Building Learning and Leadership Ecosystem Using Knowledge Management Perspectives in PT Tri Satya Jaya

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ABSTRACT: The research titled "Building a Learning and Leadership Ecosystem Using a Knowledge Management Perspective at PT Tri Satya Jaya" this research addresses significant challenges the company faces, particularly in performance decline and ineffective employee collaboration. The quantitative component involved administering a questionnaire called the Learning Organization Survey, modeled after Garvin et al. (2008), to assess the organization's learning depth, while the qualitative aspect comprises interviews with directors to gain deeper insights into performance-related issues. The research used the tree analysis method to determine the root causes of the decline in company performance. Additionally, the study highlights that organizational culture plays a crucial role in influencing employee performance. A culture that does not prioritize knowledge sharing and continuous learning can lead to stagnation and inefficiencies, ultimately affecting the company's competitiveness in the Engineering, Procurement, and Construction (EPC) sector.

A well-designed KM (knowledge management) Framework can facilitate the sharing and retention of knowledge. The study proposes strategies that leverage the SECI (socialization, externalization, combination and internalization) model to create a robust knowledge-sharing environment within the organization, by implementing the SECI model. The SECI model emphasizes the importance of social interactions in knowledge sharing, encouraging employees to collaborate and learn from one another. This research develops a detailed implementation timeline to ensure the effective integration of these KM strategies into PT Tri Satya Jaya's operations. The timeline is structured in four key stages: the first is KM Preparation for Internal Company, the second is Designing Guidelines and Curriculum, the third is KM System Implementation, and the fourth is the KM System Evaluation.

The research concludes that investing in human capital and adopting effective leadership practices are essential for driving organizational success and competitiveness in the EPC sector. By establishing a robust learning and leadership ecosystem, PT Tri Satya Jaya can overcome its challenges and achieve sustainable growth. The recommendations that this research offers are as follows: establishing a knowledge management team, investing in leadership development, creating structured mentoring programs, enhancing human capital investment, utilizing technology for knowledge management, and establishing performance tracking mechanisms.

KEYWORDS: Learning Organization, Knowledge Management, KM framework, Learning, Leadership, SECI Model.

I. INTRODUCTION

Large companies often engage EPC (engineering, procurement, and construction) companies to leverage their specialized expertise, efficiency, and risk management for projects. PT Tri Satya Jaya comes to fulfil the other company's demand. EPC companies are responsible for everything from design to completion. EPC companies ensure the execution of both small upgrades and large-scale infrastructure projects. In 2023, the company faced a declining performance issue that caused problems in operating cash flow and resulted in the number of projects taken from clients decreasing compared to the previous year. The other factor to the company's performance decline is the lack of investment in the learning and leadership development ecosystem, which inhibiting potential growth. The ideal condition is that the company has increased its performance because of its strategies to invest in the learning and leadership development ecosystem and reach the potential growth.

Since the company has an operational-based business process. It is very dependent on the people who work for the company. The company has tiny structures. When employees are the key players in the project, their valuable knowledge and skills go with them when they leave the company. Human capital does have a significant direct effect on knowledge management, highlighting the importance of investing in human capital to enhance knowledge management practices. Human capital significantly impacts

knowledge management and subsequent business growth. At the same time, leadership style plays a substantial role in knowledge management and business growth. Notably, effective knowledge management practices act as a full mediator between leadership, human capital, and business growth.

The objectives of this research are to identify the causes of performance decline, propose knowledge management strategies for the company, and develop a timeline implementation plan integrated with knowledge management. This research will focus on finding the best plans or strategies for this company to implement further solutions to solve the problem that PT Tri Satya Jaya faces, especially in knowledge management.

II. THEORETICAL FOUNDATION

A. Knowledge Management

Knowledge is a valuable resource and asset to employees with knowledge and expertise. The power of knowledge becomes stronger when knowledge is shared among people. Knowledge management can carry out individual responsibilities to improve the organization's dynamic, critical thinking, and network bonds (Samsudeen et al., 2020). However, it also engenders significant tensions and challenges (Donnelly, 2019). Knowledge-sharing behavior cannot be forced but must be fostered with the help of expertise associated with sharing knowledge with others (Al-Kurdi et al., 2020). Management's leadership can also be crucial in promoting and supporting employee knowledge-sharing behavior. Small firms have some unique features (e.g., limited financial and human resources, centralized management, focus on the day-to-day business operations, and short-term strategy) that deeply influence how they work (and can potentially constrain their propensity to introduce KM) (Zieba et al., 2016).

B. Learning Organization

Learning is not a simple exchange of existing knowledge; a learning organization has always been defined in the same sense as the learning process. The critical aspect of the organizational part is that it becomes more collective, not only individual. A learning company is an organization that facilitates the learning of all its members and continuously transforms itself. The critical point is survival and thriving, which requires adapting (Bogolyubov, 2020). A learning organization is an entity that fosters a culture of continuous learning and development among its members. According to Peter Senge (1990), the Five disciplines that help to build learning organizations are System Thinking, Personal Mastery, Mental Models, Shared Vision, and Team Learning. To create a learning organization, three aspects are needed: (1) a supportive learning environment, (2) concrete learning processes, and (3) leadership (Alagaraja & Herd, 2022). Supportive learning means feeling safe disagreeing with others and creating psychological safety. Concrete learning means knowing the value of opposing ideas, taking risks, and exploring. Leadership means the leader can engage in continuous learning opportunities, collaboration, and team learning.

C. Leadership Style

Leadership is a management that is mainly directed towards persons and social communication. Leadership styles refer to how leaders interact with their team members and manage the organization. In short, leadership is related to a person's skills, abilities, and influence to get people moving in a direction, making decisions, and doing things they would typically have yet to embark on(Sousa & Rocha, 2019). They are characterized by a leader's approach to decision-making, communication, and team development. Leadership styles and behaviors are defined as ways in which the leader influences the behavior of the employees to provide directions and goals through motivation and the definition of rules (Fries et al., 2021). Each leader chooses how they influence, interact with, and facilitate task completion with their subordinates (Kelly & MacDonald, 2019).

D. Qualitative Analysis

Qualitative research provides insights and understanding of the problem setting. It is an unstructured, exploratory research method that studies highly complex phenomena. Qualitative research is used to gain an in-depth understanding of human behavior, experience, attitudes, intentions, and motivations based on observation and interpretation to determine how people think and feel. Some methods to get the data include interviews, case studies, expert opinions, focus groups, open-ended survey questions, and observational research (Ahmad et al., 2019).

E. Quantitative Analysis

The quantitative analysis method is considered an effective tool for developing competitive strategic models by collecting and analyzing important internal and external data required for strategic planning. The quantitative method involves operationalizing concepts in terms of well-defined indicators, tracing trends and relationships, making comparisons, and using large and perhaps representative samples. Strategic management determines the priority of proposed strategies by assigning weights and attractiveness scores to internal and external factors. It helps in selecting the most suitable strategies from feasible options, providing a robust framework for accurately prioritizing strategies (Kuan et al., 2020).

F. Cause and Effect Diagram

Cause-effect Diagram is a simple and pragmatic way of doing root cause analysis. This diagram helps organizations understand and solve various technical and organizational problems. It is a qualitative analysis tool used to express and analyze causality (and it additionally indicates the relationship between the problem and its underlying cause). The CED analysis method is proper in structural cause relationship analysis (Xu & Dang, 2020). CED produce the hypotheses. However, examining multiple hypotheses simultaneously at once is usually only possible or practical; therefore, specific hypotheses must be selected for investigation. Specific hypotheses are listed in the sub-branches under the main branches of the Ishikawa diagram (Barsalou, 2023). A logic tree (also called a why-why diagram) is conceptually the same as an organization chart and is a way to document the idea of the five whys analysis. It is a simplified form of fault-tree analysis, which looks at how a system can fail. It might be considered a cause-and-effect diagram on steroids, breaking the analyzed system into a logical, incremental cause-and-effect relationship (Okes, 2019).

