

Analysis of Application of Knowledge Management Implementation PDCA Method as a Competitive Advantage at PT. Mutu Agung Lestari, Tbk

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ABSTRACT

This study aims to analyze the application of Knowledge Management with the Plan, Do, Check, Act (PDCA) method as a competitive advantage in PT. Mutuagung Lestari, Tbk. The research method used in this study is a qualitative approach by utilizing the Nvivo 14.0 application to analyze interview data related to the implementation of Knowledge Management and the PDCA method is used to evaluate the cycle of Knowledge Management implementation starting from planning, implementation, supervision, to continuous improvement of PT. Mutuagung Lestari, Tbk. The results of the study show that the application of Knowledge Management at PT. Mutuagung Lestari has covered aspects of knowledge acquisition, knowledge sharing, knowledge utilization, and Knowledge Management Approaches, with significant results in supporting innovation, efficiency, and business sustainability. Despite the challenges in knowledge sharing, data management, and a culture of collaboration, the company has demonstrated commitment through human resource development and the improvement of supporting infrastructure. Analysis with NVivo revealed that the Plan and Do stages in the PDCA method have gone well through training and discussion forums, while the Check and Act stages require improvement in evaluation and continuous improvement. Knowledge Management is also a key element in decision-making and process efficiency, while supporting companies to rely on a competent workforce as a key competitive advantage. With a commitment to professional service and client satisfaction, the reputation of PT. Mutuagung Lestari is getting stronger in the certification sector.

INTRODUCTION

In the era of the industrial revolution 4.0 and society 5.0, the business world faces the demands of transformation in various sectors to remain relevant and competitive. A company's inability to adapt to changes in the business environment can lead to a loss of competitiveness. Internal problems such as product quality inconsistencies, suboptimal service, and unorganized work systems are often major obstacles in achieving company goals. One of the solutions to face this challenge is the implementation of ISO (International Organization for Standardization) management system certification. ISO aims to improve the company's credibility, operational efficiency, and employee performance, which ultimately helps the company compete in the global market. In addition, the human resource (HR) factor as the company's main asset has an important role in creating a competitive advantage.

In industries such as TIC (Testing, Inspection, and Certification), quality human resources are a key factor in achieving the company's vision and mission. The Knowledge Management (KM) strategy is also increasingly relevant in increasing the company's competitiveness. KM helps companies effectively manage knowledge about products, customers, work processes, and company data to create innovation and efficiency. This approach not only increases productivity but also instills a culture of knowledge sharing that supports continuous learning. The implementation of the ISO 9001 system that focuses on continuous improvement through the PDCA (Plan-Do-Check-Act) cycle is a real example of how companies can meet modern business challenges. PT. Mutuagung Lestari, Tbk, under the brand name "MUTU International," has proven its success as one of the leading players in the ICT industry. With a network spread to various countries and provinces, this company is an example of successful adaptation in facing the dynamics of global competition.

According to Triasmoko (2014), one of the factors that can affect the quality of company services is employees. Employees or human resources (HR) are one of the company's important assets

in addition to other material assets such as capital, buildings, machinery, office equipment, inventory of goods and so on. Human resources in companies are growing rapidly, along with the increasingly fierce competition in the *world of the ICT (Testing, Inspection, and Certification) industry*. Human resources are one of the important aspects to produce the achievement of a vision, mission and goals that a company wants to achieve (Sunyoto, 2015).

According to Fisher, et al., in Endress and Smoak (2008), human resource factors are considered as potential factors in providing a competitive advantage for companies, while other factors such as financial resources, production, technology and marketing do not receive full attention because they tend to be replicable. Rapid changes in the environment, characterized by advances in information, changes in market tastes, demographic changes, economic fluctuations and other dynamic conditions require companies to respond to changes in order to remain in global competition. Companies must be more flexible to adapt to an increasingly competitive environment and always try to increase their productivity and maintain their competitive advantage. According to Porter in Arianty, et al (2016), competitive strategy is the search for a profitable competitive position in an industry, because the fundamentals where competition occurs, and *competitive advantage* is the ability of a company obtained through its characteristics and resources to have a higher performance than other companies in the same industry or market.

Competitive advantage can be obtained through the use of the company's resources and how the company is able to formulate and carry out strategies in its marketing. According to Kotler and Armstrong (2014), competitive advantage is an advantage over competitors that is obtained by offering consumers more value. Competitive advantage is like the achievements obtained in a competition, that's why companies must continue to formulate and carry out various strategies to achieve competitive advantage. Competitive advantage strategies can be used as a foundation for the company's progress. According to Hill and Jones in Aditi and Pentana (2018), competitive advantage is a company's specific strength that can make a company able to make products that are different from the products offered by competitors and have a lower price than competitors. Because consumers are quite selective in choosing prices when making purchases, consumers will tend to choose the desired product that has a lower price, so companies that are able to attract more consumers will certainly be superior to their competitors.

