, Ministry of Health of the Republic of Indonesia. After obtaining permission, questionnaires were distributed to respondents from the study programs level. Respondents were asked to be anonymous and include only the name of the college and the current position. The research results agreed upon after being carried out will be submitted to the respective colleges.

The questions in the questionnaire were developed based on the results of a literature study and refer to the results of existing research conducted by Fullwood and Rowley [15] with several adjustments. The survey results were then analyzed through statistical analysis with a Likert scale used to collect data on implementation and knowledge management experience at each college.

3   Result and Discussion

In this section, the results of the analysis of the questionnaire based on descriptive statistical tests are presented. The demographic characteristics of the respondents will be presented at the beginning. Then, the types of knowledge characteristics that exist in the Health colleges of the Ministry of Health will be discussed, followed by an explanation of the implementation of knowledge management in Health colleges of the Ministry of Health.

3.1   Demographic Characteristics

Respondents' demographic data shown in Table 1.

3.2   Types of Knowledge in the Health Colleges of the Ministry of Health

This section explains how much knowledge Health Colleges of the Ministry of Health has, which includes: information and research results, sources of theoretical and practical studies, guidelines and standard operating procedures, daily social news, and the work of general administrators and academics. Each type of knowledge has an answer that varies between "1 = a little" and "7 = a lot". The composition of the proportion of knowledge possessed by Health Colleges of the Ministry of Health is relatively even. Guidelines and Standard Operating Procedures are types of knowledge that are slightly more common than others and are followed by theoretical and practical learning sources of knowledge.

The types of knowledge shown in Table 2.

Understanding Knowledge Management
Respondents were asked to fill out a questionnaire that described the extent of understanding of the concept and implementation of knowledge management. Understanding includes knowledge-sharing intentions, knowledge-sharing attitudes, expected rewards,

Table 1. Respondents' Demographic Data.

Demographics Characteristics		n	%
Respondent's Position	Deputy Director	1	0.9
	Head of Department	4	3.6
	Head of Study Program	20	18.2
	Head of Subdivision	2	1.8
	Unit Head	1	0.9
	Lecturer	63	57.3
	Education Staff	19	17.3
Sex	Man	30	27.3
	Woman	80	72.7
Age (years)	26–35	10	9.1
	36–45	22	20.0
	46–55	48	43.6
	56–65	30	27.3
Department/Study Program	Acupuncture	2	1.8
	Pharmacy and Food Analysis	1	0.9
	Directorate	11	10.0
	Pharmacy	1	,9
	Physiotherapy	4	3.6
	Nutrition	5	4.5
	Midwifery	26	23.6
	Nursing	38	34.5
	Dental Health	7	6.4
	Environmental Health	4	3.6
	Occupation Therapy	1	0.9
	Orthotic Prosthetics	1	0.9
	Professional Dietitian	1	0.9
	Health Promotion	2	1.8
	Talk Therapy	4	3.6
	TLM	2	1.8
Length of Work in Sections/Departments/Study Programs (years)	0–5	29	26.4
	6–10	16	14.5

Table 1. (*continued*)

Demographics Characteristics		n	%
	11–15	11	10.0
	16–20	0	0.0
	21–25	30	27.3
	Over 25	24	21.8
Length of Work at the institution (years)	0–5	10	9.1
	6–10	14	12.7
	11–15	9	8.2
	16–20	0	.0
	21–25	47	42.7
	Over 25	30	27.3

Table 2. Types of Knowledge.

Type of Knowledge	1	2	3	4	5	6	7	Total (%)
Research Result Information and Activities	0.9	1.8	11.8	14.5	21.8	36.4	12.7	100.0
Theoretical and practical learning resources	0.9	1.8	12.7	12.7	20.9	35.5	15.5	100.0
Guidelines and Standards Operating Procedure	0.9	3.6	10.9	12.7	16.4	41.8	13.6	100.0
Daily social news and work	0.9	1.8	17.3	11.8	26.4	29.1	12.7	100.0

leadership related to knowledge management, organizational Technology Structure, and information platforms used in knowledge management at Health Colleges of the Ministry of Health. Respondents' answers were between "1 = disagree" and "7 = agree."

Table 3 show intentions to share knowledge.

All employees at Health College have a great intention to share knowledge. Moreover, it will help the institution's development, whether requested or not. Only a small part of the respondents intend to share knowledge only if asked.

Attitude to share knowledge shown in Table 4.

Table 4 shows that most (82.7%) of respondents disagree with not liking to share knowledge. In other words, they agree to share their knowledge with others. Respondents also mostly agree with their view that sharing knowledge is a valuable experience and a

Table 3. Intentions to share knowledge.

