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THE INFLUENCE OF ORGANIZATIONAL LEARNING ON EMPLOYEE COMPETENCIES AT PT. SEMEN INDONESIA UNIT TONASA

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Abstract

This study examines the influence of organizational learning on employee competencies at PT. Semen Indonesia Unit Tonasa. In the context of intense market competition and rapid technological change, fostering continuous learning has become critical for organizations to enhance workforce adaptability and innovation. Organizational learning dimensions—such as personal mastery, shared vision, team learning, mental models, and systems thinking—were analyzed for their contribution to employee competencies, including knowledge, skills, and attitudes. A quantitative approach using Structural Equation Modeling (SEM) revealed a significant positive relationship between organizational learning and competencies, with a path coefficient of 0.465 and a t-statistic of 6.434. The findings underscore the role of organizational learning in improving employee collaboration, problem-solving, and strategic thinking. However, challenges like resistance to change, unequal participation, and resource limitations were identified as barriers. Addressing these issues through leadership commitment, inclusive participation, and resource optimization can amplify the impact of learning initiatives.

Keywords: *Organizational learning, employee competencies, personal mastery, shared vision, systems thinking,*

1. INTRODUCTION

In the era of globalization, marked by increasingly intense business competition, a company's ability to survive and grow depends heavily on the quality of its human resources. Rapid changes in technology, consumer preferences, and market dynamics demand that companies continuously innovate and adapt effectively. One strategic approach to address these challenges is adopting the concept of a learning organization. This concept emphasizes the importance of continuous learning as a means to enhance employee competencies and support organizational sustainability (Senge, 1990; Watkins & Marsick, 2003).

A learning organization refers to an entity that creates an environment where learning becomes an integral part of the work culture. According to Senge (1990), a learning

organization is based on five key disciplines: personal mastery, team learning, shared vision, systems thinking, and mental models. By applying these principles, companies can simultaneously foster individual and team development, improve adaptability, and generate innovations that are relevant to market demands. Moreover, a learning organization provides a foundation for enhancing employee competencies, which encompass the knowledge, skills, and attitudes necessary for performing tasks effectively (Yang, Watkins, & Marsick, 2004).

Employee competencies play a crucial role in determining organizational performance. Competent employees not only meet expected job standards but also contribute significantly to innovation, efficiency, and productivity (López et al., 2005). In this context, the application of a learning organization can act as a catalyst in enhancing employee competencies through continuous learning, knowledge sharing, and cross-functional collaboration (Purnamasari, 2019).

At PT. Semen Indonesia Unit Tonasa, the concept of a learning organization has been implemented through various initiatives, including the *Semen Indonesia Center of The Champs* (SICC) program. This program is designed to develop employee capacity and build future leaders capable of addressing the challenges of the increasingly complex cement industry. It includes practical training, managerial skills development, and project-based learning to improve employee competencies. However, the implementation of a learning organization at PT. Semen Indonesia Unit Tonasa still faces several challenges.

One major challenge is resistance to change, as observed in studies by Argyris (2008), which noted that employees often prefer traditional work methods and resist new learning approaches. Many employees at PT. Semen Indonesia Unit Tonasa feel more comfortable with these traditional methods and are less open to updates offered by learning programs. Low participation rates among permanent employees in training also pose a significant barrier, resulting in competency gaps between employees who attend training and those who do not (Tobing, 2011). Additionally, limitations in resource allocation, such as time and budget, further complicate the company's efforts to optimize learning programs.

This phenomenon highlights the need to optimize the implementation of a learning organization to improve employee competencies at PT. Semen Indonesia Unit Tonasa. Strong employee competencies not only support individual performance but also positively contribute to achieving the company's strategic goals. Previous studies have shown a positive relationship between learning organizations and employee competencies (Watkins & Marsick, 2003; Purnamasari, 2019), but there are also findings of inconsistencies, emphasizing the need for further research in specific contexts.

This study aims to explore how a learning organization influences employee competencies at PT. Semen Indonesia Unit Tonasa. It is expected to contribute not only theoretically to the academic literature but also practically by providing recommendations for the company to strengthen its learning organization strategies. With a better understanding of this relationship, PT. Semen Indonesia Unit Tonasa can design more

effective learning programs, support employee competency development, and ultimately enhance its competitiveness in the cement industry.