Other advantages can be obtained through the ownership of superior human resources, which is the most important asset of the company, because human resources are the only place where knowledge assets (*Knowledge*) are attached (Lancourt and Savage, 1995). *Knowledge Management* plays a very important role in a company's business strategy. Therefore, knowledge of products, services, processes, customers, relationships with stakeholders, human resources, the business environment, and the company's memory (data), will make the company understand the purpose of its existence and how to achieve it. The purpose of the application of *Knowledge Management* is to improve and improve the company's operations in seeking competitive advantages which are used to improve communication between superiors and workers to maintain work processes, instill a culture of knowledge sharing and implement systems. *Knowledge Management* is said to be successful when it acquires and maintains customers by applying *Knowledge Management* which takes care of the people in it so that they continue to be productive in learning (*learning organization*) and sharing knowledge (*Knowledge sharing*) (Stapleton, 2003). The following is the development of the number of ISO certification customers at PT. Mutuagung Lestari, Tbk:

Table 1. The Development of the Number of ISO Certification Customers of PT. Mutuagung Lestari, Tbk Year 2022-2024

Year	Number of Customers
2022	423
2023	457
2024	463

Source: PT Mutuagung Lestari, Tbk

Based on the table 1, the last three years, there has been a fluctuation in the number of customers, where in the period from 2022 to 2023 there was an increase of 34 customers or around 3.86%, and in the period from 2023 to 2024 there was also an increase in the number of customers by 6 customers or around 0.65%. With the various services provided by PT. Mutuagung Lestari, Tbk is necessary for each branch office or head office to be able to convey to potential customers or customers related to the services they have, must understand what the needs of potential customers or current customers are to subsequently become input to the head office in improving services to its customers. PT. Mutuagung Lestari, Tbk in general has implemented *Knowledge Management* in improving the knowledge and *skills* of its employees. The number of human resources, especially auditors owned by PT. Mutuagung Lestari, Tbk, which is the spearhead of every certification service provided to customers, can be seen in the following table:

Table 1. The number of Auditors of SBU PIJP OP 2 (Agriculture, Industry & Public Services Division) of PT. Mutuagung Lestari, Tbk

No.	Auditor	Number (People)
1	Organic (Homebase Depok)	8
	Organic (Homebase Makassar)	1
2	Non-Organic (Eksternal)	59
	Total	68

Source: *PT Mutuagung Lestari, Tbk*

From table 2, there are 68 auditors/assessors divided into 8 organic (permanent) employees (Depok Homebase Organic Employees), 1-person (Makassar Homebase Organic Employees) and 59 non-organic (External) employees. This makes the phenomenon that the number of auditors is very limited compared to the number of customers (clients). Against the background of this problem, there is a strong push from researchers to find out whether using the PDCA method in the application of *Knowledge Management* can create a competitive advantage in PT. Mutuagung Lestari, Tbk so that the success of PT. Mutuagung Lestari, Tbk can be a model for similar companies in implementing *Knowledge Management*.

RESEARCH METHOD

This study uses a qualitative method with an explanatory research approach that aims to understand the phenomenon through in-depth data description and analysis. This research was carried out in September - October 2024. Data collection was carried out in a triangulation manner with primary data sources in the form of interviews and secondary data from company documents. The location of the research is PT. Mutuagung Lestari, Tbk in Depok City, with purposively selected informants, involves five people who have a deep understanding of the research object, namely the Director of Certification, Certification Manager, and Certification Auditor as many as 1 (one) person each, and Customer of Certification Activities as many as 1 (one) person/company where 2 (two) companies will be taken. The data analysis process uses the Miles and Huberman model, which involves three main steps: data reduction, data presentation, and conclusion drawn. The analysis is carried out with the help of NVivo 14 Plus software, which allows for effective and efficient encoding of the data. This research aims to explain competitive advantages, the application of *Knowledge Management*, and the use of the PDCA method in company management, to produce relevant strategies to increase competitiveness.

RESULTS AND DISCUSSION

Knowledge Management Application Analysis

This research focuses on the analysis of the application of *Knowledge Management* (KM) at PT. Mutuagung Lestari, Tbk, uses the PDCA (*Plan, Do, Check, Act*) method. The information was obtained from six informants, namely one member of the Board of Directors, one Manager, two auditors, and two

corporate clients. In data collection, a structured list of questions is used to obtain relevant information related to the implementation of KM. The results of the interviews show several important points, namely:

“PT. Mutuagung Lestari, Tbk has started to implement Knowledge Management, but the implementation is not fully optimal. The process of managing and using knowledge in the work of auditors is ongoing, but it still needs improvement, especially in terms of knowledge sharing between personnel. The company has prepared human resources to support knowledge management through the Privacy Center division which oversees ensuring auditor competence. In addition, there are two personnel who specifically manage training activities, including arranging training with competent resource persons, carrying out training, and evaluating the results through post-training exams.”

Statement of the Board of Directors of PT. Mutuagung Lestari, Tbk. This was also emphasized by the Manager of PT. Mutuagung Lestari, Tbk by saying:

“Actually, Knowledge Management has been implemented, but it is still at the manager-level stage. This knowledge can be conveyed through two methods, namely directly or indirectly. Indirectly, for example through notifications or communication between top-level management. Meanwhile, in person, it is usually done through formal meetings or meetings. istem Knowledge Management exists, but it has not been properly processed. Usually, the process starts with the corporate secretary (korsek). Knowledge Management management can be arranged by various sections, such as a corporate secretary or a Business Development division, depending on the type of knowledge to be imparted. This delivery process takes place from the top level to management or managerial. And to my knowledge, at the head office, the system used to support Knowledge Management includes online or indirect communication through WhatsApp (WA) groups and other internal communications. In addition, there are meetings or face-to-face meetings held at the head office. Meanwhile, for branches, the most widely used method is communication through WA groups or other existing intercommunications.”

