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Knowledge Management Strategy to Improve Lecturer Research Performance at College of Economics

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Abstract: Knowledge management is one of the main methods of a higher education institution to develop knowledge-based innovation. During the COVID-19 Pandemic, research performance in the social and economic fields in Indonesia decreased by 433%. One of the Colleges of Economics (STIE) in Tangerang is currently making changes to improve the research performance of lecturers who have various constraints due to the competence of existing lecturers, the current wage strategy, and low motivation. This study aims to find out how knowledge management processes consisting of knowledge discovery, knowledge capture, knowledge sharing, and knowledge application are used for lecturers' research; the role of the knowledge management component consisting of people, process, and technology in each process; constraints in the knowledge management process; as well as knowledge management strategies are the things that can be implemented by the College of Economics. The research method used is qualitative research using the NVivo software analysis tool for Windows. The results of this study are in the form of a four-stage strategy consisting of the formulation, implementation, monitoring, and evaluation stages that can be implemented by the College of Economics to support efforts to improve lecturer research performance. The formulation stage includes guaranteeing the availability and clarity of policies, road maps and research SOPs, as well as a reward & punishment system. The implementation stage is to provide a tool in the form of a data repository for lecturers to carry out knowledge management processes, and ensure that leaders set an example by playing an active role in using the tool. The monitoring and evaluation phase is used to ensure that ongoing implementation does not deviate from the plan, and to ensure that the strategies provided are useful for improving lecturer research.

Keywords: Knowledge Management, College of Economics, Research Performance.

INTRODUCTION

Knowledge management is one of the main assets of an organization to gain a competitive advantage (Zyl et al., 2022). Knowledge management (KM) is used by businesses

to complement Total Quality Management (TQM) (Marchiori & Mendes, 2020), reduce bottlenecks in company performance (Subanidja & Hadiwidjojo, 2017), assist knowledge-based organizations in achieving sustainable competitive advantage (Anatan et al. al., 2021), Johanesburg City library and information services (Nkomo et al., 2021), general administration (Špaček & Gatarik, 2017), Islamic banking (Rusydiana et al., 2022), nurse services in hospitals (Harihayati & Widianti, 2019), preparedness for earthquakes in East Lombok (Kusumastuti et al., 2021), to maintaining the quality of family company products (Koentjoro & Gunawan, 2020). One of the institutions engaged in the field of knowledge is higher education with the main task of teaching, research, and community service, but in fact many educational institutions have not maximized knowledge management to manage institutional and personal knowledge to increase the competitive advantage of the organization as a whole (Bess and Dee; Kezar in Dee & Leišytė, 2016), a similar thing was also found by Mahdi et al (2019).
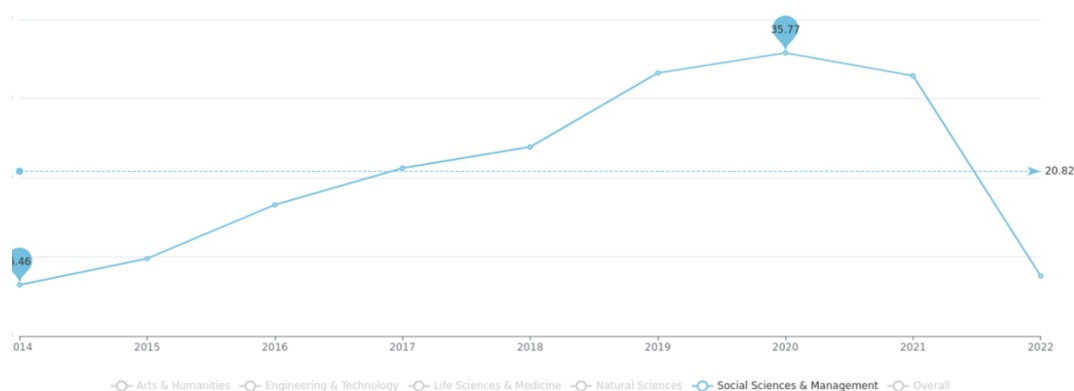
Source: https://sinta.kemdikbud.go.id/wcu/research_output2
Figure 1. Research output per subject per lecturer by year in social science and management (2014-2022)

Figure 1 shows that the research output per subject per lecturer for social sciences and management has decreased in 2021 along with the COVID-19 Pandemic wave in Indonesia. The same holds true for overall research outputs from other fields such as arts and humanities, engineering and technology, life sciences and medicine, natural sciences, and social sciences and management.