METHOD

This study employs a quantitative approach to analyze the influence of organizational learning on employee competencies at PT. Semen Indonesia Unit Tonasa. This approach was chosen to measure the relationship between variables using data that can be statistically analyzed. The detailed methodology is as follows:

a. Research Approach

This is an explanatory study aimed at explaining the causal relationship between organizational learning and employee competencies.

b. Research Location and Duration

The study was conducted at PT. Semen Indonesia Unit Tonasa, located in Makassar City. Data collection was planned to occur from October to December 2024, as indicated in the project timeline.

c. Population and Sample

Population: The population of this study includes all permanent employees at PT. Semen Indonesia Unit Tonasa.

Table 1 The Population of Employees at PT. Semen Indonesia Unit Tonasa

No	Description	Total
1	Departments & Equivalent	10
2	Bureaus & Equivalent	47
3	Sections & Equivalent	115
4	Teams & Equivalent	467
5	Staff	365
Total		**1,004**

Source: PT. Semen Indonesia (Persero) Tbk Unit Tonasa (2022)

Sample: The sampling technique used is proportional stratified random sampling, taking into account job strata such as supervisors, managers, and general managers. The sample size was determined using the Slovin formula with a 95% confidence level, ensuring representativeness of the population.

Table 2 Total Population and Research Sample

No.	Position and Division	Population	Sample
	SUPERVISOR		
1.	HR Development Supervisor	119	49

2.	Raw Material Expansion Supervisor	116	47
3.	Raw Material Improvement Supervisor	123	50
4.	Marketing Strategy & Policy Supervisor	109	45
Total		**467**	**191**
	ASSOCIATE		
5.	HR Development Associate	91	37
6.	Raw Material Expansion Associate	88	36
7.	Raw Material Improvement Associate	95	39
8.	Marketing Strategy & Policy Associate	91	37
Total		**365**	**149**

Source: PT. Semen Indonesia (Persero) Tbk Unit Tonasa (processed, 2024)

d. Data Types and Sources

1) **Primary Data**: Collected through questionnaires completed by respondents.

2) **Secondary Data**: Obtained from the company's annual reports, training program documentation, and previous relevant studies.

e. Operational Definitions of Variables

1) **Independent Variable (X)**: Organizational Learning, measured using dimensions adapted from Senge (1990), including personal mastery, team learning, shared vision, systems thinking, and mental models.

2) **Dependent Variable (Y)**: Employee Competencies, measured using dimensions of knowledge, skills, and attitudes.

f. Research Instruments

The research instrument is a questionnaire based on a 5-point Likert scale (1: strongly disagree to 5: strongly agree). The questionnaire comprises :

1) Questions about organizational learning.
2) Questions about employee competencies.

g. Data Collection Techniques

1) **Questionnaire**: Distributed directly to respondents or digitally if necessary.

2) **Interviews**: Conducted with divisional leaders to gain additional insights on organizational learning implementation.

3) **Documentation**: Using relevant corporate data such as employee performance reports.

h. Applications/Software Used

1) **Microsoft Excel**: Used for initial data input and management.

2) **SPSS (Statistical Package for the Social Sciences)**: Used for validity tests, reliability tests, and descriptive data analysis.

3) **SmartPLS (Partial Least Squares)**: Used for data processing and Structural Equation Modeling (SEM) analysis. This application facilitates testing both direct and indirect relationships between variables.

4) **Google Forms** (optional): Utilized for online questionnaire distribution to simplify data collection.

i. Data Analysis Techniques

1) **Validity and Reliability Testing**: Ensuring the quality of research instruments.

2) **Descriptive Analysis**: Providing an overview of the data.

3) **SEM-PLS Analysis**: Testing the relationship between organizational learning and employee competencies, both directly and indirectly.

j. Research Model

The research model tested is as follows Organizational Learning (X) → Employee Competencies (Y).

k. Testing Criteria

1) The hypothesis is accepted if the significance value (*p-value*) < 0.05.
2) Path coefficients indicate a positive relationship between variables.

RESULTS AND DISCUSSION

Results

1) Validity test

Convergent validity is tested for each construct indicator. According to Chin (2015), an indicator is considered valid if its value is greater than 0.70, while a loading factor between 0.50 and 0.60 can be considered acceptable. Based on this criterion, any loading factor below 0.50 will be dropped from the model.