Based on the answers from the director and Manager of PT. Mutuagung Lestari, Tbk can be drawn the conclusion, namely: PT. Mutuagung Lestari, Tbk has started to implement *Knowledge Management*, although the implementation is not yet comprehensive. The process of collecting and utilizing knowledge is already underway, but the knowledge sharing system between personnel still needs improvement to be more effective. The company has shown commitment to preparing human resources through its Privacy Center Division which focuses on improving auditor competence, from the selection of resource persons to post-training evaluation. This reflects the company's active efforts in building competent human resources. Despite this, the company does not yet have a formal and structured system for Knowledge Management. Currently, the process of sharing knowledge is done conventionally through discussions, WhatsApp groups, and face-to-face meetings, which still rely on managerial initiatives. To achieve optimal implementation, it is necessary to develop a more structured system.

Furthermore, interviews were also conducted with two auditors from PT. Mutuagung Lestari, Tbk, Makassar Branch, with the results that will be explained further as follows:

“PT. Mutu Agung Lestari (International Quality) is engaged in the field of ICT (Testing, Inspection, and Certification), where adequate knowledge is crucial. The company divides its employees into two groups: structural employees who are responsible for leadership and management, and functional employees such as auditors, inspectors, and surveyors who play a direct role with clients. The knowledge of this functional employee affects the quality of the company's services. The company has a special division, the Profession Center (PC), which oversees ensuring the competence of functional employees. The main function of the PC is the selection of prospective

employees based on internal and external standards, as well as competency monitoring which is carried out periodically through a logbook. The PC also conducts evaluations to meet competency needs that have not been achieved, including providing training and refreshments if needed. In addition, the PC conducts internal or external audit testimony to assess the competence of personnel. The company also provides workspaces to support knowledge sharing among new hires, with a focus on case studies to prepare them for situations in the field. All these efforts demonstrate the company's commitment to improving the quality of human resources through effective knowledge management."

Based on the results of the interview with the first auditor, it can be concluded that the First Interview is: PT. Mutuagung Lestari, Tbk, which is engaged in the field of TIC (Testing, Inspection, and Certification), prioritizes Knowledge Management to improve service quality. The company divides its employees into two categories: structural ones that focus on leadership and management, and functional (auditors, inspectors, surveyors) that interact directly with clients. The Professional Center (PC) Division is responsible for ensuring the adequacy and improvement of the competence of functional employees through selection, monitoring, evaluation, training, and auditing. PC also provides a space to support knowledge sharing, especially for new employees through discussions and case studies. This approach aims to improve employee competence in a sustainable manner, to maintain service quality.

Furthermore, to deepen information about the implementation of Knowledge Management at PT. Mutuagung Lestari, Tbk, conducted an interview with the second informant. The following are the results of the interview obtained:

"The application of Knowledge Management at PT. Mutu Agung Lestari Tbk. is still not optimal and has opportunities to improve. As a systematic effort in managing, sharing, and utilizing knowledge, this application needs to be done better to improve efficiency, innovation, and overall company performance. Some situations that illustrate shortcomings in its implementation include: first, knowledge is not yet centralized, so employees still must search for information repeatedly, which hinders efficiency. Second, there are no conditions that support collaboration and easy sharing of ideas, so innovation has not been able to develop optimally. Third, the decisions taken are still not based on accurate data and experience, which affects the quality of the decisions taken. Fourth, organizational knowledge is still lost when employees leave, which is a risk to business continuity."

The conclusion of the interview was that the Implementation of Knowledge Management at PT. Mutu Agung Lestari Tbk still faces various obstacles that show the need to improve the management, sharing, and utilization of knowledge systematically. Some of the key challenges include a lack of efficiency due to uncentralized knowledge, a lack of encouragement for innovation due to collaboration that has not been properly facilitated, a low quality of decisions that are not based on accurate data, and a loss of organizational knowledge when employees leave. Other weaknesses include the lack of optimal identification, storage, sharing, use, and evaluation of knowledge. In addition, supporting infrastructure such as databases, online discussion forums, knowledge-based applications, and formal training still needs development. Efforts to build a culture of knowledge sharing and the right selection of technology are also aspects that need to be considered. By improving these elements, companies can leverage Knowledge Management to drive efficiency, innovation, better decision-making, and overall business sustainability.

Analysis of the application of knowledge management based on knowledge acquisition, knowledge sharing, knowledge utilization, and knowledge management approaches

In terms of *knowledge acquisition*, the company focuses on gathering information and knowledge from various sources, such as internal and external training, market research, collaboration with partners,

and customer feedback. This process builds a solid foundation to support innovation and strategic decision-making. PT Mutuagung Lestari Tbk has shown a strong commitment to knowledge management through strategic steps such as the establishment of a *Privacy Center Division* which is tasked with ensuring the competence of all auditors. Although *knowledge acquisition* has gone well, this process is not fully optimal because there are still gaps in knowledge sharing between personnel that need improvement. The company's main challenge is to ensure that the knowledge gained by everyone can be shared effectively and have a real impact on employee competencies.