G. KM Framework

A KM (knowledge management) framework is a comprehensive system of people, processes, and technology that ensures that KM is applied systematically and effectively to improve business results. Knowledge visualization designates all graphic means that can be used to construct, assess, measure, convey, or apply knowledge. With the help of the visualization goal perspective, one can distinguish why visual knowledge representations are used in knowledge management. The situation perspective stresses that visualization depends on the physical or virtual setting and the number of people interacting to manage knowledge (Eppler & Burkhard, 2007). In addition, the setting up and implementing a KM framework in organizations are done to improve the efficiency and effectiveness of the organizations' activities. Specifically, they help organizations to:

(1) Focus on and protect their human and intellectual capital.
(2) Reorientate their culture by opting for an optimal knowledge-sharing strategy.
(3) Improve decision-making through facilitated access to expertise and leading practices
(4) Increase efficiency and productivity by reducing cases of "reinventing the wheel".
(5) Create links between people and improve innovation through more comprehensive and borderless collaboration.
(6) Minimize loss of know-how by capturing explicit and tacit knowledge;
(7) Enhance quality and the ability to collaborate by standardizing ways of working and enabling discussions with leading experts (Johnson Dei, 2020).

H. SECI Model

Knowledge is divided into two types: explicit knowledge and tacit knowledge. Explicit knowledge may be reified and, therefore, can be communicated, processed, transmitted, and stored relatively quickly. However, Tacit knowledge is only known by an individual and is challenging to transfer to others. It is embodied in actions, attitudes, commitments, emotions, and behavior but is very hard to convey through language (Canonico et al., 2020). The SECI (socialization, internalization, combination and internalization) Model, also known as the Nonaka and Takeuchi model, is a knowledge management model that describes how tacit and explicit knowledge is created and shared within an organization. The SECI model creates ideas, methodologies, processes, knowledge skills, innovation, and development. According to Nonaka & Takeuchi (1995), socialization involves knowledge in face-to-face interaction. Externalization happens when tacit knowledge is converted to implicit knowledge. Tacit knowledge is "what people carry in their minds and are difficult to access," while explicit knowledge is "what is documented and codified" and, therefore, easily transferred. The combination involves tacit knowledge transferred into explicit knowledge, while internalization is converted from explicit to tacit (Anshari & Hamdan, 2022). The SECI model explains how knowledge sharing can be relayed to knowledge transfer, hence developing know-how skills.

I. SWOT Matrix

The origins of the SWOT analysis technique are credited to Albert Humphrey, who led a research project at Stanford University in the 1960s and 1970s using data from many top companies. The goal was to identify why corporate planning failed (Bhavaraju, 2021). The SWOT matrix is a set of abbreviated words of Strengths, Weaknesses, Opportunities, and Threats, a well-known model in enterprise business analysis. Strengths and weaknesses are internal to the business, while opportunities and threats come from outside. It is the best-known SWOT matrix concept. Therefore, the concept of SWOT analysis can be given, which is the analysis of external environmental factors that the business faces and factors in the internal environment (Gepner et al., 2022). The internal environment discusses the strengths and weaknesses of the company. External environmental factors lead to opportunities and threats. Opportunities may direct the organization's activities, while threats

hinder its movement. External factors discussed in this study are the microenvironment, industry environment, and macro environment (Made Jiwa Astika et al., 2021). SWOT tool helps the administration simplify the organization's challenges and will face to write and implement the corrective actions for improvement(Siddiqui, 2021).
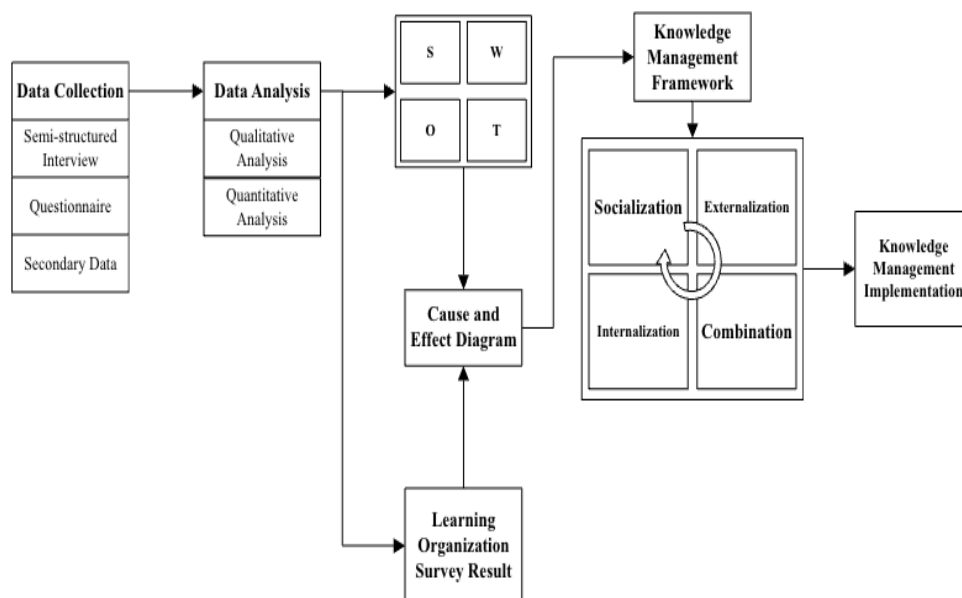

Figure 1. Research Design

III. RESEARCH METHODOLOGY

A. Research Design

This research begins with identifying the business problem. Data collection is achieved through semi-structured interviews, literature studies, and questionnaires. Interviews offer qualitative insights from key stakeholders, while the literature studies cite from existing research and industry sources. From the interviews, content-based analysis is used to examine the content of the interviews, while the questionnaire is used for data collection from the LO (learning organization) Survey. Then, a theoretical framework is selected including tools like the SWOT Matrix, Learning Organization survey results, and analysis of the problem caused by root cause from the cause and effect diagram visualized by three analyses. After that, the problem's proposed solution will be stated in the Knowledge Management Framework, SECI Model, and KM implementation.

B. Semi-Structured Interview

According to(Aymen et al., 2019), semi-structured interviews were used as a data collection method, and the researcher's goal was to understand the participant's unique perspective rather than an understanding of a phenomenon. The interviewer will prepare several core questions for the respondents. This interview aims to identify and evaluate the internal strengths, weaknesses, and external opportunities and threats that influence the company's performance. The interview will ask the president, director, and operational director.

C. Literature Study

Literature study play an essential foundation for all types of research. They can serve as a basis for knowledge development, create guidelines for policy and practice, provide evidence of an effect, and, if well conducted, have the capacity to engender new ideas and directions for a particular field.

D. Qualitative Analysis Method

Qualitative analysis involves interviews with participants to gather detailed data about their experiences and perspectives. This method is beneficial for exploring subjective experiences and generating hypotheses. The question is aligned with identifying and evaluating the internal strengths, weaknesses, and external opportunities and threats that influence the company's performance.

E. Quantitative Analysis Method

In the quantitative analysis method, the output would be descriptive statistics. Descriptive statistics are commonly used in survey analysis to summarize the responses to questions. Descriptive statistics are used to summarize and describe the characteristics of a dataset. The quantitative analysis method will gain data from the questionnaire. The questionnaire question is based on the LO Survey by Garvin & Gino (2008). The questionnaire is spread to 5 people: the presidential director, the finance director, the operational director, and two employees.

