

Knowledge Management on Employee Engagement: Participial Leadership as Mediation Variable

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ABSTRACT: *This study is about the relationship between knowledge management on employee engagement and participative leadership as a mediation variable. This research uses a mixed method: firstly, doing interviews with informants such as managers or heads of departments in three different companies and analyzing the interview by using thematic analysis. After obtaining the result of the interview, the next step is to give questionnaires to employees in companies. The research model and hypotheses have been tested by partial least squares-structural equation modeling (PLS-SEM). The result in qualitative indicates that it's widely accepted that knowledge management is a crucial organizational function. Emphasizing both explicit and tacit knowledge, the organization places a high priority on converting individual skills into shared assets in order to foster learning and operational efficiency across departments. This knowledge management practice can help employee engagement in companies and also, with the help of participative leadership, can make employees more comfortable doing their jobs. This result also confirms the result of a quantitative hypothesis that knowledge management positively affects employee engagement and also knowledge management positively affects participative leadership and also that participative leadership plays minor role in mediation of the relationship between knowledge management on employee engagement.*

KEYWORDS - *knowledge management, knowledge sharing, knowledge management systems, employee engagement, participative leadership*

I. INTRODUCTION

The development of a company is now very rapid, and companies compete to have employees who have broader knowledge both for their work and even for the progress of a company. In this case, knowledge management is expected. Knowledge management is a system that can help organizations process knowledge to support decision-making so that organizations can become smarter. As knowledge sharing itself is a self-motivated and proactive behavior, employees will be more likely to share work-related ideas and expertise with their co-workers only when they are dedicated to their work and enthusiastic about it. Because knowledge sharing can drive engagement, understanding what motivates employees to have a positive attitude has become a hot research issue and a challenging aim for organizations (Fait et al., 2021). Knowledge sharing is a specific knowledge transfer process based on an intrinsic motivation to offer something from personal experience to others (Dabija et al., 2024). The result from (Onyango et al., 2022) shows that making employees responsible for their career advancement through knowledge management is a highly effective approach to increasing employee engagement since it helps them feel valued for their efforts and confident in their abilities. Through suitable knowledge management processes and retention tactics, knowledge management can assist organizations in preventing knowledge loss. Knowledge management facilitates employee learning, and employees are more focused on effectively completing their responsibilities and achieving job satisfaction, resulting in increased employee engagement.

To have broad knowledge, companies carry out various methods to increase the knowledge of their employees, namely by conducting training, coaching, mentoring, focus group discussions or CoP (Communities of Practices). By having a good knowledge management hope it will increase employee engagement. Employee engagement refers to an organizational approach to managing human resources, and it represents the whole picture of employees' working experience with their job as well as their organization (Kossyva et al., 2023). Engagement may be an employee's status that stems from the social exchange at work and ends with higher organizational performance. An employee shows a higher performance when he finds meaning in work, company culture, and policies (Setyo et al., 2021).

Participative leader behavior is likely to encourage and motivate team members to adopt even challenging goals that might help improve service (Ali et al., 2020). This research was conducted at BPPK (Badan Pelatihan dan Pengembangan Keuangan), Pegadaian (Work Culture Division and Corpu Division) and BPMJP (Balai SDM Metrologi, Mutu, dan Jasa Perdagangan). At Pegadaian they use Gallup's theory to measure employee engagement, while at BPPK for knowledge management, they use their own framework which is like

a house where there is a foundation (strategic plan, identifying tacit knowledge, strengthening MP actors in the Work Unit), pillars (Knowledge Management System, identification, documentation, organization, dissemination, implementation, monitoring, ecosystem) and a roof. This component aims to provide an overview of the knowledge management implementation process in accordance with the Minister of Finance Regulation Number 226 / PMK.011 / 2019 with the ultimate goal of:

1. Realizing synergy between units in sharing knowledge;
2. Realizing a culture of knowledge sharing; and
3. Maintaining the intellectual assets of the organization.

The research objectives of this research are the complex relationship between knowledge management and employee engagement is examined in this research, with an emphasis on participative leadership mediating function. By examining how effective KM practices and participative leadership together influence employee engagement, this study looks at how successful knowledge management methods and participative leadership work together to improve employee engagement.

The research question in this research as follows :

1. How does knowledge management affect employee engagement, which is moderated by participative leadership in the company?
2. What factors need to be analyzed in knowledge management to affect employee engagement?

II. LITERATURE REVIEW

2.1 Knowledge Management

As knowledge is difficult to measure or audit, businesses must successfully manage it to fully use the skills and experience inherent in their systems and structures and the tacit knowledge held by their personnel. It is a process that assists organizations in finding, selecting, organizing, disseminating, and transferring vital information and knowledge necessary for operations, according to Di Vaio et al. (2021). The importance of KM lies in its ability to create a collaborative environment where knowledge is valued and readily accessible (Ode & Ayavoo, 2020). Knowledge management success can be greatly increased by an organizational culture that values and encourages creativity. Encouragement of innovative thinking and fresh ideas for process enhancement among staff members can result in the efficient creation and application of important knowledge assets.