For this reason, the company not only focuses on gaining knowledge from competent sources, but also emphasizes well-rounded learning, including through the implementation of structured training, evaluation, and final exams. These measures are designed to create a continuous knowledge management cycle, support performance quality improvement, and strengthen the company's competitiveness. The knowledge acquisition process at PT Mutuagung Lestari is carried out in a structured manner with a focus on ensuring the adequacy of knowledge and competence of functional employees. Through the Profession Center (PC), the company ensures that auditors, inspectors, and surveyors meet the relevant competency standards, starting with a strict selection of prospective employees and continuing with competency monitoring using the audit logbook. This approach provides a solid knowledge base for functional employees before direct tasks in the field, ensuring optimal service quality.

In addition, the company encourages knowledge sharing through technology such as intranet portals, discussion forums, and mentoring programs to distribute information within the organization. PT Mutuagung Lestari also provides a working space facility for discussion and sharing of experiences, especially for new employees, to study case studies and gain a deeper understanding of the challenges in the field. Audit logbooks are used to document employee experiences and expertise, allowing for wider knowledge sharing. With this approach, companies ensure that the knowledge that individuals possess is spread and supports the development of collective competencies, improves service quality, and strengthens the competitiveness of the company.

To improve Knowledge Sharing at PT Mutuagung Lestari Tbk, companies need to build a structured knowledge database to facilitate the storage and access of important information, such as work procedures, reports, and best practices. In addition, companies should provide online forums to facilitate collaboration and experience sharing between employees, as well as develop applications that provide knowledge-based recommendations. Formal training programs also need to be strengthened so that knowledge can be applied effectively in daily work. Building an organizational culture that supports knowledge sharing through incentives or rewards, as well as choosing the right technology, will improve company efficiency, innovation, and performance.

In the implementation of Knowledge Utilization, PT Mutuagung Lestari Tbk focuses on the use of the knowledge that has been obtained to improve efficiency and quality of performance. The knowledge gathered is used in the day-to-day work process, especially in the work of auditors, inspectors, and surveyors who are in direct contact with clients. Through the integration of knowledge in decision-making and problem-solving, as well as regular training and competency evaluations, the company seeks to improve service quality, speed up work processes, and strengthen competitiveness in the market. By utilizing existing knowledge, PT Mutuagung Lestari Tbk is expected to encourage innovation and more accurate decision-making.

Knowledge gained through training and experience in the field is essential to ensure the execution of tasks to standards. Documented knowledge, such as procedures and best practices, is used to make accurate decisions in audits and provide appropriate recommendations for clients. Sharing knowledge through internal discussion forums also supports the effective implementation of Knowledge Utilization, improving efficiency, quality of audit results, and accelerating the implementation of audits in the field.

The implementation of Knowledge Management at PT Mutuagung Lestari Tbk integrates various approaches to manage, share, and utilize knowledge. The company builds a system for knowledge acquisition, sharing, and utilization through the Profession Center division that ensures employee competence with training and evaluation. Facilities such as discussion forums and online communities strengthen a culture of knowledge sharing, while technology supports the storage and management of

knowledge. Periodic evaluations are carried out to ensure the effectiveness of the knowledge management system. This approach aims to improve the company's operational efficiency, innovation, and competitiveness in the ICT industry.

PT Mutuagung Lestari Tbk has implemented various *Knowledge Management* (KM) approaches, namely *knowledge acquisition*, *knowledge sharing*, and *knowledge utilization*, to manage, share, and utilize knowledge optimally. Although the company has provided training facilities, discussion forums, and workspaces to support collaboration, the main challenges faced are cross-division knowledge and difficulties in integrating knowledge across the board. For this reason, the company continues to strive to improve the knowledge storage system and strengthen collaboration to ensure that knowledge can be accessed and used effectively by all employees.

Analysis of the application of knowledge management using the Plan, Do, Check, Apt (PDCA) method at PT. Mutuagung Lestari, Tbk

The application of *knowledge sharing* related to company programs can also be seen from the morning meeting where every Monday a meeting of all employees is held and on the next day there is always a study in the form of joint recitation and deliberation about the obstacles being faced. These activities are carried out to balance the program with the quality of a company. The implementation of *Knowledge Management* (KM) at PT. Mutuagung Lestari, Tbk can be analyzed through the PDCA cycle to ensure that the knowledge management process runs effectively and supports the company's strategic goals. Through the application of the PDCA method, PT. Mutuagung Lestari can strengthen *the Knowledge Management* system in an ongoing manner. This approach helps ensure that every stage of knowledge management runs measurably, from planning, implementation, evaluation, to corrective actions. The result is an increase in employee competence and a stronger competitive advantage in the TIC (*Testing, Inspection, and Certification*) industry.

Based on the interviews that have been conducted by the researcher, it can be concluded that this statement shows the context of PDCA (*Plan-Do-Check-Act*), *Knowledge Management* mainly plays a role in the Do stage, because in this stage, the provision of competent resources through knowledge management can support the implementation of activities in the organization. However, *Knowledge Management* can also play a role in the Planning stage, as the planning process can use existing knowledge as a basis for making better decisions. While the relevance may not always be immediately apparent, *Knowledge Management* remains an important tool in supporting all stages of PDCA.