F. SWOT Matrix

There are two main steps to using the tools. The first is identifying internal and external environmental situations to define the attributes. Second, the IFE & EFE matrix is made; IFE stands for internal factors environment, and EFE stands for external factors environment (Fathia et al., 2021). From the interview, data will be extracted into a SWOT diagram and plotted by strengths, weaknesses, opportunities, and threats.

G. Learning Organization Survey

The learning organization survey used in this research is modelled by Garvin & Gino (2008). There is one key instrument called the building blocks of the learning organization, which build from three broad factors important for organizational learning and adaptability: a supportive learning environment, concrete learning processes and practices, and leadership behavior that provides reinforcement. Each block and its discrete subcomponents are vital to the whole, independent, and can be assessed separately.

- **Building Block 1: Supportive Learning Environment**

Psychological Safety

In this unit, it is easy to speak up about what is on your mind.

If you make a mistake in this unit, it is often held against you.*

People in this unit are usually comfortable talking about problems and disagreements.

People in this unit are eager to share information about what does and doesn't work.

Keeping your cards close to your vest is the best way to get ahead in this unit.*

Appreciation of Differences

Differences in opinion are welcome in this unit.

Unless an opinion is consistent with what most people in this unit believe, it won't be valued.*

This unit tends to handle differences of opinion privately or off-line, rather than addressing them directly with the group.*

In this unit, people are open to alternative ways of getting work done.

Openness to New Ideas

In this unit, people value new ideas.

Unless an idea has been around for a long time, no one in this unit wants to hear it.*

In this unit, people are interested in better ways of doing things.

In this unit, people often resist untried approaches.*

Time for Reflection

People in this unit are overly stressed.*

Despite the workload, people in this unit find time to review how the work is going.

In this unit, schedule pressure gets in the way of doing a good job.*

In this unit, people are too busy to invest time in improvement.*

There is simply no time for reflection in this unit.*

- **Building Block 2: Concrete Learning Processes and Practices**

Experimentation

This unit experiments frequently with new ways of working.

This unit experiments frequently with new product or service offerings.

This unit has a formal process for conducting and evaluating experiments or new ideas.

This unit frequently employs prototypes or simulations when trying out new ideas.

Information Collection

This unit systematically collects information on

- competitors
- customers
- economic and social trends
- technological trends

This unit frequently compares its performance with that of

- competitors
- best-in-class organizations

Analysis

This unit engages in productive conflict and debate during discussions.

This unit seeks out dissenting views during discussions.

This unit never revisits well-established perspectives during discussions.*

This unit frequently identifies and discusses underlying assumptions that might affect key decisions.

This unit never pays attention to different views during discussions.*

Education and Training

Newly hired employees in this unit receive adequate training.

Experienced employees in this unit receive

- periodic training and training updates
- training when switching to a new position
- training when new initiatives are launched

In this unit, training is valued.

In this unit, time is made available for education and training activities.

Information Transfer

This unit has forums for meeting with and learning from

- experts from other departments, teams, or divisions
- experts from outside the organization
- customers and clients
- suppliers

This unit regularly shares information with networks of experts within the organization.

This unit regularly shares information with networks of experts outside the organization.

This unit quickly and accurately communicates new knowledge to key decision makers.

This unit regularly conducts post-audits and after-action reviews.

- **Building Block 3: Leadership That Reinforces Learning**

My managers invite input from others in discussions.

My managers acknowledge their own limitations with respect to knowledge, information, or expertise.

My managers ask probing questions.

My managers listen attentively.

My managers encourage multiple points of view.

My managers provide time, resources, and venues for identifying problems and organizational challenges.

My managers provide time, resources, and venues for reflecting and improving on past performance.

My managers criticize views different from their own.*

* Reverse-scored items

This diagnostic survey is designed to help determine how well the company functions as a learning organization. It is divided into three sections, each representing one building block of the learning organization. Building Block 1: A Supportive Learning Environment and Building Block 2: Concrete Learning Processes and Practices, uses the questionnaire with a scoring range of 1-7; 1 means strongly disagree and seven means strongly agree. Building Block 3: Leadership that reinforces learning uses the questionnaire with a scoring range of 1-5; 1 means strongly disagree, and 5 means strongly agree. The scores collected from the LO survey are averaged, and then the following chart maps out each subcomponent's performance. Consider initiating an improvement effort if the attribute scores fall at or below the median in a particular building block or subcomponent, especially in the bottom quartile.

Building Blocks and Their Subcomponents	Scaled Scores				
	Bottom quartile	Second quartile	Median	Third quartile	Top quartile
Supportive Learning Environment					
• Psychological safety	31–66	67–75	76	77–86	87–100
• Appreciation of differences	14–56	57–63	64	65–79	80–100
• Openness to new ideas	38–80	81–89	90	91–95	96–100
• Time for reflection	14–35	36–49	50	51–64	65–100
Learning environment composite	31–61	62–70	71	72–79	80–90
Concrete Learning Processes and Practices					
• Experimentation	18–53	54–70	71	72–82	83–100
• Information collection	23–70	71–79	80	81–89	90–100
• Analysis	19–56	57–70	71	72–86	87–100
• Education and training	26–68	69–79	80	81–89	90–100
• Information transfer	34–60	61–70	71	72–84	85–100
Learning processes composite	31–62	63–73	74	75–82	83–97
Leadership That Reinforces Learning					
Composite for this block	33–66	67–75	76	77–82	83–100

Note: The scaled scores for learning environment and learning processes were computed by multiplying each raw score on the seven-point scale by 100 and dividing it by seven. For learning leadership, which was based on a five-point scale, the divisor was five.

Figure 2. Comparative LO Survey Chart (Garvin & Gino, 2008)

H. Cause and Effect Diagram

The cause and effect diagram will be analyzed using Tree Analysis. Tree Analysis is a systematic method used to identify the root causes of system failures by analyzing the logical relationships between the different components of a system. The Tree Analysis will combine data from the LO Survey result and SWOT Matrix that extracted where attributes from LO Survey have weak scores. Tree Analysis helps visualize a top-down approach that begins with a "top event," which is the undesired event or the problem that needs to be analyzed, and then identifies the various combinations of primary events or the cause and root cause that can lead to the top event.

I. Knowledge Management Framework

A knowledge management framework will be developed based on the objectives identified within the Tree Analysis, SWOT Matrix, and LO Survey. This framework will consider the three critical elements of knowledge management: people, processes, and technology.

J. SECI Model

The SECI model helps in identifying potential roadblocks and resistance. By addressing these issues, the organization can build, nurture, and sustain readiness for implementation, which is crucial for successfully adopting the SECI model. The SECI Model will be filled from the action stated in the KM Framework and divided into actions that suit each phase.

IV. RESULT AND DISCUSSION

A. SWOT Matrix

The SWOT data was collected through a semi-structured interview with the president, director, and operational director.