2.1.1 Knowledge Sharing

The academic indulgence of employee engagement and knowledge sharing as an important foundation for organizational performance. As a result, management should know about having the right procedures, processes, mechanisms, and structures that can increase employee engagement and this will lead to the accomplishment of organizational objectives and goals. Employees are an important asset for any organization. If they do not have enough space and time to combine work and pleasure at work, then disengagement may be found between employees (Ahmed et al., 2020). This combination converts explicit knowledge to other explicit knowledge by systemizing concepts into a knowledge system. Internalization can be explained as 'learning by doing', representing the conversion from explicit knowledge to tacit knowledge (Nonaka and Takeuchi, 1995). Knowledge sharing is a specific process of knowledge transfer based on an intrinsic motivation to offer something from personal experience to some other people (Dabija et al., 2024). Knowledge management in this study, which includes knowledge sharing, knowledge creation, knowledge management system and CoP (Communities of Practice), can influence employee engagement. This is supported by previous researchers Robert et al (2022), who stated that firms can only improve their knowledge management techniques to increase employee engagement. Making employees responsible for their own career advancement through knowledge management is a highly effective approach to increasing employee engagement since it helps them feel valued for their efforts and confident in their abilities. Also, there is knowledge creation. The concept of knowledge creation lacks consensus regarding the definition, with scholars offering diverse interpretations. From a capability perspective, Nonaka (1994) has proposed that organizational knowledge creation involves an organization's capability to generate, disseminate, and embody new knowledge within products, services, and systems.

2.1.2 Knowledge Management System

Employees may discover value in using and sharing knowledge if they believe that KMS not only contributes to their work outcomes but also helps to minimize the additional effort required to share, retrieve, and use knowledge. The perceived usefulness of KMS can help employees work together more rapidly to navigate difficult situations and share their knowledge. If employees believe that KMS will be useful, they are more likely to use it (Ali et al., 2024). Managing organizational knowledge utilizing a set of information systems is referred to as knowledge management systems. These are the systems based on the IT processes supporting and increasing the efficiency of organizational knowledge management processes (creation, storage, transfer, and application) (Volodymyrovych et al., 2021). However, previous research rarely talked about the

Knowledge Management System as one of the ways to help employees to store, share and strengthen their knowledge so that they can learn every time they want.

2.1.3 Communities Of Practices

Three elements are necessary for a community to become a community of practice: a shared domain of interest, engagement in support of community members, and a sharing of practice. CoPs can be informal and benefit from informal learning, however, they can also be formally established for a specific purpose, within an organization for example (Marx et al., 2021).

H1: Knowledge management positively affects employee engagement

2.2 Participative Leadership

Participative leadership style claims that participatory leaders tend to focus on the growth and well-being of subordinates, which can be attributed to their sensitivity to subordinate needs. As a result of their interpersonal relationship with their subordinates, leaders influence an increase in employee loyalty (Khassawneh & Elrehail, 2022). Participative leadership involves employees in the process of problem solving and decision-making through encouragement, resource provision, support, and influence. Participative leaders prefer consultation over direction, pursue consensus building, require employees to take a certain amount of responsibility, and practice self-management (Peng et al., 2023). All leaders stated that they have good relationships and maintain formal and informal communication with employees, which implies that leaders project the qualities of participative leadership style, transformational and transactional, which has a direct effect on satisfaction, leading to increased levels of engagement. Most leaders suggested that empowerment and decision making will have a significant positive impact on employee engagement. Participative leadership is a democratic leadership that involves subordinates in organizational decision-making and management, with the aim of effectively enhancing employees' sense of ownership and actively integrating their personal goals into organizational goals. Participative leadership is also characterized in practice by the following features: first, in the process of employee participation in decision-making, leaders and subordinates are on an equal footing and trust each other completely, and organizational issues are resolved through democratic consultation. Second, in general, although participative management involves a wide range of employees in decision-making, the final decision is still made by the leaders (Wang et al., 2022). The participative leadership of supervisors can increase their followers' psychological availability that Kahn (1990) proposes as an antecedent of engagement (Huang et al., 2021).

H2: Knowledge management positively affects participative leadership

2.3 Employee Engagement

Employee engagement is the degree of his/ her attachment to the organization and how they identify themselves towards it. It has also been reported that employee engagement can occur when people are engaged in their work, and they are concerned and enthusiastic about their job and position and willing to put a lot of effort into (Islam & Babgi, 2023). Employees are fully involved at various levels of the organization, providing resources to the organization that are cognitive, emotional, and physical. The benefits felt by companies from this involvement include contributing new ideas and technological innovations (Azmy, 2024).

The employees are classified into three main groups based on their engagement levels. First and foremost, "engaged employees" are strongly invested in and excited about their work and workplace; they perform well and contribute to the company's success. Secondly, 'not engaged employees are not attached psychologically to their job and organization, they spend time at work, but they do not showcase passion in their work. Lastly, 'actively disengaged employees are the ones who are just unhappy at work; they are indignant that the company does not fulfill their needs (Gallup, 2020). Engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior. Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work' (Schaufeli, Salanova, González-Romá & Bakker, 2002).

Previous researchers stated that the relationship between participative leadership and the three dimensions of employee engagement (vigor, dedication, and absorption) were positive when controlled for tenure. The importance of participative leadership practices, such as making it possible for participation in decision-making, training, trust in a manager, and authentic leadership as drivers of employee engagement (Usadolo, 2020). There is a mediating role for participative leadership in the relationship between non-work-related stress, and social and affective engagement. Even when the factors causing employee stress are external, meaning they are not work-related, the participative leadership style will be able to reduce the impact of that stress on employee engagement (Alsomaidae, 2023).

H3: Knowledge management positively affects employee engagement by moderation through participative leadership.

III. RESEARCH METHODOLOGY

3.1 Research Design

This research will use a mixed method design by Creswell (2014), integrating qualitative and quantitative data to explore the relationship between knowledge management, employee engagement, and participative leadership as a mediation variable. Combining these methods provides a comprehensive understanding of how knowledge management practices influence employee engagement and how participative leadership mediates this relationship. The researcher conducts a qualitative research phase, including the manager or supervisor, to identify more detail about knowledge management, participative leadership, and employee engagement in the company. For this, the researcher will conduct interviews—the interviews in this research will be conducted by conducting in-depth interviews with key informants of one or two managers or equivalents in a company. Moreover, the quantitative part will involve a survey distributed to employees across various departments. The survey participants will be selected using simple random sampling to ensure that the same levels and roles within the organization are represented. Figure 1 explains the research design of this study.