Intention to share Knowledge	1	2	3	4	5	6	7	Total (%)
I do not intend to share knowledge with other employees at work	69.1	13.6	5.5	1.8	2.7	3.6	3.6	100.0
I intend to share knowledge with other employees at work if requested	4.5 _	3.6	8.2	15.5	7.3	18.2	42.7	100.0
I intend to reduce sharing knowledge with other employees	63.3	19.3	7.3	1.8	2.8	4.6	0.9	100.0
I intend to share my knowledge with colleagues everywhere if it helps the Health Colleges	69.1	13.6	3.7	12.8	8.3	14.7	56.9	100.0

Table 4. Attitude to Share Knowledge.

Attitude to share Knowledge	1	2	3	4	5	6	7	Total (%)
I do not particularly appreciate sharing knowledge.	82.7	8.2	7.3	0.9	0.9	0.0	0.0	100.0
Sharing my knowledge with other staff is a valuable experience.	0.0	0.0	3.6	13.6	4.5	16.4	61.8	100.0
Sharing my knowledge with other staff is a wise thing to do	0.0	1.8	2.7	13.6	3.6	20.0	58.2	100.0
I share knowledge appropriately and effectively.	0.0	0.9	7.3	9.2	11.0	22.0	49.5	100.0

wise thing. While a small proportion still feels that sharing knowledge is not appropriate and effective (8.3%).

The significant positive relationship between self-efficacy, self-esteem, and challenge with librarian attitudes towards knowledge management was considered. On the other hand, the study's results prove that attitudes toward knowledge management have no

relationship with the experience of librarians. In addition, no significant differences by gender and sector were observed in the attitudes of librarians toward knowledge management [16].

Technology platforms shown in Table 5.

The institution prepares supporting information technology for knowledge management (74.5%), and information technology can connect one employee to another. This will support the knowledge exchange process between employees. From the employee's point of view, it is interesting that those in the training division agree and others disagree with it. Technologies that support dialogue processes, such as video conferencing and text messaging, facilitate the distribution of tacit knowledge. The tacit knowledge exchange cannot be done by e-mail [17].

Discussion

The study found a description of the existing knowledge in Health Colleges of the Ministry of Health that was sufficient and could still be explored further. Knowledge Management differs for every manager, department/study program, lecturer, or education staff. Knowledge Management implementation has excellent potential for competitive advantage for Health Colleges of the Ministry of Health. This is supported by the qualifications of prospective lecturers in large numbers.

Knowledge of information and research is more often informed than job information procedures. Intentions and attitudes influence the distribution of knowledge.

The work environment can affect knowledge management. The appreciation for individuals who share knowledge is very influential on the results of disseminating

Table 5. Technology Platforms.

Attitude to share Knowledge	1	2	3	4	5	6	7	Total (%)
My organization does not support IT development for knowledge management.	42.7	31.8	8.2	8.2	6.4	2.7	0.0	100.0
Technology connects Health Colleges' employees with other relevant agencies/institutions.	0.0	2.7	10.0	10.0	18.2	26.4	32.7	100.0
It is difficult for me to use information systems technology without additional training.	5.5	15.5	15.5	18.2	21.8	10.9	12.7	100.0
Whenever new information technology is implemented, training is immediately conducted.	1.8	4.5	24.5	9.1	22.7	23.6	13.6	100.0
This college's information system technology and software are designed to make it easier for employees.	0.0	5.5	5.5	15.6	20.2	28.4	24.8	100.0

knowledge. The higher the appreciation, the more efforts to spread knowledge will increase. A supportive and conducive organizational structure will increase knowledge management implementation efforts.

Knowledge processes are interrelated and mutually reinforcing activities, and employees' perceptions of various individual, group, and organizational factors support employees' values and beliefs about knowledge processes and help shape the organization's Knowledge culture [18].

Organizational knowledge management capacity has been shown to impact organizational performance positively, so strategic management is needed [19]. Information technology and systems play an essential role in increasing organizational knowledge management capacity and the success of these initiatives [20]. However, without an organization that supports a knowledge management culture, this initiative will not succeed [21]. If the organizational culture does not encourage employees to have a shared commitment to knowledge management, knowledge technology will fail, no matter how big the technology infrastructure is, [22, 23].

Alavi & Leidner [24] proposed one of the most cited frameworks consisting of four processes: creation, storage enhancement, transfer, and application knowledge. The processes that are often included in the definition of knowledge management are the creation, access, dissemination, and dissemination of knowledge [25]; creation, maintenance, renewal, organization, transfer, and realization of knowledge [26]; identification, capture, storage, sharing, application and sale of knowledge [27]; generation, access, facilitation, integration, embedding, application, transfer, and protection of knowledge [28]; and creation, acquisition, documentation, storage, electronic transfer, sharing (face to face), utilization and reuse of knowledge [29].

4   Conclusion

The study results indicate the involvement of campus leaders, department heads, heads of study programs and lecturers, and education staff in sharing various types of knowledge at Health Colleges of the Ministry of Health. Some data indicate the existence of a solid organizational culture in sharing knowledge and a strong intention of academics to share. Thus, the Health Colleges of the Ministry of Health have the potential to generate knowledge and share knowledge among employees and even outside the organization.

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