Strengths, the commissioner and directors lead the company with a strong reputation from their previous role at PLN. One of the most significant advantages is the director's network and reputation, which allows the company to receive early information about projects and maintain a strong relationship with clients. This provides a competitive edge and builds trust and loyalty among clients, which is crucial for the company's growth and sustainability. Another significant strength is the company's financial foundation, supported by the director and another investor. This financial backing enables the company to take on projects and expand its services. Furthermore, the company is compliant with Indonesian law, which all business activities are conducted ethically and transparently, which is essential for building trust with clients and maintaining a positive reputation.
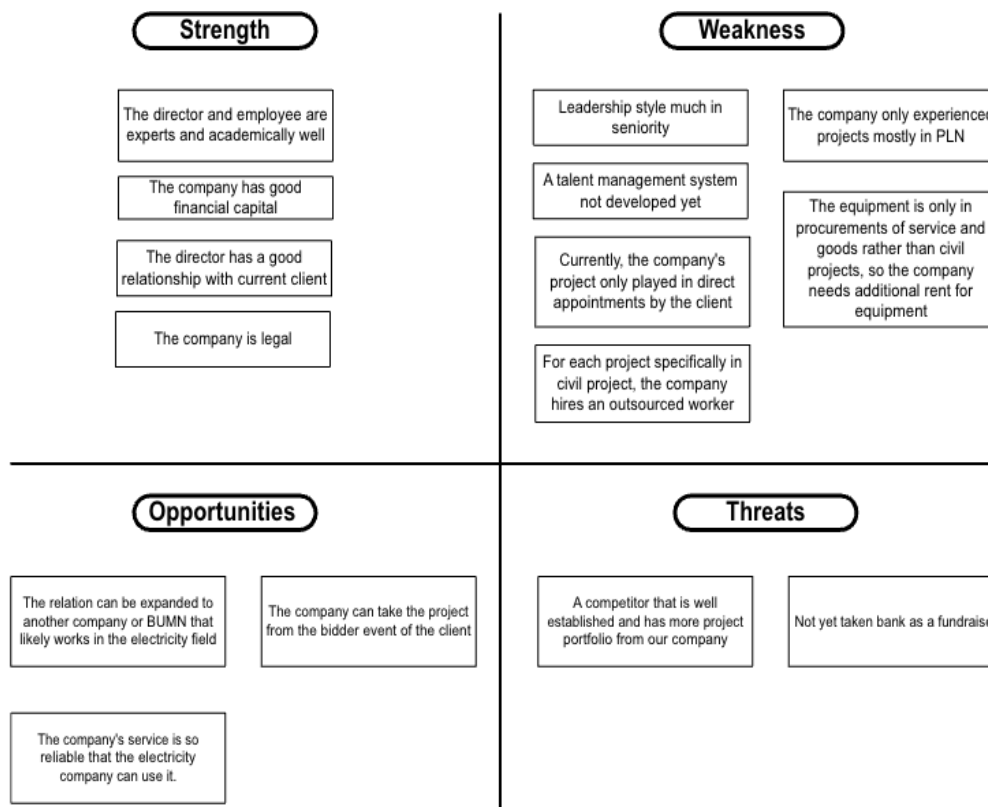

Figure 3. SWOT Matrix Result

Weakness, The company faces several weaknesses that need addressing. The leadership style within the company is influenced by seniority, which can stifle innovation and the introduction of fresh ideas. Another issue is that the employee engagement in this company is not in good condition. Additionally, the company has not yet developed a robust talent management system. This absence limits the company's ability to nurture and retain talent effectively. It makes the employee lack skills and could affect the company's performance. Furthermore, if this situation proceeds, it can cause the company to lack an advantage in human resources because investing in humans is more valuable than equipment for further advantage and company sustainability. The company has only experienced projects owned by PLN (Perusahaan Listrik Negara). The project portfolio is limited to direct client appointments

because the company has not yet invested in human resources for proper bidding events. Another problem that companies face is dependence on outsourcing workers and renting equipment for construction projects. This reliance on external labor can lead to increased costs. Furthermore, the company's equipment is primarily suited for procuring services and goods rather than civil projects. As a result, the company frequently needs to rent additional equipment for these projects, leading to higher operational costs and smaller profits.

Opportunities, The company has several opportunities to improve its performance. One of the most significant opportunities is diversifying its portfolio by taking on projects outside PLN or the companies that work for electricity services. This could expand the company's revenue streams and reduce its dependence on a single client, making it more resilient. Another significant opportunity is to develop a competitive edge by participating in bidding processes. By improving its marketing efforts and developing a solid reputation for delivering high-quality services, the company can increase its chances of securing more projects and expanding its services. The company has a specific field of specialization that provides procurement goods and consulting services to PLN. It can also expand the service for companies with similar fields and business models like PLN.

Threats, The company faces several threats that could impact its future. One of the most significant threats is competition from other service providers with more extensive project portfolios and financial resources. Another significant threat is the company's limited credit history, which may make it difficult to secure bank loans in the future. This lack of credit history can limit the company's ability to expand or respond to financial challenges, making it essential to develop a strong credit profile strategy.

B. LO Survey Result

After conducting the questionnaire to all directors and two employees, here are the results gained from the survey.

a. Supportive Learning Environment

Psychological Safety	71,4
Appreciation of Differences	73,8
Openness to New Ideas	85,7
Time For Reflection	77,1
Supportive Learning Environment Average	77

b. Concrete Learning Processes & Practices

Experimentation	64,3
Information Collection	79,4
Analysis	73,3
Education & Training	16,3
Information Transfer	46,4
Concrete Learning Processes & Practices Average	55,9
c. Leadership That Reinforces Learning	62,5

From the results shown above, several conclusive explanations can be made:

a. Supportive Learning Environment

Psychological Safety is in the Second Quartile. This indicates a relatively low level of psychological safety where speaking up about what is on one's mind is not easy.

Appreciation of Differences is in the Third Quartile. Differences in opinion are generally welcome, but there is a notable issue: "Unless an opinion is consistent with what most people in this unit believe, it will not be valued."

Openness to New Ideas is in the Second Quartile. This indicates that while new ideas are somewhat valued, there is room for improvement in fostering a more open culture to innovative approaches.

Time for Reflection is in the Top Quartile, indicating a strong practice of finding time to review work despite a high workload. However, there is a notable issue: "In this unit, people are too busy to invest time in improvement."

b. Concrete Learning Processes & Practices

Experimentation is in the Second Quadrant. The processes for conducting and evaluating these experiments still need to be formalized and enhanced. Information Collection is in the Second Quartile. This indicates a solid foundation in information-gathering practices, but it still needs improvement.

Analysis is in the Third Quartile. There is a need to improve engagement in productive conflict and debate during discussions. However, an issue exists: "This unit engages in productive conflict and debate during discussions."

Education & Training is in the Bottom Quartile. There is a significant deficiency in this area. However, there are several notable issues: "Newly hired employees in this unit receive adequate training.", "Experienced employees in this unit receive periodic training and training updates.", "Training when switching to a new position.", "Training when new initiatives are launched.", "In this unit, training is valued.", and "In this unit, time is made available for education and training activities."

Information Transfer is in the Bottom Quartile. The unit lacks forums for meeting with and learning from experts within and outside the organization. There are some issues "This unit has forums for meeting with and learning from experts from other departments, teams, or divisions.", "Experts from outside the organization.", "This unit regularly shares information with network of experts outside the organization.", "This unit regularly conducts post-audits and after-action reviews."

    c.   Leadership That Reinforces Learning

Leadership that reinforces learning is in the Bottom Quartile. The issue is "My managers invite input from others in discussions."

C. Tree Analysis

The tree analysis work is based on the SWOT Analysis and LO survey results. The tree analysis is divided into three sections: the main problem, categories, and subcategories. The main problem is what the problem company must solve. Categories mean that a section is filled with subcategories and classified with similar subcategories. Subcategories are the data gathered from the LO Survey result and SWOT result. This analysis aims to identify the root causes of the company's problems by examining Learning Organization (LO) Survey results, weaknesses, and threats.