The PDCA (*Plan-Do-Check-Act*) method is very relevant and effective to be applied in *Knowledge Management* because it provides a systematic and structured framework. At *the Plan* stage, organizations can identify knowledge needs, set goals, design management systems, and define success metrics. The *Do stage* involves the implementation of the system, the collection of knowledge, and the promotion of its use. Furthermore, *the Check* stage is used to evaluate the system's performance through data and analysis of results comparison with objectives. Finally, *the Act* stage focuses on continuous improvement, system adjustment, and successful process standardization. Examples of PDCA implementation include the creation of knowledge databases, the collection of technical solutions, and periodic system updates. The benefits include improved work efficiency, quality decision-making, a focus on continuous improvement, and a drive for innovation through knowledge sharing. With the PDCA cycle, organizations can build a *resilient, adaptive, and sustainable Knowledge Management* system.

Analysis of the Application of Knowledge Management as a Competitive Advantage at PT Mutuagung Lestari

The application of *Knowledge Management* consists of three components, namely people, place, and content. In its implementation, KM needs an authorized person as a source of knowledge, a place to share knowledge, and discuss the content of the discussion forum. These three components show that information technology plays a role in removing barriers related to discussion venues, thus allowing knowledge sharing or discussion. Thus, the results of *Knowledge* sharing can be achieved without having to meet in person. In general, *Knowledge Management* can be divided into two categories, namely tacit

and explicit. *Tacit knowledge* is the specific contextual and personal knowledge of a person that exists in human thought, behavior, and understanding.

The application of *Knowledge Management* at PT. Mutuagung Lestari, Tbk has a strategic role in creating a competitive advantage. In the *Testing, Inspection, and Certification* (TIC) industry, competitive advantage is determined by the quality of service based on the competencies and knowledge of employees. Through the *Professional Center* (PC) Division, the company has built a system that supports sustainable knowledge management, starting from employee selection to training based on competency needs evaluation. Through the implementation of *this Knowledge Management*, PT. Mutuagung Lestari can improve efficiency, service quality, and customer trust. This is a competitive advantage that is difficult for competitors to replicate, because it lies in thorough internal management and a focus on developing knowledge as a strategic asset. To strengthen this advantage, companies need to develop more integrated technology-based systems to maximize knowledge management and distribution.

Based on the interviews that have been conducted, it can be concluded from this interview that the process of sharing Knowledge Management at PT. Mutuagung Lestari, especially at the Depok headquarters, West Java, is still not optimal. The main obstacle is the reluctance of personnel who have participated in the training to share knowledge due to a lack of confidence or readiness to become internal resource persons. The knowledge sharing process is currently carried out through WhatsApp groups, live discussions, or meetings, but it is not yet fully integrated. However, the implementation of Knowledge Management has a significant impact on auditor competence that exceeds the standards of accreditation bodies, which is the company's advantage in carrying out its function as a verification body.

However, the implementation of Knowledge Management has not had a significant impact on the marketing or sales aspects, more pronounced on the operational aspects and management of knowledge products. The sustainability of the implementation of the PDCA (Plan-Do-Check-Act) system can be a good foundation to increase the effectiveness of Knowledge Management, support the improvement of employee competencies, and strengthen the company's competitiveness. For more optimal results, companies need to build a more structured and integrated system to facilitate the process of sharing knowledge efficiently and overcome internal barriers.

PT. Mutuagung Lestari, Tbk, including the Makassar branch, provides optimal and professional services, so that it can improve the quality management system in various agencies that are its clients. Good cooperation experience, some of which has lasted for many years, attests to the satisfactory consistency of service. Clients feel helped by a competent, communicative workforce, and able to provide clear and detailed explanations, thus meeting certification needs well. Many clients express their loyalty to continue using the services of PT. Mutuagung Lestari in the future, including for new certifications that are relevant to their needs. This company is also recommended to other agencies because it can provide excellent service and constructive solutions, with a humble and sincere attitude. This reputation makes PT. Mutuagung Lestari as the main choice for certification services in various sectors.

Nvivo Analysis and Test

The analysis of the data used shows that the use of the Nvivo 14 application is very helpful for researchers in analyzing interview data in qualitative research. This application makes it easy to organize, process, and analyze data that tends to be large and unstructured. In the analysis process, the main steps taken include data import, data organization, data visualization, and data extraction. The researcher used Nvivo to compile a report on the results of interviews with six resource persons to analyze the application of Knowledge Management through the PDCA method as a competitive advantage at PT Mutuagung Lestari, Tbk as follows:

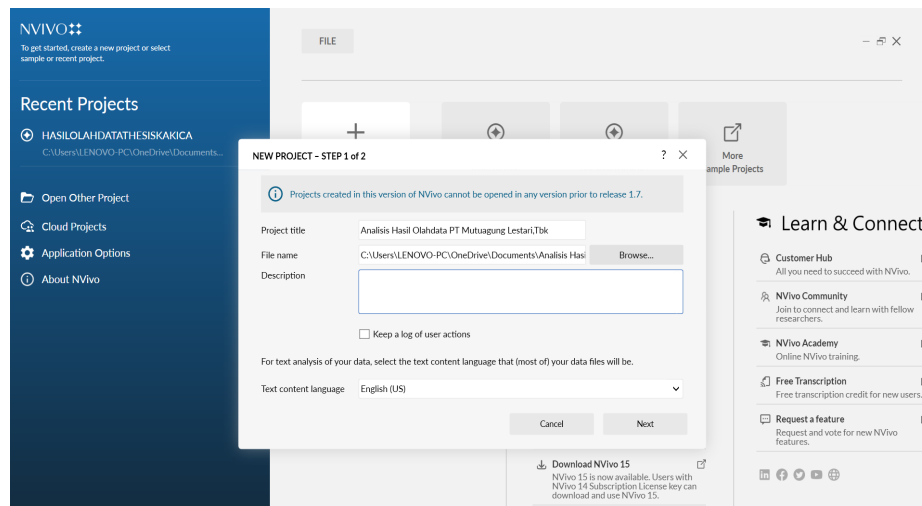


Figure 1. Project Nvivo
(Source: Data Results Processed by Researchers 2024)