Table 3 The Result of Validity Testing

Indicators	Learning organization	Employee Competence
X1.1	0,823	
X1.10	0,893	
X1.11	0,883	
X1.12	0,880	
X1.13	0,877	
X1.14	0,922	
X1.15	0,920	
X1.16	0,885	
X1.17	0,873	
X1.18	0,906	
X1.19	0,894	
X1.2	0,887	
X1.20	0,894	
X1.21	0,937	
X1.22	0,881	
X1.23	0,858	
X1.24	0,806	
X1.25	0,843	
X1.3	0,877	
X1.4	0,735	
X1.5	0,759	
X1.6	0,912	
X1.7	0,865	
X1.8	0,864	
X1.9	0,882	
Z.1		0,829
Z.10		0,930
Z.11		0,929
Z.12		0,913
Z.13		0,899
Z.14		0,850
Z.15		0,859
Z.16		0,878
Z.17		0,873
Z.18		0,818
Z.2		0,832
Z.3		0,838
Z.4		0,844
Z.5		0,832
Z.6		0,816
Z.7		0,831
Z.8		0,901
Z.9		0,843

Source: Processed Output using SmartPLS 4.0

Based on the table above, it can be observed that all research variable indicators are declared valid, as the Outer Loadings values for each indicator are greater than 0.7. This value indicates that the indicators have a strong relationship with the constructs or variables being measured. In other words, the research instrument used, namely the questionnaire, is reliable for obtaining relevant information in line with the research objectives. Furthermore, the results provide confidence that subsequent analysis processes, whether to test the relationships between variables or for other statistical models, can be carried out with a high level of trust in the quality of the data obtained.

2) Reliability Test

The testing of Composite Reliability and Cronbach's Alpha aims to assess the reliability of the instrument in a research model. If all latent variable values have a Composite Reliability and Cronbach's Alpha value of ≥ 0.70, it indicates that the constructs possess good reliability, meaning the questionnaire used as a research tool is consistent.

Table 4 The Result of Reliability Testing

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Employee Competence	0,980	0,981	0,981
Learning Organization	0,987	0,988	0,987

Source: Processed Output using SmartPLS 4.0

Based on table, the results of the Composite Reliability and Cronbach's Alpha tests show satisfactory values, as all latent variables are reliable with Composite Reliability and Cronbach's Alpha values of ≥ 0.70. These values indicate that the indicators used in the questionnaire have good internal consistency, meaning that the items support each other in measuring the intended variables. In other words, these satisfactory values demonstrate that the questionnaire used in this study is reliable, ensuring that the data collected through the questionnaire can be considered consistent and valid for further analysis.

The findings of this study confirm the significant impact of organizational learning on employee competencies at PT. Semen Indonesia Unit Tonasa. Detailed results are as follows:

1) **Organizational Learning Positively and Significantly Influences Competencies**. The study's analysis shows a positive and statistically significant relationship between organizational learning and employee competencies, as indicated by a path coefficient of 0.465, a t-statistic of 6.434, and a p-value of 0.000. These results corroborate the findings of Tobing (2011) and Yang et al. (2004), who demonstrated that robust organizational learning frameworks substantially enhance individual

competencies and overall organizational performance. The results indicate that employees in organizations with well-structured learning initiatives acquire better technical, managerial, and interpersonal skills.

2) **Strong Performance Across Organizational Learning Dimensions**. The dimensions of organizational learning—*personal mastery*, *shared vision*, *mental models*, *team learning*, and *systems thinking*—achieved consistently high scores. This aligns with the foundational work of Senge (1990), who highlighted that these dimensions are critical to fostering a culture of continuous improvement and adaptability. Employees reported that these dimensions helped them acquire new skills, share knowledge more effectively, and adapt to dynamic workplace challenges. Specifically:

   a) **Personal Mastery**: Encouraged employees to engage in self-directed learning and goal setting, contributing to their personal and professional growth.
   b) **Shared Vision**: Fostered alignment and collaboration across teams, reducing conflicts and enhancing productivity.
   c) **Mental Models**: Challenged employees to adopt innovative perspectives, facilitating problem-solving and critical thinking.
   d) **Team Learning**: Promoted collaboration and knowledge sharing, improving overall team performance.
   e) **Systems Thinking**: Helped employees understand the interconnectedness of their roles, leading to more strategic decision-making.

3) **Improvements in Employee Competencies**. Competency levels, assessed across knowledge, skills, self-concept, traits, and motives, showed marked improvement. These findings support the observations of Watkins and Marsick (2003), who argued that learning organizations create an environment conducive to continuous skill enhancement and competency development. Employees demonstrated increased adaptability, innovation, and teamwork, reflecting the effectiveness of the organizational learning practices implemented at PT. Semen Indonesia Unit Tonasa. Managers reported better leadership capabilities, while operational staff improved in areas such as technical skills and problem-solving.

4) **Impact Across Hierarchical Levels**. The influence of organizational learning was evident across all hierarchical levels. This finding aligns with López et al. (2005), who noted that learning organizations benefit employees at various levels by fostering leadership development at the managerial level and enhancing task efficiency and motivation at the operational level. At PT. Semen Indonesia Unit

Tonasa, learning programs were designed to address the specific needs of different job roles, ensuring widespread competency development.