The next step is to search for and categorize the root cause by synthesizing the LO Survey results with the SWOT analysis. From synthesizing the results, here are the categories and causes.
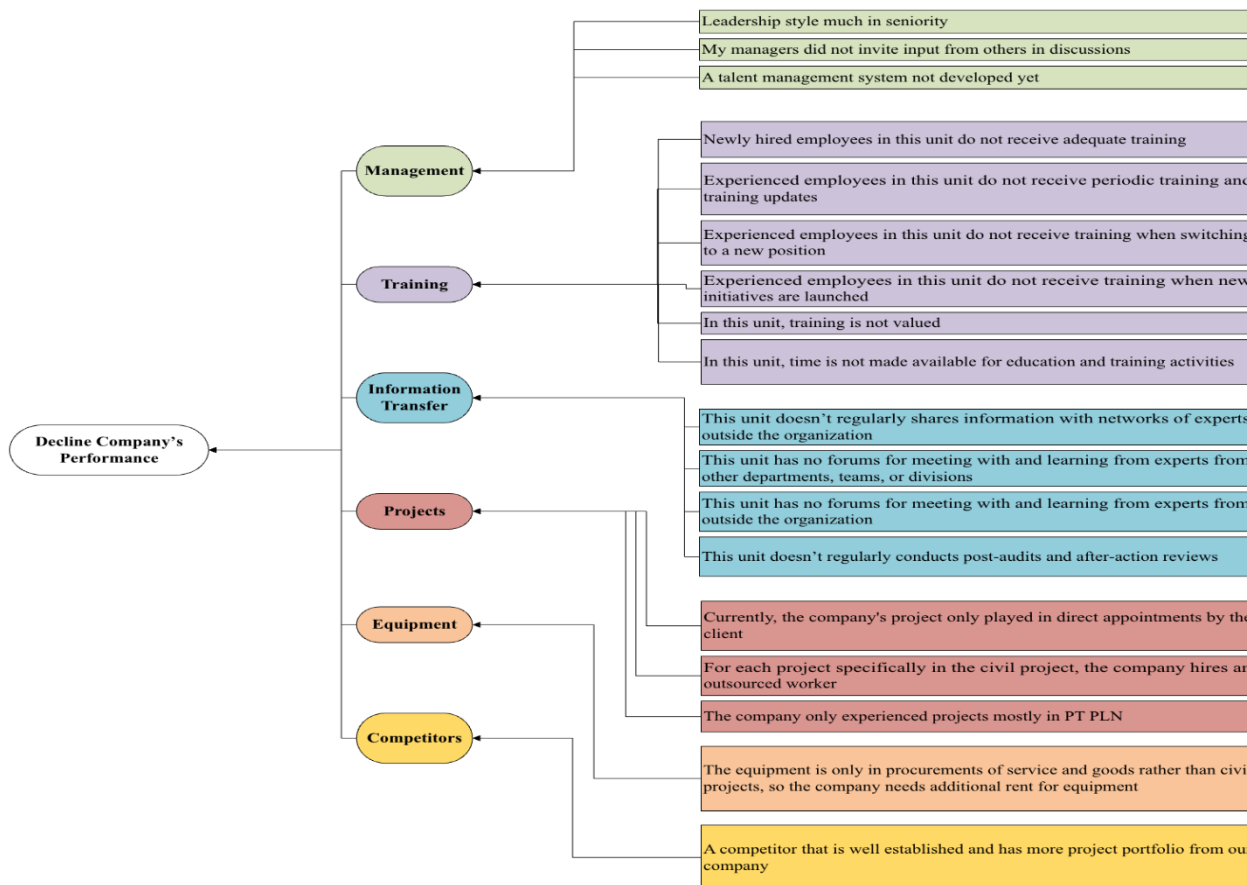

Figure 4. Tree Analysis

Management involves organizing, coordinating, and overseeing activities and employees within a company to achieve business goals. Effective management practices are crucial for guiding the company toward its objectives, fostering a positive work environment, and ensuring efficient operations. Poor management can lead to disengaged employees, a lack of innovation, and ineffective decision-making processes. The root causes for the problem are as follows:

1. Leadership style much in seniority
2. Managers did not invite input from others in discussions
3. A talent management system not developed yet

Training refers to the systematic development of skills, knowledge, and competencies through various educational methods to enhance employees' performance—implications: Training is essential for equipping employees with the necessary skills to perform their roles effectively. Insufficient training can result in skill gaps, reduced productivity, and lower employee job satisfaction. The root causes of the problem are as follows:

1. Newly hired employees do not receive adequate training
2. Experienced employees do not receive periodic training and updates
3. Experienced employees do not receive training when switching to a new position
4. Experienced employees do not receive training when new initiatives are launched
5. Training is not valued in this unit
6. Time is not made available for education and training activities

Information transfer is sharing knowledge, data, and insights within and outside an organization. This includes communication between departments, teams, and external experts. Efficient information transfer is vital for collaboration, innovation, and informed decision-making. Poor information transfer can lead to silos within the organization and miscommunication. The root causes of the problem are as follows:

1. Doesn't regularly share information with networks of experts outside the organization
2. There are no forums for meeting and learning from experts from other departments, teams, or divisions.
3. There are no forums for meeting and learning from experts outside the organization.
4. Don't regularly conduct post-audits and after-action reviews

Effective project management ensures that projects are completed on time, within budget, and to the required quality standards. Poor project management can result in delays, cost over budget, and failure to meet project objectives. The root causes of the problem are as follows:

1. Project only played in direct appointments by the client
2. Each project specifically in the civil project hires an outsourced worker
3. Experienced projects mostly in PT PLN

Equipment encompasses the tools, machinery, and technology necessary for company operations. The right equipment is crucial for efficiency, productivity, and maintaining competitive standards. The root causes of the problem are as follows:

1. Equipment much only in procurements of service and goods rather than civil projects.

Competitors are other businesses offering similar products or services in the same market. Ignoring competitors can lead to missing growth opportunities. The root causes for the problem are as follows:

1. A competitor that is well established and has more project portfolio from our company

After identifying several categories, the next step is grouping which categories can share common elements or have similar impacts in the organizational areas. One group can share similar elements, but it combines with different elements to fulfil.

First, the category addresses issues that impede employee growth, development, and empowerment. It includes problems related to knowledge sharing, external competitiveness, and a lack of support for employee growth and empowerment.

Second, the category includes issues related to the systematic management of talent within the organization. It focuses on the absence of structured systems and practices necessary for effective talent management and development, which are called deficiencies in structured talent management processes.

Third, the category covers issues that discourage innovation and stem from leadership problems. It includes project management, equipment, and competition, which affect the company's support and innovation. This is called a leadership issue and discourages innovation.

Finally, the tree analysis will be expanded to include more branches that imply the categories related to "Lack of support employee growth and empowerment", "Deficiencies in structure talent management program process", and "Leadership issue and discourages innovation".