The decline in research output at SINTA is an indicator of the declining performance of higher education institutions in Indonesia, especially in the field of research. One of the efforts that universities can make to improve performance is to focus organizational resources on knowledge management processes to assist lecturers in improving research performance so that it can add to knowledge-based innovation (Rehman et al., 2021).

According to Wilson & Campbell (2020) knowledge management is one of the basics in the quality assurance process of a company in its role in managing organizational knowledge. According to Dalkir in Husain & Ermine (2021) knowledge management is a systematic coordination that is deliberately carried out by humans, technology, processes, and organizational structures within an organization to add value through reuse and innovation. This coordination is achieved through the creation, sharing, and application of knowledge as well as through re-entering valuable learning and best practices into organizational memory to assist continuous organizational learning.

LITERATURE REVIEW
Knowledge Management
Knowledge management was originally defined as the process of applying a systematic approach to recording, structuring, managing, and disseminating knowledge throughout the

organization to work faster, reuse best practices, and reduce rework costs between projects (Dalkir, 2011). According to Skyrme in Jashapara (2012) knowledge management is the systematic and explicit management of vital knowledge and related processes in creating, collecting, organizing, diffusing, using and utilizing in the pursuit of organizational objectives. In other literature, knowledge management is defined as a process that makes organizational knowledge in the form of added value and made available to anyone who needs it within the scope of the organization to create quality products or services (Husain & Ermine, 2021).

Implementation of knowledge management requires commitment to organizational culture, information technology, employee involvement and training, leadership and commitment from senior management, learning environment and control of resources, and evaluation of professional training and teamwork (Husain & Ermine, 2021). Furthermore, according to Husain & Ermine (2021), the processes that occur in knowledge management consist of:

1) Knowledge Discovery

   Includes extracting both types of knowledge from raw data and oral communication. For this purpose, observation, interviews, surveys, data mining, scanning, etc. carried out to collect important information, to then be refined, and analyzed to be converted into useful knowledge based on context, expert views, and packaging.

2) Knowledge Capture

   Gathering explicit or tacit knowledge from entities in the organization which includes people, and documents is called knowledge capture. This process consists of externalization, namely the process of changing tacit knowledge into explicit knowledge through the process of documentation, verbalization, etc.; and internalization, namely the process of translating explicit knowledge into tacit knowledge through a process called learning by doing where documented knowledge is used to create implicit knowledge.

3) Knowledge Sharing

   Similar to the definition of library services "the right information for the right users at the right time", the process of sharing knowledge as a major component in the knowledge management process also implies "the right knowledge for the right people at the right time". This process can be influenced through communities of practice, information flows, push messages, presentations, lectures, forums, etc. The use of information technology is very helpful in implementing knowledge sharing effectively.

4) Knowledge Application

   The final process in knowledge management is diligently applying the knowledge that has been collected, recorded, and shared among the community of practice. The application of this knowledge also refers to the actualization of knowledge in helping to solve business problems and make business decisions. Recent developments in machine learning and artificial intelligence have facilitated the application of knowledge using knowledge-based software and automation tools.

Components in knowledge management consist of technology, people, and processes. According to Edwards in Tomé et al (2022) initially, knowledge management was seen as a technological problem, then a human resource problem, and finally a process problem.