Based on the image above, the researcher imported the data that had been obtained from the results of the researcher's interviews with 6 informants consisting of the Board of Directors, Manager, Auditor 2 People and 2 Clients.

Name	Codes	References	Modified on	Modified by	Classification
DIREKTUR	2	2	20/11/2024 00:12	LAU	
AUDITOR 1	0	0	20/11/2024 00:19	LAU	
MANAJER	1	1	20/11/2024 00:19	LAU	
AUDITOR 2	2	2	20/11/2024 00:34	LAU	
KLIEN 2	1	1	20/11/2024 00:34	LAU	
KLIEN 1	1	1	20/11/2024 00:34	LAU	

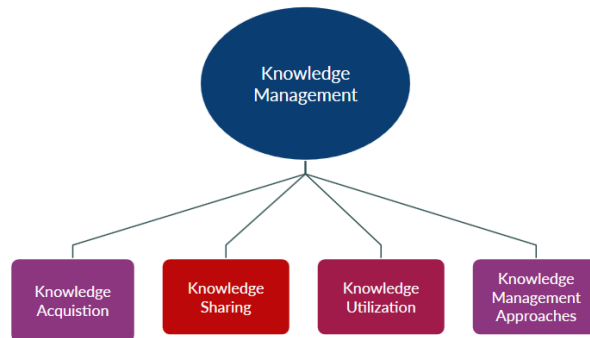
Figure 2. Data Presentation in NVivo
(Source: Data Results Processed by Researchers 2024)

After the data is imported, the next step that the researcher does is to code the data or make code on the data and divide it into several themes, in making the theme the researcher must first know the object that is most often talked about or raised by the source. In knowing that, the researcher used a feature provided by the NVivo application, namely NVivo software, to display text visually *in a word frequency* query. Based on the search results using this feature, it was found that the most frequently appeared word sets in the data that the researcher will present in the form of *word cloud* as follows:

visualized with the help of the NVivo application. *Mind maps* are a way to visualize data or themes that researchers find in research. Mind maps can also inform more general in the form of big themes or big ideas, then the big themes are described in more detailed or more detailed themes. The researcher presents it in the form of a mind map as follows:

Analysis of the application of knowledge management at PT. Mutuagung Lestari, Tbk

Overall, the application of *Knowledge Management* is illustrated in a mind map that has been visualized by researchers with the help of the NVivo application with the help of a mind map.



Gambar 6. Mind Mapping Knowledge Management
(Source: Data Results Processed by Researchers 2024)

PT. Mutuagung Lestari, Tbk has started to implement the concept of *Knowledge Management* as part of efforts to improve company performance, although the implementation is not yet completely even. Currently, the process of gathering and utilizing knowledge to support operational work has been going well. However, challenges are still found in the knowledge sharing system between personnel that needs to be improved to be more effective and equitable throughout the organization. To support this initiative, the company has demonstrated a strong commitment to human resource development through its *Privacy Center Division*. This division plays an important role in ensuring the auditor's competence, from the selection of the right resource persons to the thorough evaluation after training. These steps reflect the dedication of PT. Mutuagung Lestari in building competent human resources and playing an active role in knowledge management as the foundation of the company's sustainability.

PT. Mutuagung Lestari, Tbk, as a company engaged in *Testing, Inspection, and Certification* (TIC), makes *Knowledge Management* a key element in maintaining and improving the quality of its services. The company divides employees into two main categories, namely structural and functional. Structural employees focus on leadership, management, and operational support functions, while functional employees, such as auditors, inspectors, and surveyors, are the spearhead who interact directly with clients. With this approach, PT. Mutuagung Lestari is committed to building the capacity of its employees in an ongoing manner to maintain quality standards and client trust in its services.

The application of *Knowledge Management* at PT. Mutuagung Lestari Tbk is currently still facing various challenges that require serious attention to improve the management, sharing, and utilization of knowledge systematically. Some of the key obstacles include uncentralized knowledge, poorly facilitated collaboration, impeding innovation, decision-making that is not fully data-driven, and the risk of losing knowledge when employees leave. In addition, the process of identifying, storing, sharing, using, and evaluating knowledge is not yet maximal; while supporting infrastructure such as databases, online discussion forums, knowledge-based applications, and formal training still needs development. Companies also need to build a culture of knowledge sharing and choose the right technology to support this process. By overcoming these weaknesses, PT. Mutuagung Lestari can leverage *Knowledge Management* to improve operational efficiency, drive innovation, make better quality decisions, and ensure the sustainability of its business in the future.