Based on the updated tree analysis in the figure above, several explanations can be drawn. First, lack of support for employee growth and empowerment. This comes from a leadership style that heavily emphasizes seniority. The leadership approach does not foster an environment conducive to employee empowerment and growth. This unit also fails to share information with networks of experts outside the organization regularly and lacks forums for meeting and learning from experts in other departments, teams, or divisions. Additionally, post-audits and after-action reviews are not regularly conducted, limiting opportunities for improvement and learning. Second, Deficiencies in the structure of the Talent Management program process. Deficiencies in structured talent
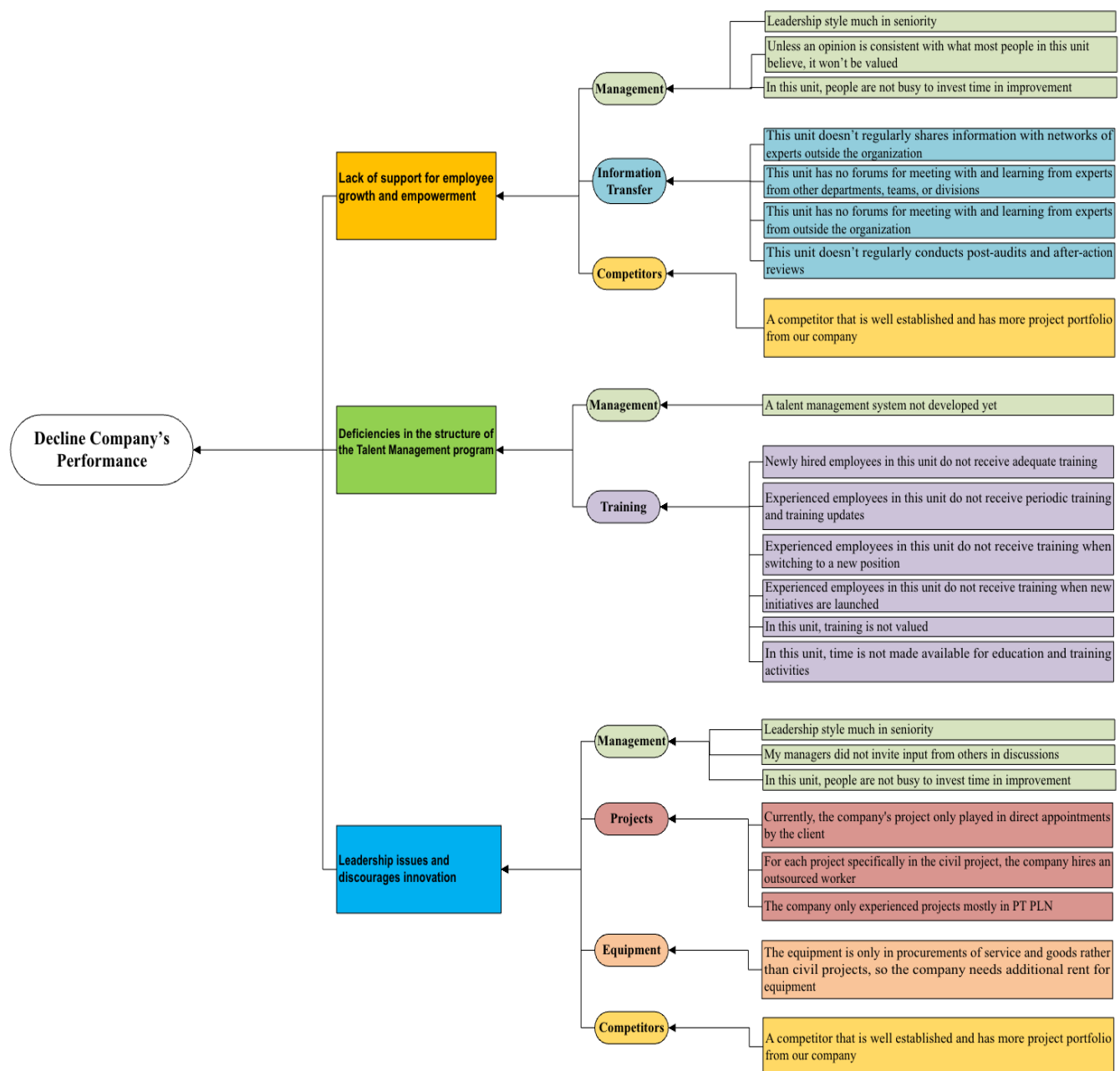

Figure 5. Updated Tree Analysis

management processes. A comprehensive talent management system has not yet been developed. Newly hired employees do not receive adequate training, while experienced employees miss out on periodic training and updates. Moreover, experienced employees do not receive training when switching to new positions or when new initiatives are launched. Training is not valued in this unit, and time is not allocated for education and training activities, significantly hindering employee development and overall performance.

Third, Leadership issues and discourages innovation. Managers do not invite input from others in discussions, leading to a lack of collaborative problem-solving. Because the company's projects are limited to direct appointments by the client, and for civil projects, the company relies heavily on outsourced workers. The company has primarily experienced projects within PT PLN, which limits its diversification and growth opportunities. Equipment procurement is focused only on services and goods rather than civil projects, necessitating additional rental expenses for equipment. Furthermore, a well-established competitor with a more extensive project portfolio poses a significant challenge.

D. Knowledge Management Framework

The knowledge management framework visualizes components to solve problems and reach the company's goal. The components are company goals, KM objectives, KM Strategy, Action, Critical Knowledge, People, Process, and Technology. For company goals, it defines the solution to the problem. KM objective is to visualize the main objective from company goals using KM's perspective. KM strategy is the implementation strategy that aims to achieve the objective. Action is something to do to reach KM strategy implementation. Critical knowledge means the knowledge that is needed for action. People means whoever is involved in reaching company goals. The process is the highlight of action. Technology refers to the media and technology used to reach the company's goal.

The KM's objective in first phase is to enhance the directors' leadership skills to improve their talent management skills and enforce employee development. KM's strategy is to engage the directors' with education and training. Hence, to fulfil KM's strategy, the first action is to organize a leadership forum where directors can share their experiences and learn from each other. This initiative promotes pedagogical innovations, partnerships and collaboration, and community engagement. The second action is to develop a leadership skills framework with contributions from all directors. This collaborative effort will leverage technology integration and data analytics to create a comprehensive framework to enhance cultural competence, promote continuous professional development, and improve leadership and change management capabilities. The third action is implementing new leadership strategies based on the developed framework and assessing their impact on the organization. The company also emphasizes adaptability, resilience, and thorough assessment and evaluation to ensure the effectiveness of these strategies. The people involved in this initiative include trainers, experts, and directors. The process will begin with developing the KM team initiative by gathering all directors and employees to brainstorm and strategize KM improvements, and next, identifying the leadership skill areas most suitable for the company. The company will then conduct training sessions with experts or trainers outside the organization. The company utilizes meetings, video conferencing, networking events, and informal discussion groups to support these phases.

The second phase is the talent management program, which aims to manage skill forge. The KM objective is to allow the employee to learn from the director, trainer, and experts outside the organization to enhance the employee's skills to meet job requirements. The KM Strategy to do this is to engage the education and training of the employees and deliver them appropriately. The first action is to conduct focus group sessions to identify skill gaps and training needs. This step ensures the company understands the areas requiring development. comprehensive and practical training programs suitable for the company's needs. The third action involves implementing the designed curriculum and training guidelines. This requires effective change management, technology integration, resource allocation, mentorship, and coaching guidelines to deliver the training appropriately and efficiently. The fourth action is to innovate and evaluate training methodologies by conducting brainstorming sessions and gathering insights and suggestions for continuous improvement using feedback mechanisms. The fifth action is tracking and evaluating employee performance post-training. This will allow the company to assess the impact of the training, using performance-tracking tools to ensure continuous improvement. This initiative involves trainers, directors, and employees. The process begins with designing training guidelines for mentors and mentees and then designing and implementing the curriculum. Then, the training will be delivered to employees, and participant feedback will be evaluated. Lastly, the company will assess the impact of training on employee performance. The company will utilize meetings, video conferencing, and performance-tracking tools.