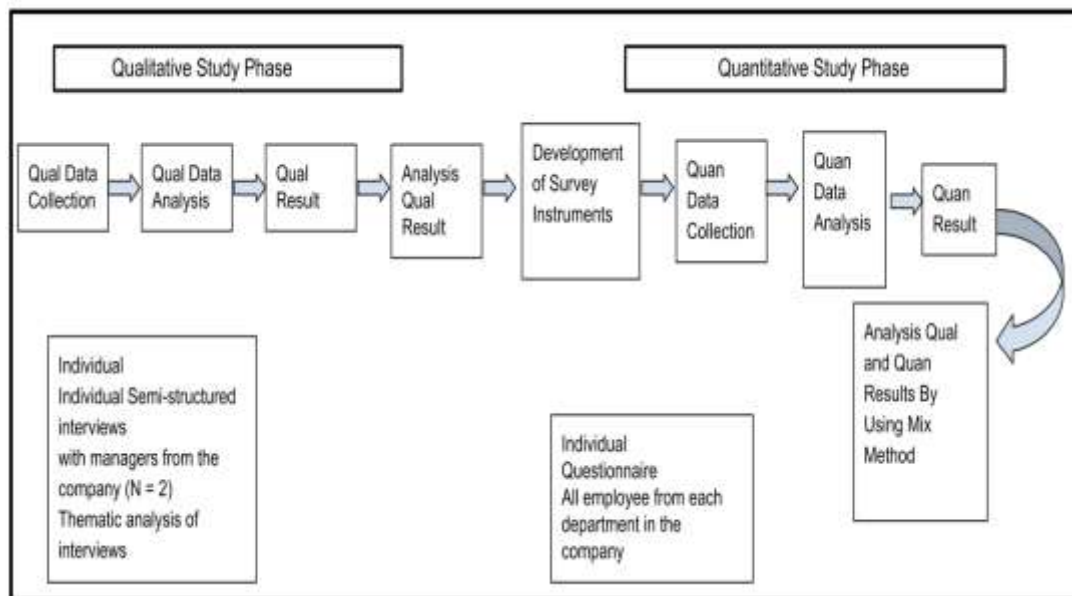


Fig 1. exploratory sequential mixed-methods research design

Exploratory mixed-method design is done when Qual is collected first and prioritized, and Quan data is then later collected to test themes or instruments developed from the Qual process (Creswell, 2008). Key informants are selected due to their ability to help the researcher understand cultural patterns, often providing background information that is inaccessible, implicit, or inefficient to identify through document reviews or other partial accounts (Marshall, 1996; Poggie Jr, 1972). Samples in qualitative research tend to be small in order to support the depth of case-oriented analysis that is fundamental to this mode of inquiry (Sandelowski, 1996). Additionally, qualitative samples are purposive, that is, selected by virtue of their capacity to provide richly textured information relevant to the phenomenon under investigation (Vasileiou et al., 2018).

3.2 Qualitative Data Collection

The primary data source is in-depth interviews with 5 key informants from the three selected companies, selected by including managers, heads of departments, and heads of agencies. The researchers transcribed all interviews and kept notes and records of our observations and participation in seminars. The data analysis processes include the comparison and interpretation of interview transcripts. Coding starts with a description of small parts of the data, such as lines, sentences, paragraphs, or words (Deterding & Waters, 2021). All data are coded and analyzed using thematic analysis (Raja et al., 2018; Sklyar et al., 2019), and emerging nodes and concepts can gradually be incorporated into the analysis. The data are obtained after saturation is achieved.

Table 1. Demographics Informants

Group	Company	Informants	Coding	Number	Duration	Interview Themes
1	BPPK	Managers	M	2	153mins	1. Knowledge management 2. Participative leadership 3. Employee engagement
2	Pegadaian	Head of Departments	HD	2	83mins	
3	BPMJP	Head of Agency	HA	1	60mins	

3.3 Quantitative Data Collection

For quantitative, the research gives questionnaires to employees in each division this is to confirm the results that the researchers get after analysis of the interview results.

Table 2. Descriptive Analysis

Characteristics	N	%
Gender		
• Male	29	54.7
• Female	24	43.5
Age		
• < 20 Years	0	0
• 21-30 Years	9	17
• 31-40 Years	33	62.3
• 41-50 Years	9	17
• > 50 Years	2	3.8
Education		
• SMA	0	0
• DIPLOMA (D1/D3/D4)	11	20.8
• S1	22	41.5
• S2	19	35.8
• S3	1	1.9
Length of Work		
• < 1 Years	0	0
• 1-3 Years	1	1.9
• 4-6 Years	13	24.5
• 7-10 Years	6	11.3
• > 10 Years	33	62.3
Work Unit		
• Digital Culture	14	26.4
• TIKMP BPPK	4	7.5
• SDM KI BPPK	22	41.5
• BPMJP	13	24.5

The total number of respondents used in the study was 53 (table 2). Collecting data using a questionnaire instrument designed using a Likert scale and first tested for validity and reliability.

IV. RESULT

The qualitative method involves interviews with 1-2 informants from 3 companies. This results from 5 informants (Managers, Heads of Departments, and Head of Agency) with different divisions and companies.