Discussion

The findings validate the importance of organizational learning as a strategic tool for developing employee competencies. This is consistent with the theoretical framework of Senge (1990), which highlights the critical role of learning dimensions in fostering innovation, adaptability, and employee growth. The study also aligns with empirical evidence from Tobing (2011), Purnamasari (2019), and Yang et al. (2004), demonstrating that learning organizations contribute significantly to individual and organizational success.

Contribution of Organizational Learning Dimensions :

1) **Personal Mastery**: The results indicate that employees who actively engage in personal mastery are more likely to develop strong competencies, aligning with Tobing (2011), who found that personal goal-setting and self-directed learning lead to higher job satisfaction and productivity.
2) **Shared Vision**: A well-articulated shared vision motivates employees and fosters alignment across departments, as observed by Purnamasari (2019), who noted that collective goals create a sense of purpose and collaboration.
3) **Mental Models**: By encouraging employees to question traditional approaches, mental models facilitate innovation and adaptability. Watkins and Marsick (2003) emphasized that challenging existing paradigms is essential for driving meaningful change in organizations.
4) **Team Learning**: Collaborative learning environments enhance knowledge sharing and innovation. López et al. (2005) found that team learning not only improves group cohesion but also drives organizational performance by reducing silos and promoting synergy.
5) **Systems Thinking**: Systems thinking allows employees to understand the broader organizational impact of their actions, improving strategic alignment and decision-making. This dimension aligns with Senge's (1990) assertion that systems thinking is essential for achieving long-term sustainability and growth.

Challenges in Implementation:

Despite the success of organizational learning initiatives at PT. Semen Indonesia Unit Tonasa, several challenges were identified:

1) **Resistance to Change**: As noted by Argyris (2008), resistance to change is a common barrier in learning organizations. Some employees at PT. Semen Indonesia Unit

Tonasa preferred traditional methods over innovative learning approaches, limiting the effectiveness of certain initiatives.

2) **Uneven Participation**: Tobing (2011) observed that unequal access to learning opportunities can create competency gaps. Similarly, this study found that managerial staff were more likely to participate in training programs compared to operational employees, leading to unequal competency development.
3) **Resource Constraints**: Watkins and Marsick (2003) emphasized the importance of sufficient resource allocation for learning programs. At PT. Semen Indonesia Unit Tonasa, limited budgets and time constraints occasionally hindered the scalability of training initiatives.

Strategic Implications:

To address these challenges, PT. Semen Indonesia Unit Tonasa could consider the following strategies:

1) **Leadership Commitment**: Engage leaders to champion organizational learning initiatives, ensuring alignment with organizational goals. This approach aligns with recommendations from López et al. (2005), who emphasized the role of leadership in fostering a culture of learning.
2) **Inclusive Participation**: Implement targeted interventions to encourage participation from all employee levels, bridging competency gaps. Watkins and Marsick (2003) suggested creating flexible learning opportunities to cater to diverse employee needs.
3) **Resource Optimization**: Allocate additional resources to expand training programs and incorporate technology-driven learning solutions. Argyris (2008) highlighted the importance of leveraging technology to enhance the scalability and accessibility of learning programs

CONCLUSION

The findings of this study confirm that organizational learning has a significant and positive influence on employee competencies at PT. Semen Indonesia Unit Tonasa. By fostering a culture of continuous learning and implementing structured frameworks such as personal mastery, shared vision, team learning, mental models, and systems thinking, the organization has successfully enhanced employee knowledge, skills, and attitudes. These improvements are evident across all hierarchical levels, demonstrating the broad applicability and impact of organizational learning.

Key dimensions such as personal mastery and team learning emerged as critical drivers of competency development, promoting self-directed growth, collaboration, and innovation. The alignment of individual learning goals with organizational objectives through shared vision has further contributed to fostering cohesion and motivation among employees. Additionally, systems thinking has enabled employees to understand the

interdependencies within the organization, leading to better strategic decision-making and adaptability.

Despite these achievements, challenges such as resistance to change, uneven participation, and resource constraints highlight areas for improvement. Addressing these issues through leadership commitment, inclusive participation strategies, and optimized resource allocation can amplify the benefits of organizational learning

In conclusion, the study underscores the pivotal role of organizational learning in building a skilled and adaptable workforce. These insights provide practical implications for PT. Semen Indonesia Unit Tonasa and similar organizations to invest in learning frameworks that not only enhance employee competencies but also drive long-term organizational success. Future research could explore additional variables, such as employee engagement and technological integration, to provide a more comprehensive understanding of the relationship between organizational learning and employee performance.

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