Table I. Knowledge Management Framework

Company Goals	KM Objective	KM Strategy	Action	Critical Knowledge	People	Process	Technology
Leadership and Innovation	Enhance the director's leadership skills to improve their talent management skills to support talent development and employee growth in the organization	Engage the director's education and training	Organize a leadership forum where directors can share experiences and learn from each other	Pedagogical innovations	Trainer, Expert & Directors	1. Develop the KM team initiative by gathering all the directors and employees for KM improvement in this organization 2. Identify the leadership skill areas that are more suitable for the organization needs 3. Conduct training sessions with experts from an outside organisation or trainer 4. Implement output from leadership training to the organization	Meetings, Video Conference, Networking events and Informal discussion groups
				Partnerships and collaboration			
				Community engagement			
			Develop a leadership skills framework with contributions from all directors	Technology integration			
				Data analytics			
				Cultural competence			
				Continuous professional development			
			Implement new leadership strategies and assess their impact on the organization	Leadership and change management			
				Adaptability and resilience			
				Assessment and evaluation			
Talent Management Program	To provide the employee to learn from the director, trainer, and experts from outside the organization to enhance the employee skills that meet job requirements	Engage the education and training of employees	Conduct focus group sessions to identify skill gaps and training needs	Skills Assessment	Trainer, Director & Staff	1. Design the training guidelines for mentors and mentees 2. Design and implement the curriculum 3. Deliver the training to employee 4. Evaluate the feedback of training by gathering information from participants 5. Assessing the impact of training on employee	Meetings, Video Conference, and Performance tracking tools
			Develop training methodologies and curriculum design through collaborative discussion	Curriculum Design			
				Training Methodologies			
			Implement the designed curriculum and training guidelines and deliver it appropiately	Change Management			
				Technology Integration			
				Resource Allocation			
				Mentorship and Coaching			
			Conduct brainstorming sessions to innovate and evaluate training methodologies	Feedback Mechanisms			
			Track and evaluate employee performance post-training to assess the impact	Performance Tracking			
				Continuous Improvement			
Employee Growth and Empowerment	To develop and enhance the learning organization behavior and knowledge management for improving employee engagement and performance	Implement KM Strategy	Develop guidelines for working on projects in cross-functional teams	Encouraging collaboration	Director & Employees	1. Implement new changes from the KM team initiative. 2. Gathering feedback from employees about the leadership impact on the organization 3. Evaluate the feedback gathered from employee	Video conference and meetings, Feedback tools, and Performance metrics
				Offering incentives and recognition for collaboration			
			Integrate a KM system, allowing easy acces to shared documents and resources	Implementing collaborative tools and technologies			
				Technology integration			
			Encourage the practical application of new collaborative behaviors and tools	Managing change effectively			
				Encourage employee engagement			
			Organize mentorship circles where experienced employees share their knowledge	Promoting open communication			

The third phase is Employee growth and empowerment, which aims to develop and enhance learning organization behavior and knowledge management to improve employee engagement and performance. The strategy implements the KM strategy to help the company reach its goals. The first action due to the KM strategy is to create guidelines for working on projects in cross-functional teams. These guidelines will be essential in encouraging collaboration and recognizing contributions. The company aims to build a supportive and cooperative environment by offering incentives and recognition for effective collaboration. The second action is for the company to integrate a KM system that allows easy access to shared documents and resources. This will involve implementing collaborative tools and technologies, ensuring technology integration to enhance productivity and knowledge sharing across the organization. The Third action is to reinforce the adoption of these new collaborative behaviors and tools. Effective change management and enhanced employee engagement will be crucial in this phase to ensure transitions and acceptance. The fourth action is to organize mentorship circles where experienced employees can share their knowledge, promoting open communication and continuous learning within the team. This initiative will involve both directors and employees. Following this, the company will implement the changes proposed by the KM team. The outcomes within the organization will be implemented, and employee feedback will be gathered to assess the impact of the new leadership strategies. The company will utilize video conferencing and regular meetings to facilitate communication and collaboration.

E. SECI Model

The proposed SECI Model aims to determine the action phase in the socialization, externalization, combination, and internalization phases.

Socialization: This phase involves sharing tacit knowledge through direct interaction, such as mentoring or informal conversations. It emphasizes the importance of personal experiences and social contexts in knowledge-sharing. The activities are follows: Conduct focus group sessions to identify skill gaps and training needs, Organize mentorship circles where experienced employees share their knowledge, and Organize a leadership forum where directors can share experiences and learn from each other.

Externalization: In this stage, tacit knowledge is articulated into explicit knowledge. This can involve creating documents, models, or other forms of representation that make the knowledge accessible to others. Here are the activities: Develop training methodologies and curriculum design through collaborative discussion, Develop guidelines for working on projects in cross-functional teams, Conduct brainstorming sessions to innovate and evaluate training methodologies, and Develop a leadership skills framework with contributions from all directors.

Socialization

- Conduct focus group sessions to identify skill gaps and training needs.

- Organize mentorship circles where experienced employees share their knowledge.

- Organize a leadership forum where directors can share experiences and learn from each other.

Externalization

- Develop training methodologies and curriculum design through collaborative discussion.

- Develop guidelines for working on projects in cross-functional teams.

- Conduct brainstorming sessions to innovate and evaluate training methodologies.

- Develop a leadership skills framework with contributions from all directors.

Combination

- Implement the designed curriculum and training guidelines.

- Integrate a knowledge management system, allowing easy access to shared documents and resources.

Internalization

- Encourage the practical application of new collaborative behaviors and tools.

- Track and evaluate employee performance post-training to assess the impact and make necessary adjustments.

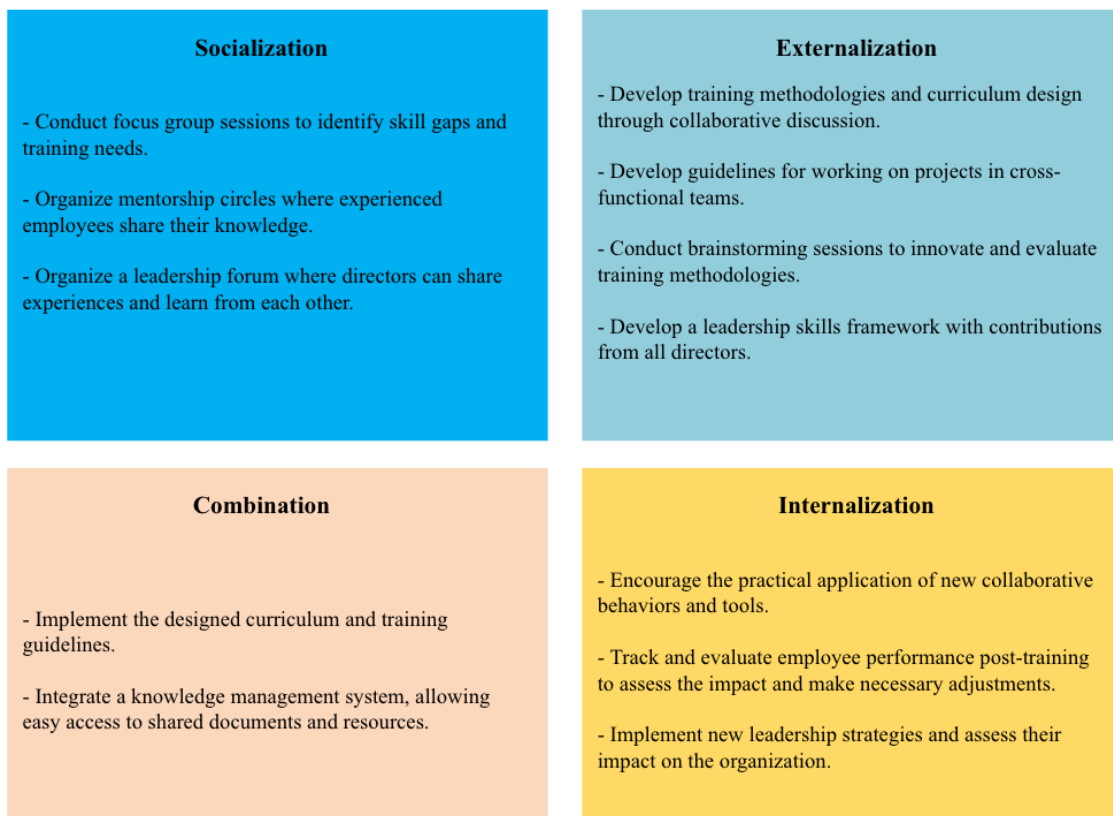- Implement new leadership strategies and assess their impact on the organization.