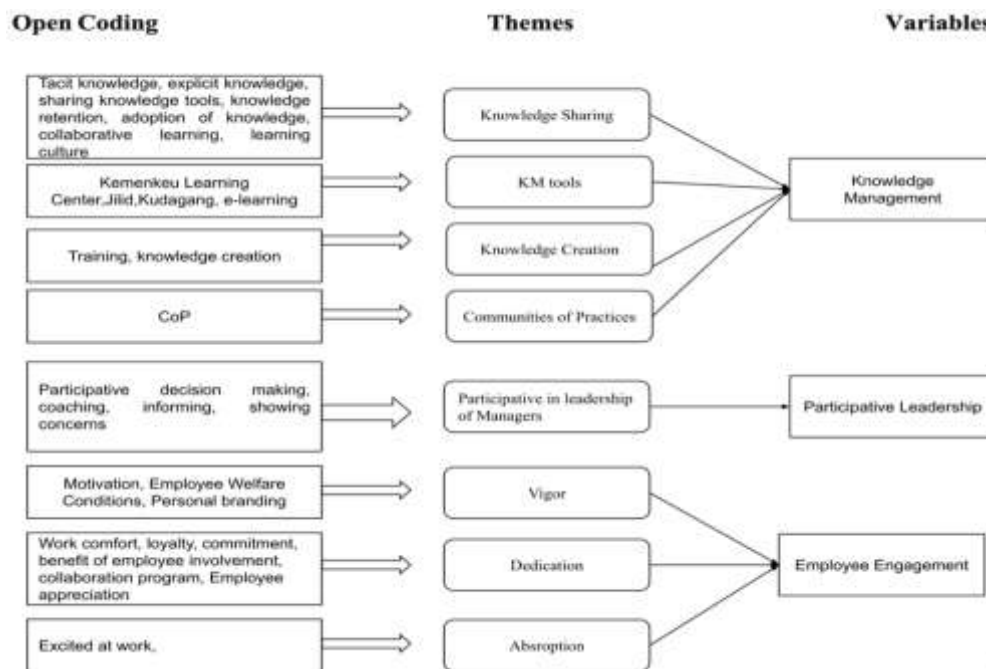


Fig 2. result of interview coding

4.1 Qualitative Analysis

4.1.1 Knowledge Management

Based on the coding, the research finds that, first, how knowledge management in each company are. The purpose of this is to find out the implementation of knowledge management in a company. And what the managers know about that.

Their response are present as follow:

"I consider Knowledge Management as a manager. Well, what is KM itself, if we talk about it from a theoretical perspective, is how we can manage the tacit knowledge that exists in the BPPK environment. Well, tacit knowledge itself may have been described, starting from knowledge information data to wisdom. For me, managing what may be the same in terms of wisdom, how we can process some tacit knowledge that is owned by employees at BPPK so that we can transform it into explicit knowledge so that it can be a learning experience for others." M 1

"For example, how to carry out the identification process to monitoring of Knowledge Management, what platform is used, how the process is documented, how the process is categorized, distributed, and utilized – the regulations are given as our part of the task and responsibility here. Well, if asked about the implementation of Knowledge Management in BPPK, well, currently for the process, if Ms. April looks at the Knowledge Management System itself, currently there are around 14,000 intellectual assets, meaning the knowledge that is created is there." M 2

"If we have product knowledge, maybe this knowledge management is more for knowledge related to Pegadaian products." HD 1

"Well, it has been arranged for the knowledge management for internal purposes, we make adjustments according to the needs of each division or each section. So if later on the section is an operational personnel who takes care of trade or sales issues, sales or customer service, that knowledge falls to the personnel in the field." HD 2

"Well, in the Ministry of Trade, for the internal Ministry of Trade itself, it will be created in Kudagang. So overall, our knowledge management system is there. Now, what if Ms. April asked earlier that in BPMJP itself, of course the LMS is the same, namely the Kudagang LMS." HA

The informants illustrate the KM practices focused on the conversion of tacit to explicit knowledge, structured regulatory processes, divisional customization, and cross-department. Each organization's approach reflects its unique operational priorities, which is in line with KM theory by contributing to creating a robust knowledge-sharing culture and enhancing organizational learning. Knowledge management is acknowledged as an essential organizational function. In order to promote learning and operational efficiency across departments, the organization prioritizes the transformation of individual expertise into shared assets, emphasizing both explicit and tacit knowledge. Moreover, having a Knowledge Management System (KMS) in each company helps them to identify and document. The researcher found that having this as one of the tools of KM affect employee engagement. The informants confirm by saying this:

"Well, at the beginning of the implementation, we thought that this had to be forced first to get them used to entering knowledge and later they could see that oh this knowledge could be useful. Well, that's how it works. Then next we increase the engagement, meaning don't just make the lectures mandatory. Can we mandate all employees to organize their knowledge, organize their intellectual assets At that time, we didn't limit it, for example, it has to be in the form of tacit knowledge, yes, it has to be in the form of what you already know and put in there, but we want to build a culture that creating intellectual assets isn't that difficult." M 1

"We do indeed for routine purposes, every employee is required to follow e-learning which is held almost every two weeks for all new fields of knowledge. And all divisions make policies, the policies are delivered to all employees through e-learning as a form of increasing understanding - so asked, answered, asked, answered like that - besides being required to read the rules through our tools which are already available to accommodate all existing policies." HD 2

"The second knowledge sharing is one-on-one, for example, like coaching mentoring, yes. There is an employee who has to do , but he can't do it yet, so it will be shared from the employee who already knows to the employee concerned." HA

From the interview results, it was found that using KM tools can facilitate employee access to knowledge management where this helps in the training process, increasing competence by supporting a culture of knowledge sharing that affects employee engagement. Making employees responsible for their own career advancement through knowledge management is a highly effective approach to increasing employee engagement since it helps them feel valued for their efforts and confident in their abilities (Onyango et al, 2022).