Lecturers' Research

According to the National Higher Education Standards (2020), higher education institutions are required to have national education standards, research standards, and community service standards. In the same document it is also explained that the duties of lecturers are educators and scientists who change, develop, and disseminate knowledge through education, research, and community service. Research is also one of the main

performance indicators for state universities (Directorate General of Higher Education, 2020). Thus it can be concluded that research is an important component in the teaching profession so that it should be one of the main focuses in higher education activities.

The COVID-19 pandemic that has hit many countries has forced many activities to switch to online-based activities. A similar thing also happened in higher education, not only teaching and learning shifted from face-to-face activities to digital-based activities, a similar thing also happened in research (Américo et al., 2022).

RESEARCH METHODS

This research was conducted using qualitative methods with a worldview of social constructivism combined with interpretivism, which is a perspective on qualitative research. The social constructivism paradigm believes that individuals seek understanding of the world in which they live and work (Creswell & Creswell, 2018). The data collection method used consisted of observation as a participant, where the researcher was one of the employees within the scope of the research site; in-depth interviews with key informants selected by purposive sampling method in the form of top management, middle management, and permanent lecturers. In the data analysis stage, the process of collecting data, reducing data, presenting data, and drawing conclusions is carried out (Miles et al., 2014). The tool used in the data analysis phase is the Nvivo software version 12 for Windows.

In-depth interviews were conducted with five key informants consisting of the Head of STIE, Head of the Management Study Program, Head of the Accounting Study Program, Permanent Lecturer in Management, and Permanent Lecturer in Accounting as well as staff at the Institute for Research and Community Service (LPPM). The selected informants represent each level in the STIE organizational structure. As with qualitative research in general, the researcher is the main instrument, assisted by an interview protocol as a guide in conducting interviews so as not to stray too far from the initial purpose of the interview. The researcher is one of the foundation staff assigned to STIE to assist in the information technology division, thus fulfilling one of the instrument criteria mentioned by Miles et al (2014), namely having familiarity with the research site, and coming from different disciplines but there is a tendency to have bias. To test the instrument, triangulation of sources used from the results of interviews with several informants; triangulation of methods consisting of interview transcripts, public documents, and internal documents; as well as triangulation of observers consisting of researchers, supervisors, and reviewers.

RESULT AND DISCUSSION

From the profiles of the informants in Table 1, it was found that the informants had fairly good digital skills, in this case all key informants were able to operate computers, surf the internet, and use office suite applications well in their daily activities. An assessment of digital capabilities is needed to ensure that obstacles to using knowledge management supporting technology are not the main obstacles, this assessment is carried out by each informant.

Table 1. Informants' Profile

Title	Gender	Age	Digital skills	Interview Date
Head of STIE	Female	50	3.5	November 17th,2022
Head of Management Program	Female	42	4.0	November 19th, 2022
Head of Accounting Program	Female	36	3.8	November 22nd, 2022
Lecturer of Management Program	Male	39	3.5	November 18th, 2022
Lecturer of Accounting Program	Male	32	3.5	November 15th, 2022

Source: Data processed (2022)

Data collection was carried out by interviewing key informants in each section in November 2022. Audio interviews, which lasted an average of one hour, were recorded in each informant's office and then converted into interview transcripts, which in detail can be seen in the attachment. The interview transcripts of all key informants were tested for the Pearson Correlation Coefficient (PCC) level to obtain a relationship between transcripts based on word similarity. From the process in the Nvivo software, correlations were found between informants with numbers above 0.75 as shown in Table 2.