Figure 6. Proposed SECI Model

Combination: This phase integrates different pieces of explicit knowledge to form new knowledge. This can involve synthesizing information from various sources, such as reports or databases. Here are the activities: Implement the designed curriculum and training guidelines, Integrate a knowledge management system, allowing easy access to shared documents and resources.

Internalization: In this stage, practice and experience transform explicit knowledge into tacit knowledge. Individuals learn by doing, reinforcing the knowledge gained through the previous stages. Here are the activities: Encourage the practical application of new collaborative behaviors and tools, Track and evaluate employee performance post-training to assess the impact and make necessary adjustments, Implement new leadership strategies and assess their impact on the organization

F. KM Implementation Plan

Table 2. Proposed Timeline KM Implementation Plan

Phase	No	Activities	PIC	Proposed Timeline											
				1	2	3	4	5	6	7	8	9	10	11	12
KM Strategies Implementation for Company		**KM Preparation for Internal Company**													
	1	Designing KM Team initiative	Director	■											
	2	Designing mentoring and training program	KM Team		■	■									
		Designing Guidelines and Curriculum													
	3	Analyze the skill needed for the company	KM Team			■	■								
	4	Creating guidelines for training and mentoring	KM Team				■								
	5	Develop curriculum for training and mentoring	KM Team				■								
		KM System Implementation													
	6	Delivering the training and mentoring	KM Team				■	■	■	■					
	7	Develop employee-management side to side feedback program	Director					■	■						
	8	Improving training knowledge based on previously delivered training	KM Team						■	■	■				
	9	Develop the performance tracking tools	Director							■	■	■			
		KM System Evaluation													
	10	Evaluate the effectiveness of training and mentoring	KM Team								■	■	■		
	11	Evaluating the effectiveness of feedback program	KM Team										■	■	■

According toTjakraatmadja & Kristinawati, 2017, there are two main phases in implementing the KM strategy. First is to prepare the program of KM implementation and second is KM implementation strategy. In this research, Stage 1 – 2 is the first phase and Stage 3 - 4 is the second phase. Stage 1, KM Preparation for Internal Company: This stage takes three months to complete. First, Designing KM Team Initiative. These activities take one month to complete. The initial phase involves forming a Knowledge Management (KM) team, which includes planning and organizing the team structure and responsibilities. Second, Designing Mentoring and Training Programs. These activities need two months after the KM Team Initiative has been established. The KM team will design a comprehensive mentoring and training program to support the initiative. This includes identifying critical areas for development and structuring the program accordingly.

Stage 2, Designing Guidelines and Curriculum: This stage requires two months of work. Analyze the Skills Needed for the Company. After the guide, these activities will take two months. The KM team will analyze and identify the skills required for the company. This analysis will help tailor the training and mentoring programs to meet the organization's needs. Creating Guidelines for Training and Mentoring. These activities need one month to do. Based on the skills analysis, the KM team will create detailed guidelines for the training and mentoring programs, outlining the processes and methodologies to be used. Develop a Curriculum for Training and Mentoring. These activities need one month to complete and are parallel with creating guidelines for training and mentoring. The KM team will develop a curriculum for the training and mentoring programs. This curriculum will include the content, activities, and assessments necessary to achieve the desired outcomes.

Stage 3, KM System Implementation: This stage needs six months length. Delivering the Training and Mentoring. These activities will take four months to complete. The organization will receive the training and mentoring programs per the developed curriculum and guidelines. Develop Employee-Management Side-to-Side Feedback Program. These activities need two months to do. A feedback program will be developed to facilitate communication between employees and management, allowing for real-time feedback on the training and mentoring programs. Improving Training Knowledge Based on Previously Delivered Training. These activities need three months to complete. The KM team will review the training sessions delivered and identify areas for improvement, enhancing the training content and methods based on feedback and observations. Develop the Performance Tracking Tools. These activities require three months to complete. A performance track needs to be developed to monitor the progress and effectiveness of the training and mentoring programs. These tools will help assess the impact on employee performance.

Stage 4, KM System Evaluation: This stage requires five months of work. The evaluation of the Effectiveness of Training and Mentoring takes three months. The KM team will use performance-tracking tools and feedback to evaluate the effectiveness of the training and mentoring programs. Evaluating the Effectiveness of Feedback Program. These activities need three months to complete. The final step involves evaluating the feedback program to ensure it effectively facilitates communication and contributes to continuous improvement of the training and mentoring initiatives.

V. CONCLUSION

The study "Build a Learning and Leadership Ecosystem using a Knowledge Management Perspective at PT Tri Satya Jaya" highlights significant company challenges, particularly in performance decline and ineffective employee collaboration. SWOT, LO Survey, and Tree Analysis are used to analyze the root causes of the decline in company performance. It is all summed up in three things: Leadership issues and discourages innovation, Deficiencies in the structure of the Talent Management program process, and Lack of support for employee growth and empowerment. The proposed KM strategies start from the root cause of the tree analysis and are synthesized into the KM Framework. This framework focuses on identifying Critical Knowledge, facilitating Knowledge Sharing, and Supporting Continuous Learning. After knowing the company's activities, the next step is to plot which activities in The SECI Model (Socialization, Externalization, Combination, Internalization) play a vital role in the KM framework by providing a structured approach to knowledge creation and sharing. The implementation plan was built into a one-year timeframe. The main activities are divided into four stages: Stage 1 is KM Preparation for Internal Company, Stage 2 is Designing Guidelines and Curriculum, Stage 3 is KM System Implementation, and Stage 4 is KM System Evaluation.

VI. RECOMMENDATION

The recommendations revolves around identifying skill gaps, optimizing training methodologies, and strengthening leadership competencies, ultimately driving sustainable organizational growth and success.

1. Establish a Knowledge Management Team. Form a dedicated KM team responsible for overseeing the implementation of knowledge management initiatives.
2. Invest in Leadership Development Programs. Implement training programs to develop effective leadership skills that support continuous learning and employee empowerment. Leaders should be trained in transformational and participative leadership styles to foster a more inclusive organizational culture.
3. Create a Structured Mentoring Program. Establish peer mentorship initiatives where experienced employees are paired with newer or less experienced staff. This facilitates knowledge transfer and builds relationships and a sense of community within the organization, enhancing employee engagement and retention.
4. Enhance Human Capital Investment. Design and deliver training programs tailored to the organization's needs, as identified in the skills analysis. Prioritize training and development programs to improve employees' skills and competencies. This investment is crucial for fostering a knowledgeable workforce that can adapt to changing project demands and contribute to the company's growth.
5. Utilize Technology for Knowledge Management. Invest in a digital knowledge management system that facilitates knowledge documentation, sharing, and retrieval. This system should be user-friendly and accessible to all employees to encourage participation.
6. Establish Performance Tracking and Feedback Mechanisms. Develop tools to monitor the effectiveness of training and mentoring programs and the overall impact of knowledge management initiatives on employee performance. Establish regular feedback loops to gather insights for continuous improvement. This will help identify areas for improvement, recognize high performers, and ensure that the organization stays focused on its objectives.

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