"Competency development is like this, we have a collaborative learning culture, one form of which is knowledge sharing. Since the pandemic until now, several units are still implementing the collaborative learning culture, knowledge sharing. Now when they do knowledge sharing or maybe do other types of learning, we ask them to use the AI in KMS." M2

"Because I have this view, what we encourage is the tacit knowledge of each employee, their experience in doing the job. Well, that's what they share with others to create enthusiasm." HD 2

"Yes, until now if there is no specific program they do not get it, as long as they are aware of giving their knowledge to other friends - which we are definitely campaigning for. So there is no reward related to knowledge because it is part of developing their engagement." HD 1

When employees are actively involved in knowledge sharing, they feel valued by the company, connected to the other employee. This can make employees more enthusiastic about their job.

"Regarding knowledge sharing at BPMJP, firstly for knowledge sharing in the organization, I actually ask every employee who takes part in the training to share the materials they get, not only in the training but also in socialization or other activities, to provide information and upload the information." HA

Knowledge sharing doesn't stop in a few employees but every employee should get the same information to make them more engaged in their work. Employees just not upload just on the materials that they got on training but also it can be from other activities too.

4.1.2 Participative Leadership

The results above show that knowledge management can increase employee engagement. From the result of the interview, the research found that having participative leadership also helps increase employee engagement. Leadership that listens to employee opinions and ideas before making decisions. This is what the informants said:

"So I am naturally a team-oriented person so that we can all work together to support each other. If I am that type, I will discuss and explore a lot. My co-workers usually have the resources, reasons, and data to make a decision on what we should do in the future." HD 2

"Yes, we explore the considerations of the suggestion or input, then later what the impact is like. If the result is better, then we use it. So we explore again, oh what is the idea like, oh what is the input like - the point is to

detail the input and then look at the impact if the decision or input is implemented, if it is better, then it can be used.” M1

“In the context of KM, I really invite my members, encourage my members, so that let's build our house together so that later at least the shape will be clearer, clearer, and stronger. I really involve my friends in how we can process to capture all propis” M2

The leaders engage in open discussions with team members and consider their suggestions. This type of leadership is characterized by involving employees in the decision-making process, which can increase engagement by making them feel their contributions are valued. Furthermore, it will transform the knowledge-sharing process into a collaborative and inclusive experience. Employees are not only contributors to knowledge but also active participants in decision-making.

This process strengthens engagement by providing employees with both a platform to share insights and the assurance that their knowledge will be utilized, making them feel integral to the organization's success. If an organization treats employees as partners, pays attention to cooperation in teamwork, places trust in employees, and shows respect towards them as well as treats them as creative and enterprising people while cultivating their willingness to act, make decisions and take responsibility, and at the same time acts ethically, employees will be engaged in work (Baran & Sypniewska, 2020). Moreover, building formal and informal communication with employees can build employee engagement. The informants stated:

“The first thing that must be built from a formal perspective, is what we have to build when determining the target, from there we both know what the target is that they will achieve, and that is also from the results of discussions with them to determine the target.” M 2

All leaders stated that they have good relationships and maintain formal and informal communication with employees, which implies that leaders project the qualities of participative leadership style transformational and transactional, which has a direct effect on satisfaction, leading to increased levels of engagement. Most leaders suggested that empowerment and decision making will have a significant positive impact on employee engagement (Singh & See, 2022).

4.1.3 Employee Engagement

There is some things that can affect employee engagement, such as having a good work environment where employees can get good facilities, colleagues, and leaders; the informants said:

“The thing that makes employees most enthusiastic is definitely the work environment, of course. Then the work environment includes friends and colleagues, leaders, and facilities or for example facilities that support our work such as laptops and other facilities for work.” HD 1

“Then from the comfort of the workspace, then the salary, and then the facilities, maybe what can bind them is actually the salary. Indeed, so far what I have gotten in other places is with working conditions that may still be far from Pegadaian, but they provide a higher salary than Pegadaian.”HD 2

“As much as possible, how can we build a comfortable atmosphere. Although they must be burdened, because there are organizational targets that they must complete. But at least how can we build a light atmosphere for them to complete the task.” M 2

Workplace gratitude plays an important role in fostering employees' engagement and reducing the impact of burnout during a transition period. Employees can thrive during a crisis if they have high levels of hope for the future. Positive expectations can be enhanced by leadership, organizational policy and national plans. When employees feel valued by their supervisors or organizations, they tend to be motivated to do the best for their organizations, leading to greater engagement and productivity (Surachartkumtonkun, 2023). By recognizing employee efforts and contributions makes employees feel valued and committed to their work and organization. The informants saying:

“Also, the attention of leaders to their employees, no matter how small, has a big impact on employees or us. Like asking about self-development, for example, what you want to develop, what training you need, what skills you need to improve, like that, it can increase employee engagement. Appreciation can be in the form of words of gratitude” HD 1

“Yes, first when setting performance targets, I'm not the type of person who says oh this is the target, not like that. At the very beginning when we get together, we know what needs to be done. And while we're on the road, for example, if there's a problem in the communication process, we can discuss it to see what the obstacles are, what I need to help with to solve it.” M 2

“Loyal to his work is committed to completing his work as best as possible, that is also a form of loyalty. Well, when he completes his work as best as possible, a report from management. We give rewards as I said earlier through his performance appraisal” HA

From this data, the research found that appreciation from leaders helps employees be more engaged in the work, like asking employees what they need to develop their skills for their job or doing discussions. With appreciation it makes employees more involved in their job and also the company. And also there is a reward as one of appreciation that given by the company to employees, informants says:

“Right now the reward is being created, it is being conceptualized. It will also be in the form of a decision of the Ministry of Finance, the Knowledge Management award. It has not been fully implemented yet, well from there we are in order to get engagement too, right? So maybe many people read, but they just know and they don't interact with the content; don't give comments, don't give discussions, don't give rates. Well, we encourage people to do that so that we will know how much benefit the knowledge has for its readers. That's what will be done, but not yet.” M1

To make employees engaged, the company's steps are to provide rewards as a form of company appreciation to employees who have used knowledge management well, to encourage employees to share their knowledge with other employees on existing platforms and the company will know how much benefit the knowledge gained by employees. But also on the other hand, other companies do not give rewards to their employees.