Table 2. Nilai PCC transkrip wawancara

File A	*File* B	*Pearson correlation coefficient*
Files\\kaprodi-akuntansi	Files\\kaprodi-manajemen	0.885065
Files\\ketua	Files\\kaprodi-manajemen	0.859446
Files\\kaprodi-manajemen	Files\\dosen-manajemen	0.846350
Files\\kaprodi-akuntansi	Files\\dosen-manajemen	0.841068
Files\\kaprodi-manajemen	Files\\dosen-akuntansi	0.800105
Files\\ketua	Files\\dosen-manajemen	0.797593
Files\\kaprodi-akuntansi	Files\\ketua	0.796143
Files\\kaprodi-akuntansi	Files\\dosen-akuntansi	0.792442
Files\\ketua	Files\\dosen-akuntansi	0.788724
Files\\dosen-manajemen	Files\\dosen-akuntansi	0.783330

Source: Data processed (2023)

Research Condition

To see the words that appear most often, researchers use the Word Cloud visualization feature that belongs to Nvivo. From the results of the query on the coding of the research conditions and their sub-codings, the 20 most words were found as shown in Figure 2.

Figure 2. Word Cloud of Research Condition
Source: Data processed (2023)

The current condition of research performance at STIE is still quite low plus a lack of depth because generally lecturers use student theses to be used as material for their publications. However, since November 2022, there has been an initiation from LPPM to form a group of research lecturers in the Management Study Program, and hold mini paper assignments for Accounting Study Program students who are taking the Pre-Thesis Seminar course. One informant said that research in the Management Study Program had been quite good starting from 2021, this was assessed by the informant based on the orderliness of the Management Study Program lecturers in collecting journal articles every semester.

The combination of the absence of punishment given, and the motivation of the lecturers who have other jobs outside of being permanent lecturers is thought to be the reason for lecturers who were initially recruited without a strict selection process, to neglect their research assignments. Reinforcement and fair punishment can affect employee motivation, values, decision making, problem solving, and general performance (Asadullah et al., 2019). A reward and punishment system that is balanced with employee workload can improve

employee performance (Faiqoh et al., 2022). Thus the formulation of giving rewards and enforcing punishment is the first step that needs to be taken by the Head of STIE.

All informants agreed that the determination of research success was by publishing research results. According to the Head of STIE, the publication can be done in one semester or one year depending on the initial planning. Most of the informants said that they had not seen the SOP regarding the implementation of research at STIE. This needs to be a concern so that clarity regarding the applicable rules is not confusing. Publication of research policies, as well as research directions can be made through the university's official website so that it can be easily accessed by lecturers who need it.

Informants allocated up to 25% of their time or up to two hours per day to do research-related work. For informants who were at the management level, the researcher asked about how long the lecturers allocated time to conduct research, most of the answers depended on each lecturer, and some did not even allocate time for research at all. This time allocation is closely related to the priority scale of each lecturer. For lecturers who have jobs off campus, generally research is not a priority. Based on these conditions, it is better to evaluate the composition of permanent lecturers who have offices on campus so that the number of lecturers who have jobs outside the campus is not the same or more than the number of lecturers who have offices on campus.

The most common obstacle in research is motivation, followed by access to journal articles and access to data. Motivation from senior lecturers who are not used to doing research is one of the main factors that is felt to be the cause of the lack of research performance. A similar thing was found by Arifin & Lo (2020) who found that intrinsic motivation can affect performance. The leadership factor is a variable that influences the application of knowledge management as well as organizational culture (Agustriyana & Pringgabayu, 2019). Based on this, the Head of STIE has taken a good first step in building a research culture within the College of Economics by recruiting research lecturers and placing them in LPPM.

The next step in efforts to foster a research culture is the research assistance program by LPPM for the Management Study Program. The Head of the Accounting Study Program hopes that this research assistance program can also be carried out in the Accounting Study Program. After evaluating the research assistance program, LPPM should immediately start a similar program for the Accounting Study Program in the following semester, so that in the following year the two study programs already have the seed of a research culture. Planting the seeds of this research culture needs to receive support in the form of publication funds and honorarium for the completion of publications.

In interviews regarding research constraints, answers emerged regarding the lack of compensation which was considered one of the factors that made lecturers reluctant to report their research publications for data collection. Lecturers who make publications at their own expense are reluctant to report their publications to the Head of Study Program, which is an obstacle to making Study Program Evaluation Reports for accreditation purposes. STIE has a research financing scheme, but some lecturers feel that the financing scheme is unclear. This problem can be handled by providing understanding to lecturers who have publications to report their publications to be recorded by the study program, as well as designing incentives for lecturers who report them, such as awards for outstanding lecturers where one of the criteria is the number and type of publications.