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Overall, the application of *Knowledge Management* Using the *Plan, Do, Check, Apt* (PDCA) method is depicted in the mind map that the researcher has visualized with the help of the NVivo

application with the help of a *mind map*.

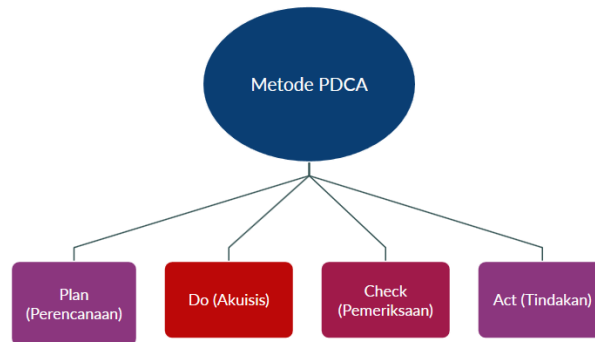


Figure 7. Mind Mapping PDCA Method
(Source: Data Results Processed by Researchers 2024)

Based on the results of the research that has been found, *Knowledge Management* also makes a significant contribution by providing a relevant knowledge base to support better decision-making. While the link to other stages may not always be immediately apparent, *Knowledge Management* remains a strategic element that supports success at each stage of the PDCA, strengthening the efficiency and overall quality of the process. PT. Mutuagung Lestari at the *Plan* stage is carried out by designing training based on needs evaluation, internal-external input, and competency improvement goals. Furthermore, in the *Do stage*, it includes the implementation of training according to the priorities and budgets set. Next, at the *Check stage*, the effectiveness of the training is evaluated through written tests and direct observations in the field. Finally, in the *Action* stage, the results of the evaluation are used to compile improvements that are the basis for the next planning. This approach reflects the company's systematic efforts to manage knowledge and improve employee competencies on an ongoing basis.

Analysis of the Application of Knowledge Management as a Competitive Advantage at PT Mutuagung Lestari

Based on the results of this study, the researcher provided a brief explanation of how the competitive advantage at PT Mutuagung Lestari, Tbk. The sharing method carried out through WhatsApp groups, direct discussions, or meetings has not been optimally integrated. In relation to competitiveness, *Knowledge Management* plays an important role in ensuring auditor competencies that exceed the standards of accreditation bodies, making it a key advantage for companies in the field of verification. However, its impact on other aspects such as marketing or sales is still limited. The development of a more structured and integrated knowledge sharing system is needed to overcome internal barriers and support the sustainability of organizational innovation.

PT. Mutuagung Lestari, Tbk, including the Makassar branch, has shown a commitment to providing optimal and professional services, which has contributed significantly to the improvement of the quality management system in its various client agencies. The experience of cooperation that has lasted for many years with several clients reflects the consistency and satisfactory quality of service. A competent, communicative, and able workforce to provide clear and detailed explanations is the main factor in meeting the client's certification needs well. Client loyalty to continue using the services of PT. Mutuagung Lestari, even for new certifications, as well as their recommendations to other agencies, reflects high trust in the company's services. With excellent service, constructive solutions, and a humble and sincere attitude, PT. Mutuagung Lestari has managed to maintain its reputation as the top choice in certification services in various sectors

Discussion

Knowledge Management is defined as systemic approaches that help the emergence and flow of information and *knowledge* to the right people at the right time to create value. *Knowledge* is an asset in the company and most companies do not manage the *knowledge* that is owned properly, especially the *knowledge* owned by employees in running business processes, so many companies end up depending

on employees. If the employee moves, *the knowledge* that exists in the employee also moves and the company automatically loses *the Knowledge* that should be managed by the company. The weak awareness of the importance of knowledge management, the need that knowledge must be managed properly and correctly is very important, so that employee performance can increase and later it will have an impact on company performance. Some people argue that knowledge management is only well-known and talked about a lot in the management world itself, not much in other fields. The statement is not entirely true, according to Irawan & Djastuti, (2016) the implementation of knowledge management is still relevant in discussion, even its implementation has now been widely carried out in many creative industries including in the world of education and companies based on creativity, competence and competition. Meanwhile, Fasmitha, (2017) is of the view that *Knowledge Management* is an activity of planning, collecting and organizing, leading and controlling data and information that has been owned by a company which is then combined with various thoughts and analyses from various competent sources.

The problem that the author highlights is about the capacity of human resources. This is because the key to the success of a business performance achievement is the capacity of human resources, in which there is an element that must be improved because it has an important role as a competitive advantage, namely *Knowledge Management*. Knowledge Management is a process that begins with the creation of knowledge, the process of storage, dissemination and ultimately, how the knowledge is used (Wulandari & Nurisani, 2020). Through *Knowledge Management*, the company strives to acquire and create useful knowledge and make it available to the company's members. Through *Knowledge Management*, data can be transformed into information, and into knowledge and into wisdom that can help companies make better decisions and increase the achievement of company goals. The application of *Knowledge Management* in a company can be beneficial in improving customer service, increasing productivity, assisting the company in making more informed decisions, increasing efficiency and effectiveness in processes and working methods, and can save time and costs.