“Yes, until now, if there is no specific program, they do not get it, as long as they are aware to provide their knowledge to other friends - which we are definitely campaigning for. So there is no reward related to knowledge because it is part of developing their engagement.” HD 2

This is because the company feels that employees must be aware of the environment around them where they must help each other.

4.1.4 Factors Knowledge Management Effect on Employee Engagement

There is factors of knowledge management that can affect employee engagement, the informant said:

“We started our engagement slowly; we even did it in 2021, if I'm not mistaken; we did mandatory training for all BPPK employees, training on compiling intellectual assets, and knowledge capture. Employees were given 2-3 weeks to create one knowledge per person” M1

By providing training to all employees, the organization demonstrates a commitment to continuous learning and to create knowledge after training, which can increase employee ownership and engagement in the organization.

“The compiler is me, who has my tacit knowledge. How can I force other people to be able to use my intellectual asset, that's what must be thought about. So of course the reward system must also be built for them. If they visit and want to use the IA, because if they don't talk deeply, they will get knowledge” M2

Using intellectual assets as a tool for employees to share their tacit knowledge throughout the company and if employees do this they will be rewarded, this is to make employees enthusiastic about knowledge sharing. And with the support of knowledge management systems to help employee sharing knowledge and to get knowledge, informants say:

“I pay more attention to how the Ministry of Finance has this KLC or KMS and can modify it extraordinarily, so that people are awakened to the awareness that they should, oh there is knowledge that can be used there, it should be like that. Because we encourage KMS not to talk about regulations, SOPs and so on - because that is explicit, but how they can implement their work, their tasks, based on the explicit SOP regulations so that they can really succeed or fail in carrying out these activities.” M2

Also there is Community of Practices that can be one of the factors that affect employee engagement and in BPPK they have CoP, the informant said:

“Now I am trying to find the common thread whether the preparation made is in the framework of Knowledge Management or what. If asked whether there is one in BPPK, there is, BPPK has many regulations. The problem is that this unit has not fully understood it. That is another problem, because this means there is a problem in socialization and so on. There is one in BPPK, there are even regulations.” M2

Community of Practices it's also not fully implemented, because the unit does not fully understand how to use it because there is no good socialization in the company that can explain better how to use and the benefit of CoP. Even though the company doesn't know the thread yet, even if an employee does CoP they can put the summaries of the activities or the knowledge that they get into the KMS so other employees can access.

“Back again, what we are now slowly pushing is if there is something useful from the discussion results in the Community of Practices or CoP, then it is brought up, written again as a lesson learned and can be included in the KMS.” M1

“If we talk about output, the output is there, the CoP, the output from the CoP that is uploaded to KMS is there. But because it doesn't seem connected, it seems like it's not being utilized properly.” M2

But also, the output of it is clearly the CoP where it's uploaded in KMS but because they do not seem connected so the results themselves cannot be utilized well.

4.2 Quantitative Results And Analysis

The researcher conducted a quantitative survey analysis to test the hypotheses developed from the case findings and extant literature. The researcher distributed questionnaires in proportion to the overall number of employees at the three investigated companies to test the hypotheses generated from the qualitative case analysis. With this quantitative design, we aimed to propose a comprehensive understanding of the knowledge management on employee engagement which is moderated by participative leadership.