Another difficulty that is felt is the ability of lecturers to search for journal articles and access them, but this difficulty can be overcome by guiding lecturers to conduct research, and using software to open access to journal articles that are behind a pay wall. In addition to providing training to improve the competence of existing permanent lecturers, the recruitment of new lecturers also needs attention, especially by setting a minimum standard for

publication in journals that have certain criteria, or it can be in the form of a probationary period for research and publication during the first semester.

Knowledge Discovery

As researchers, all informants searched for journal articles via the internet or the library. When using the internet, there are several tools that are used such as the sci-hub website, YouTube, and Mendeley software. Apart from seeking information in the form of journal articles, the informants also received information from fellow research lecturers, webinars and training, experiments, television news, discussions, and books.

Most of the support provided by the leadership is in the form of coordination meetings, sharing information on seminars, monitoring activities, as well as providing motivation and training to lecturers. What some informants felt was lacking was clarity regarding SOPs, as well as a reward and punishment system that had not been implemented.

Not all informants have problems in carrying out the knowledge discovery process. The most common obstacle encountered when conducting research is access to journal articles. Meanwhile, for other lecturers, the visible problem is a lack of motivation, some are even constrained by their ability to use the internet. From observations, lecturers can use video conferencing applications during a pandemic to conduct teaching, meaning that when circumstances are forced, lecturers can learn and apply new skills. Thus there is a need for coercion which requires lecturers to carry out knowledge discovery in the framework of research so that they become accustomed to it. The research assistance program by LPPM is one way to force lecturers to carry out knowledge discovery by providing them with a community of practice.

Knowledge Capture

All informants made summaries of the journal articles they had obtained as the main step in the knowledge capture process. Making this summary is done by writing in a research book, or using software. Informants who feel uncomfortable staring at a computer screen will print articles that have been grouped to be marked (highlighters), this process is similar to coding in qualitative research (Jackson & Bazeley, 2019). Informants who feel comfortable staring at a computer screen use software such as Excel and Power Point to make summaries. The form of knowledge capture within the institution is by uploading meeting minutes on the institution's internal website, and recording the trainings conducted in video form. This process is in accordance with what was explained by Husain and Ermine (2021), which is an externalization process that transforms tacit knowledge into external knowledge.

The main technologies used by the informants are in the online storage, journal access, and collaboration categories. Google drive is used to store data related to ongoing research, but because STIE is not subscribed, the amount of storage is not too much. There are additional efforts that can be made by STIE, namely providing a data repository or storage media in a network that lecturers can share in conducting research.

Another interesting thing is that one of the informants used a lined folio book to make notes related to the research being carried out. The main reason given was feeling uncomfortable looking at a computer screen due to age. The method of making notes on paper is indeed the forerunner of notes on digital media, and has proven to have made many researchers capable of being productive, one of them is Zettlekasten which was popularized by Niklas Luhmann (Kadavy, 2021). Luhmann uses the Zettlekasten method which uses a small collection of papers to capture ideas and organize them into categories, using this method Luhmann produces a theory of social systems which is the mother of all projects in sociology after doing research for 30 years. In addition to social system theory, in those 30 years Luhmann also produced 58 books, hundreds of journal articles, even after he died, about

half a dozen books were published under his name in various fields (Ahrens, 2022). According to Scheper (2022), Zettelkasten is not just an information storage system, but a knowledge development system. The proposal given regarding data processing for the Accounting Study Program is the addition of human resources to carry out data processing which can be taken from students who are doing internships or participating in the Merdeka Learn Kampus Merdeka (MBKM) program, especially in the research field. The responsibility for internalizing MBKM is under the Study Program, therefore the Study Program can create an MBKM program to involve students in research activities carried out within the Study Program.