The application of *Knowledge Management* refers to the identification and codification (usually previously unknown) of existing internal knowledge and knowledge within the company and/or external knowledge of the environment. The application of *Knowledge Management* is the development of new knowledge and *know-how* innovations that have not been previously owned by the company. In the context of an Information Systems project, knowledge creation is seen as an activity to develop and store new knowledge including discussing new ideas, to offer opinions, suggestions as well as committing to documenting knowledge and experience. Furthermore, team meetings, feedback on project status and observation of problem areas are also included.

PT Mutuagung Lestari, Tbk to support the Company's competitive advantage requires several plans in supporting employee human resources, namely recruiting experts from the relevant technology sector or industry to increase innovation capacity in the Company who can implement a digital-based knowledge management system that facilitates access and update information for all employees. With this planning, PT. Mutuagung Lestari Tbk can build a strong foundation to acquire relevant knowledge, as well as improve its competitiveness in the international market.

Companies always need to acquire knowledge located outside of their company to update knowledge and create new knowledge (Van et al., 1999). Thus, Knowledge Acquisition refers to all activities in a company that can obtain explicit knowledge or external knowledge that is very important (Zahra & George, 2002). Research states that companies will create opportunities to acquire and exploit knowledge (Lane & Lubatkin, 1998). And the concept of learning as a process of knowledge acquisition, assimilation knowledge, and knowledge exploitation (Cohen & Levinthal, 1990). YliRenko et al. (2001) propose that the acquisition of knowledge can improve the development of new products.

PT. Mutuagung Lestari, Tbk is currently doing well. The development of employee performance is also good; from the beginning they did not understand about doing business now they are good at business because they learn a lot and what they did not know at first about how important an employee must know technology to apply in daily life. By doing this planning, PT Mutuagung Lestari, Tbk can ensure that knowledge acquisition runs in accordance with the objectives, provides real benefits, and can continue to be improved through feedback and adjustments.

Knowledge is a concept, skill, experience, and vision that provides a framework for creating, evaluating, and using information (Soltani and Navimipour, 2016). In general, knowledge is divided into two types, tacit and explicit (Hubert, 1996). Tacit knowledge is knowledge that is personal and context-

specific of a person, which is in human thoughts, behaviors and perceptions (Duffy, 2000). Khaliq (2016) researched if the biggest problem facing companies is converting tacit *Knowledge* to explicit *Knowledge*, or vice versa. In actual business management, knowledge cannot be separated from the role and growth of the business, this knowledge will later be the key in making the business have a competitive advantage. It does not stop there for the realization of this competitive advantage; this knowledge must be processed into a business strategy that can later be used by entrepreneurs to produce competitive advantages.

This knowledge management is commonly referred to as *Knowledge Management*. *Knowledge management* is knowledge management to all levels of organizations or companies aimed at creating innovations and changes to improve efficiency and decision-making processes and maintain the stability of sustainable business processes using technology. The benefits of *Knowledge Management* are useful in maintaining the stability of company operations and business processes as well as in competitive advantage (Raditya, 2023). A competitive advantage can be possessed by a company if the company is able to understand and manage its resources well, which can be in the form of organizational resources and financial resources. According to David (2011), competitive advantage can be achieved continuously in two ways, namely: 1). Always adapt to the development of trends including external and internal activities (capabilities, competencies, and resources), 2). Effective in formulating, implementing, and assessing various strategies to strengthen these factors.

In addition, this competitive advantage creates something unique and creates a competitive advantage in its business to be able to compete continuously with other companies engaged in the same field. Companies that want to develop and gain a competitive advantage must be able to provide products in the form of quality goods or services and good service to customers, so that satisfaction will appear in the minds of customers and is expected to have a positive impact on the company (Mulyanto & Yoestini, 2011).

There are three basic types that can help organizations achieve competitive advantages, namely cost advantage, focus and differentiation. Porter calls all three general strategies (generic strategies). Cost advantage emphasizes the manufacture of standard products using low costs per unit for consumers who are sensitive to changing prices.

CONCLUSION

Based on the analysis of the application of knowledge management of PT. Mutuagung Lestari, Tbk has implemented Knowledge Management to improve performance and service quality, although it still faces challenges in knowledge sharing, data management, and collaboration culture. The company demonstrates commitment through sustainable human resource development and supporting infrastructure improvements to support innovation, efficiency, and business sustainability. Based on the analysis of the application of knowledge management using the PDCA method PT. Mutuagung Lestari, Tbk. Knowledge Management supports decision-making and the efficiency of the PDCA process at PT. Mutuagung Lestari through the planning, implementation, evaluation, and continuous improvement of training to improve employee competence. Based on the analysis of the application of knowledge management as a competitive advantage at PT. Mutuagung Lestari, Tbk. PT. Mutuagung Lestari, Tbk relies on Knowledge Management and a competent workforce as the main competitive advantage, although the knowledge sharing system still requires integration. The commitment to professional service and client satisfaction has strengthened the company's reputation in the certification sector.

Suggestion

PT. Mutuagung Lestari to maintain knowledge management and expand knowledge to employees and enough superiors to improve performance and quality of service through Knowledge Management, In addition, it is important to build a strong culture of collaboration by providing incentives to employees who actively share knowledge and contribute to internal discussions and continuous needs-based training must be continuously improved to ensure that human resource competencies remain relevant to industry developments.

For the next researcher, it will further deepen the understanding of the context of the application of knowledge management, indicators that are important in increasing competitor advantages.

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