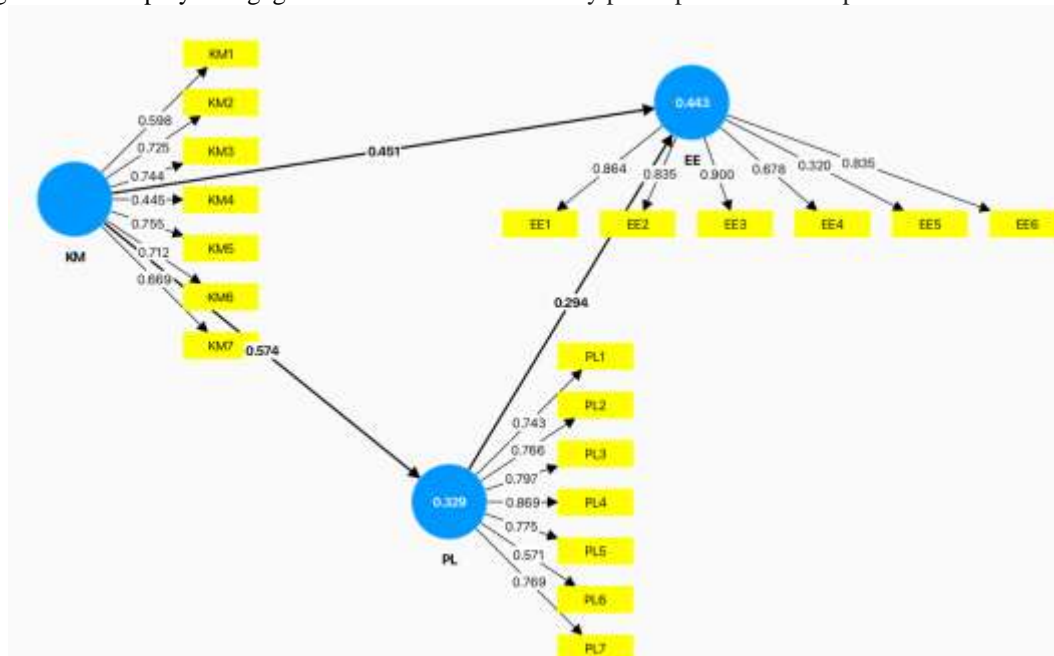


Fig 3. result sem pls

From Figure 3, the result of the analysis of SEM PLS by using SmartPLS; the analysis is divided into two main parts: the measurement model assessment, which evaluates the reliability and validity of the constructs, and the structural model assessment, which examines the hypothesized relationships between variables.

4.2.1 Measurement Model Assessment

Before analyzing the relationships between constructs, it is essential to assess the reliability and validity of the measurement model. This process ensures that the latent variables are accurately measured by their respective indicators. The measurement model was evaluated using outer loadings, internal consistency reliability (Cronbach's alpha and composite reliability), convergent validity (Average Variance Extracted), and discriminant validity (Fornell-Larcker criterion and Heterotrait-Monotrait ratio).

4.2.2 Indicator Reliability

The outer loadings of every observed variable are examined in order to evaluate the reliability of the indicator. An outer loading of 0.70 or greater is generally regarded as appropriate since it shows that the indicator makes a substantial contribution to the construct. If eliminating them does not increase the overall construct reliability, loadings between 0.40 and 0.70 might still be kept (Hair et al., 2017).

Most of the indicators in this study showed acceptable outer loadings. Nonetheless, a few indicators showed comparatively low factor loadings, including KM4 (0.445), KM7 (0.574), and EE5 (0.320). In particular, EE5 is below the acceptable threshold, suggesting that it might not accurately reflect the Employee Engagement (EE) construct. In light of this discovery, a model refinement procedure might be required, which could involve changing the measurement items or eliminating the low-loading indicator.

4.2.3 Internal Consistency Reliability

Composite Reliability (CR) and Cronbach's alpha (α) were computed to evaluate the constructs' internal consistency. Acceptable reliability is indicated by a Cronbach's alpha value above 0.70, and high internal consistency is confirmed by CR values greater than 0.70. From table it show the result of CR and AVE. The findings indicated that every construct satisfied the necessary reliability requirements, indicating the internal consistency of the measurement model.

Table 3. Result Composite Reliability (CR) and Average Variance Extracted (AVE)

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
EE	0.847	0.909	0.888	0.585
KM	0.795	0.816	0.849	0.451
PL	0.876	0.880	0.905	0.578

4.2.4 Convergent Validity

Convergent validity was evaluated using the Average Variance Extracted (AVE), which measures the extent to which a construct explains the variance of its indicators. In this study, only two constructs (EE and PL) exhibited AVE values above the 0.50 threshold, confirming partial convergent validity. However, the construct *Knowledge Management* had an AVE below 0.50 (0.451), indicating that its indicators explain less than 50% of its variance, thus not fully satisfying convergent validity (Fornell & Larcker, 1981)."

4.2.5 Discriminant Validity

Discriminant validity ensures that each construct is unique and distinct from other constructs in the model. It was assessed using two methods:

1. Fornell-Larcker Criterion: The square root of the AVE for each construct should be greater than its correlation with any other construct.
2. Heterotrait-Monotrait (HTMT) Ratio: Values below 0.90 indicate adequate discriminant validity.

Table 4 shows the result of the HTMT ratio. The results confirmed that all constructs met the discriminant validity requirements, indicating that each construct measures a unique concept within the model.

Table 4. Result Heterotrait-monotrait ratio (HTMT)

	Heterotrait-monotrait ratio (HTMT)
KM <-> EE	0.694
PL <-> EE	0.604
PL <-> KM	0.659

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). As shown in Table 4, all HTMT values ranged from 0.604 to 0.694, which are below the conservative threshold of 0.90 recommended by Henseler et al. (2015). These results confirm that each construct in the model is empirically distinct from the others, thereby establishing adequate discriminant validity.

4.2.6 Structural Model Assessment

Once the measurement model was validated, the structural model was assessed to test the hypothesized relationships among Knowledge Management (KM), Participative Leadership (PL), and Employee Engagement (EE). The structural model evaluation was based on path coefficients (β), coefficient of determination (R^2), and mediation analysis.

4.2.7 Path Coefficients and Hypothesis Testing

The structural model analysis provides path coefficients (β values), which indicate the strength and direction of the relationships between constructs. The key findings from the model are as follows:

- **KM \rightarrow EE ($\beta = 0.451$, $p < 0.05$):** Knowledge Management has a moderate positive effect on Employee Engagement, supporting the hypothesis that organizations with strong knowledge management practices tend to experience higher levels of employee engagement.
- **KM \rightarrow PL ($\beta = 0.329$, $p < 0.05$):** Knowledge Management has a moderate positive influence on Participative Leadership, indicating that knowledge management environments contribute to more participative leadership behaviors.
- **PL \rightarrow EE ($\beta = 0.294$, $p < 0.05$):** Participative Leadership has a weak to moderate positive impact on Employee Engagement, suggesting that while leadership involvement is important, other factors may also play a significant role in engagement.

These results indicate that Knowledge Management positively influences Employee Engagement both directly and indirectly through Participative Leadership.