The constraints told by the informants regarding the knowledge gauge were quite varied, according to the abilities of each informant. There are informants who have problems with online storage, ability to use software, not used to reading, technical problems with computers, time and motivation, availability of software, English language skills, to excessive workload.

Problems with online storage can be overcome by creating a data repository, whereas difficulties stemming from a lack of competence can be handled by providing training in using the software, training in speed reading, and English courses for reading journal articles. The issue of excessive workload requires further attention because it can cause burnout (Dewi et al., 2021), which if left unchecked will negatively affect performance (Akca & Tepe Küçükoğlu, 2020).

Knowledge Sharing

All informants share knowledge about research with students through teaching in class. Apart from learning in class, there are several lecturers who conduct knowledge sharing in conference activities, writing books and book chapters, as well as forums in local government. Some of them do knowledge sharing with groups of research lecturers in the form of discussions, meetings, both face to face and through the WhatsApp application. According to Nguyen & Woo (2020), WhatsApp has a potential role as a means of conducting non-formal education. Students benefit from the WhatsApp group for sharing knowledge in order to understand course material and work on coursework (Prihantoro et al., 2022). However, there are drawbacks in using WhatsApp as the main tool for sharing knowledge, including making it easier to cheat, old messages are buried with new messages, the size of uploaded files is limited, and the group capacity is limited (Munir et al., 2021). Thus, it is better if the WhatsApp group is used to do temporary knowledge sharing, then for more permanent knowledge storage, it can be done in a data repository.

According to one informant, the non-formal format of the discussion actually resulted in a better discussion because it was not awkward. One idea that can be implemented is to hold a working meeting in a non-formal place in the form of a group discussion to discuss research strategies. The Head of STIE described the programs initiated to support the knowledge sharing process between lecturers, such as the morning walk program for lecturers over 45 years old interspersed with research discussions. This morning's walk program made the lecturers enthusiastic in discussing research.

Other informants at the managerial level said that the leadership was very supportive of knowledge sharing but there were still lecturers who were reluctant to share knowledge with fellow lecturers. This is thought to be closely related to the culture of sharing knowledge between fellow lecturers that has not yet been formed, in line with what was found by Xu et al (2020). Providing incentives through awards for outstanding lecturers can be used to support the growth of a culture of knowledge sharing among fellow lecturers.

When discussed further about the conference, management level informants said that holding a conference was a very good thing and very possible. Conferences can be of several

types, namely Study Program level conferences, college level conferences, conferences with several other universities in one province, to national conferences involving campuses from three or more provinces. According to Sá et al (2019) academic conferences are a special place to disseminate new knowledge, as well as a place for social networking interactions among researchers.

One of the deficiencies felt by the informants was the absence of a data repository to share data with other people. This can be included in the work program of the information technology section to be able to provide a data repository for lecturers. By building a data repository as a means of conducting knowledge sharing, it is hoped that it can improve lecturer research performance as found by Prabowo et al (2018).

Knowledge sharing activities at STIE are mostly carried out to share tacit knowledge or what is also known as oral. Tacit knowledge is usually personal, because it resides in a person's mind and resides in it until it is finally shared, knowledge is generally difficult to share because it really depends on the two parties interacting in the sharing session (Husain & Ermine, 2021). Unlike documented explicit knowledge, communication of tacit knowledge is impossible until the knowledge is recorded. Organizations use these two types of knowledge which are known as organizational knowledge which are then used to support organizational activities in a process known as knowledge management (Husain & Ermine, 2021).

Problems experienced in knowledge sharing include digital skills, such as using software, using the internet, as well as motivation, self-confidence, and habits. What is quite interesting is that there are lecturers who conduct research that is different from the subjects taught, this makes the implementation of research in teaching less than optimal (Indonesia, 2019). Research that is different from courses should be avoided as much as possible to maximize the efforts that have been made with the initial step of providing understanding to each lecturer regarding the broad STIE research road map, and the research road map of each lecturer coordinated by the Study Program.