4.2.8 Coefficient of Determination (R^2)

The R^2 value represents the proportion of variance in the dependent variable explained by the independent variables.

- R^2 (EE) = 0.443: 44.3% of the variance in Employee Engagement is explained by Knowledge Management and Participative Leadership.
- R^2 (PL) = 0.329: 32.9% of the variance in Participative Leadership is explained by Knowledge Management.

According to Chin (1998), R^2 values of 0.26, 0.50, and 0.75 are considered weak, moderate, and substantial, respectively. Thus, the model demonstrates a moderate explanatory power for both constructs.

4.2.9 Mediation Analysis

A mediation analysis was conducted to determine whether Participative Leadership (PL) mediates the relationship between Knowledge Management (KM) and Employee Engagement (EE). The mediation effect was assessed using the Variance Accounted For (VAF) method:

$VAF = \frac{\text{Indirect Effect}}{\text{Total Effect}}$

- **Direct effect (KM \rightarrow EE)** = 0.451
- **Indirect effect (KM \rightarrow PL \rightarrow EE)** = $0.329 \times 0.294 = 0.097$
- **Total effect = Direct Effect + Indirect Effect** = $0.451 + 0.097 = 0.548$
- **VAF = $0.097 / 0.548 = 17.7\%$**

Since the VAF falls below 20%, this indicates that Participative Leadership only plays a minor mediating role, and the relationship between Knowledge Management and Employee Engagement remains predominantly direct.

V. DISCUSSION

This study analyzes the relationship between knowledge management on employee engagement and also how participative leadership can mediate the relationship between knowledge management and employee engagement, which is from the result that shows that participative leaderships have a partial role for mediation of the dependent variable and independent variable. The result also found that Knowledge management can affect employee engagement. This study is in line with Alsheikh et al. (2023). Organizations should invest in knowledge management practices to increase employee engagement and organizational success. Knowledge management promotes employee engagement and organizational success by facilitating the generation and distribution of knowledge within the organization. The result of quantitative for the relationship between knowledge management on employee engagement is also in line with the qualitative results. The informants provide examples of KM practices that emphasize divisional customization, cross-departmental collaboration, structured regulatory procedures, and the transformation of tacit knowledge into explicit knowledge. Emphasizing both explicit and tacit knowledge, the organization places a high priority on converting individual expertise into shared assets in order to foster learning and operational efficiency across departments. Additionally, every business benefits from having a Knowledge Management System (KMS) to recognize and record. The researcher discovered that these knowledge management practices impact employee engagement.

The result finds that knowledge management moderate positive influence on participative leadership. Effective knowledge management can significantly enhance participative leadership by fostering a culture of collaboration, knowledge sharing, and improved decision-making, ultimately leading to greater employee engagement and innovation. This result in line with Lin et al. (2020) the findings that a participatory leadership approach fosters an environment in which employees feel empowered, supported, and motivated to speak up, contributing to effective collaboration and knowledge sharing during supplier development efforts.

Furthermore, this study found that participative leadership has a weak positive affect on employee engagement.

There might be other variables that more significantly affect employee engagement. This results in line with Usadolo (2020) the findings that in order for employees to become engaged, they must develop a strong belief that their work activities and their general workplace experiences reflect their inputs in the decision process of their organization. One of the ways this is achieved is through the participatory practices of their leaders, which is perceptions of being listened to and heard and that their input matters for the outcomes obtained. If an organisation treats employees as partners, pays attention to cooperation in teamwork, places trust in employees, and shows respect towards them as well as treats them as creative and enterprising people while cultivating their willingness to act, make decisions and take responsibility, and at the same time acts ethically, employees will be engaged in work (Baran & Sypniewska, 2020). Where participative leadership communication is practised, employees will work with much more vigour; will be more dedicated and will be more absorbed in their work. The more employees receive quality information that is also reliable, the more they will feel engaged. Employees who work in an environment where two-way asymmetrical communication is predominantly practised, will, to a lesser extent, display vigour, dedication and absorption; while the use of two-

way symmetrical communication could lead to employees expressing more vigour; being more dedicated; and being more absorbed in their work (Mbhele & De Beer, 2022). But also from the mediation result, the researchers found that Participative Leadership only plays a minor mediating role, and the relationship between Knowledge Management and Employee Engagement remains predominantly direct. This states that participative leadership only slightly influences the relationship between knowledge management and employee engagement. The previous research has never done study about participative leadership as a mediation variable can mediation for the relationship between knowledge management on employee engagement.

VI. CONCLUSION AND RECOMMENDATIONS

This study about the relationship between knowledge management on employee engagement and participative leadership as a mediation variable. By doing mix method design where firstly doing an interview to manager in a division of 3 companies and giving questionnaires to employees. The findings from the qualitative research reveal that knowledge management practices such as knowledge sharing, knowledge management system, communities of practices and knowledge creation can be affect employee engagement by building awareness and knowledge sharing culture and also KMS can help organization to identify what knowledge should employee get and it makes easy to employee to access the knowledge that they need. And this result also can confirm with the quantitative result that relationship knowledge management has a moderate effect on employee engagement. And also the relationship between knowledge management has moderate positive effect on participative leadership just the relationship between participative leadership has a weak positive affect on employee engagement but its still has the affect and the relationship between knowledge management on employee engagement has minor role mediation of participative leadership even its still has minor role it can one of that increase employee engagement future research also can search other mediation role that has strong effect to mediation the relationship between knowledge management and employee engagement.

This paper has two limitations, first the size of informants and responses that are small, for future research it might be to analyze with big size of informants and respond. And second, the time of research in this study is relatively short. Future research might be needed also doing FGD to get more data and information and also can explore more about the study.

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