Knowledge Application

Most of the informants agreed that the data collected during the research could be used again in the next research. There are informants who share the data with students and fellow lecturers. In addition to data, video documentation and sharing found articles is also a way for informants to use the knowledge they get. From the results of the interviews it was also found that the informants used the results of their research in teaching, making book chapers, and other publications. The perceived drawback is the absence of a data repository to facilitate the storage of research data for future use.

The use of a data repository is one of the supports for the knowledge application process at this stage. The application of knowledge at the organizational level is closely related to business decisions, and directly affects organizational sustainability (Nawangsari et al., 2021).

Proposed Knowledge Management Strategy

Knowledge management can be interpreted as strategic management that uses information and knowledge as school resources to realize strategic plans and management processes including the formulation, implementation, monitoring, and evaluation of strategic plans (Cheng, 2021). The strategy proposed in this study consists of four stages consisting of formulation, implementation, monitoring, and evaluation.

The main thing that is the focus of improvement from the formulation stage is ensuring the availability, ease of access, and reliability of policies, research road maps, and SOPs regarding research. Formal documents owned by STIE are a good initial capital in ensuring

accountability, continuity, and transparency of research quality (BAN-PT, 2019). Documents related to research need to be published widely and clearly to all permanent lecturers. Dissemination of this information can be done by using the university's website, coordination meetings, or through the lecturer's WhatsApp group.

In addition to policies, road maps and SOPs, at the formulation stage it is also necessary to reemphasize the existing reward & punishment system. Dissemination of information regarding rewards for research success can be done through coordination meetings with lecturers. The award program for outstanding lecturers at the tertiary level and study program level can be used as a means to provide rewards for knowledge capture and knowledge sharing activities among lecturers. Penalties for negligence in conducting research, which so far have not been implemented optimally, need to be implemented in the form of a reduction in teaching credits, up to a written warning. In addition, changes to the compensation structure can also be made to increase the motivation of lecturers in conducting research (Sripada, 2020). The change in the compensation structure referred to by the Head of STIE is not to increase the honorarium for teaching credits, but to increase the honorarium for research credits.

At the implementation stage, each process in knowledge management needs special attention. In the knowledge discovery process, STIE needs to ensure that each lecturer has the basic skills to use computers and software needed to be able to carry out knowledge discovery. Based on the interview results, the basic skills referred to at least include the ability to use the internet, speak English, use tools to access articles and data needed in research. In the process of knowledge capture and knowledge sharing, creating a data repository is the main thing that can be done because it can be the main tool for lecturers in carrying out both processes. In the process of knowledge sharing, the non-formal atmosphere of meetings and discussion activities can be used to generate ideas related to research. Collaboration with other tertiary institutions to hold conferences can be a means for lecturers to share knowledge, and increase self-confidence, as well as increase relations with fellow lecturers at other tertiary institutions. For the initial stage, conferences can be held at the tertiary level by inviting all lecturers and students. Finally, in the knowledge application process, apart from being used as an additional teaching material and data source for further research, the knowledge stored in the data repository can be used to support research-related decision making by creating a knowledge management dashboard that contains an executive summary of the knowledge in the repository. data. Do not forget, exemplary leaders are one of the main factors for the successful implementation of knowledge management in an organization (Zyl et al., 2022), for that leaders need to get used to being actively involved in implementing knowledge management in their daily activities.

The next stage is monitoring the implementation of ongoing programs and program planning for implementation in the future. Several programs that have been running such as research assistance by LPPM, recruitment of research lecturers, and the morning walk program can be closely monitored so that the expected results can be realized, and irregularities can be resolved immediately. In the final stage, evaluation of the knowledge management strategy and its implementation in research should be carried out per semester, considering that the initial stage of forming a research culture is a quite crucial stage. Evaluation can be done in groups or individually if needed.

Based on the discussion regarding the knowledge management strategy, the authors created a knowledge management strategy model which can be seen in Figure 3.
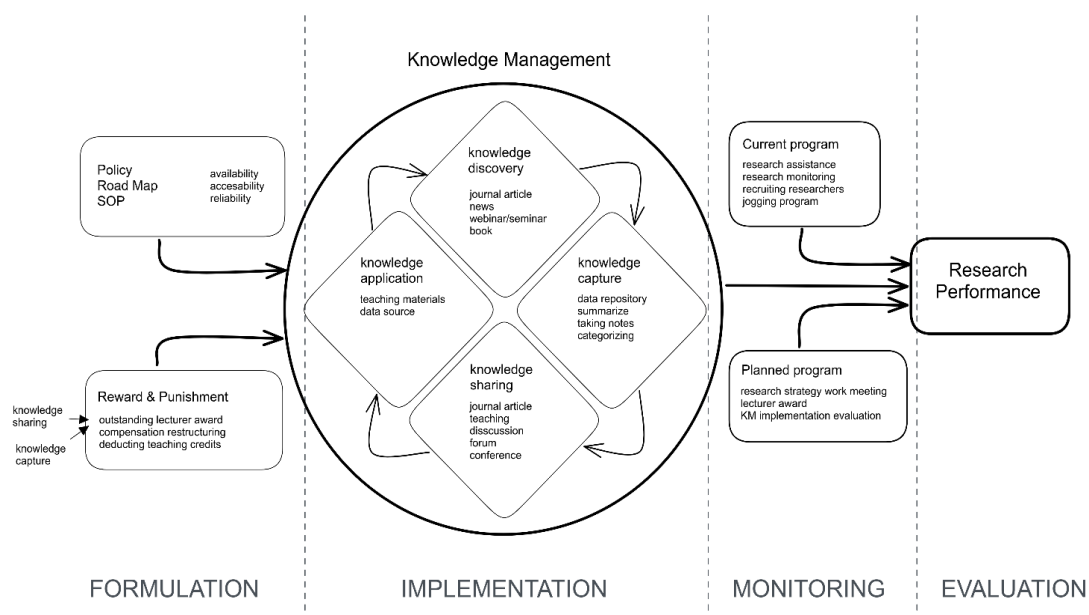
Figure 3. Model Strategi *Knowledge Management*
Source: Data processed (2023)

The next step is to internalize knowledge management processes in daily activities so that valuable knowledge can be passed on to the next generation through media in the form of data storage or data repository. Because it is collective in nature and may have a confidential element, considerations in choosing a data storage service provider need to be of particular concern. It is better if the information technology section formulates the method of implementing this data repository in more depth. The use of open source-based applications can be considered if in future implementation there are funding constraints.

CONCLUSION

Based on the research that has been conducted regarding the knowledge management strategy to improve the research performance of lecturers at the College of Economics, the following conclusions can be drawn:

1. Each process in knowledge management has a different role in research, especially for knowledge sharing, STIE lecturers have done quite well, but other processes have not been carried out optimally and need to be given a driver in the form of clear rules, reward & punishment system, availability of software, data repository, as well as strengthening the basic abilities of lecturers.
2. Problems that occur in knowledge management processes include lack of motivation, familiarity with information technology, proficiency in English, as well as other technical problems that can be solved with training.
3. The Technology component has played an important role in knowledge management processes at STIE, each informant uses technology to carry out knowledge management processes; The process component carried out by the informants can still be maximized by adding technology to support the process being carried out; while the Human Resources Component needs to receive further training in using technology, in this case the leadership is very supportive of knowledge management processes.
4. The strategy that can be carried out is to establish regulations related to research and make these regulations easily accessible to permanent lecturers; the next is to formulate a reward & punishment system that will be used, then build a data repository to facilitate knowledge management processes; monitor ongoing mentoring programs and ensure program plans

to be executed are ready on time; and evaluate the knowledge management strategy that has been carried out periodically.

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