Analysis of Factors Affecting Supportive Work Environment, Organizational Learning Culture, and Organizational Performance among Employees at Logistics Companies in Batam "With Learning Agility as a Mediating Variable"

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Abstract: This study aims to analyze the factors influencing Supportive Work Environment, Organizational Learning Culture, and Organizational Performance among employees in logistics companies in Batam, with Learning Agility as a mediating variable. Batam, as a Special Economic Zone with a strategic position in international trade routes, has significant potential to become a major logistics hub in Southeast Asia. However, its logistics infrastructure is not yet fully optimized, and couriers face challenges such as high stress levels and rapidly changing technological demands. This research employs a quantitative method using Partial Least Square (PLS) and collects data through questionnaires from 100 respondents. The results show that Supportive Work Environment (H1) and Organizational Learning Culture (H2) positively affect Learning Agility, and Learning Agility (H3) positively affects Organizational Performance. Additionally, Supportive Work Environment (H4) and Organizational Learning Culture (H5) also positively influence Organizational Performance. This study recommends that logistics companies in Batam develop a supportive work environment and a strong learning culture to enhance employee learning agility and overall organizational performance.

Keywords: Supportive Work Environment, Learning Agility, Organizational Learning Culture, Organizational Performance.

Introduction

Batam, as a Special Economic Zone (SEZ), has a strategic position in the ALKI II international trade route and is close to Singapore and Malaysia, making it one of the areas with the greatest potential to develop as a logistics hub for Southeast Asia. However, the less-than-optimal logistics infrastructure, complex distribution channels, and high operational pressure on field employees, especially couriers, remain major challenges that affect the effectiveness of the supply chain in this region. The logistics industry demands fast service, accurate delivery, and continuous technological adaptation, requiring employees to be able to work in dynamic and stressful conditions. Previous studies have shown that couriers in logistics companies are prone to work stress, burnout, and high turnover rates due to heavy work demands (Zulkifli et al., 2021). Meanwhile, internal organizational factors such as work environment support and learning culture are often not optimally developed to support employee resilience and performance. A supportive work environment is one of the important factors that can improve employees' psychological well-being, motivation, and productivity. A work environment characterized by open communication, support from superiors, adequate facilities, and psychological security has been proven to increase employee engagement in the work process and strengthen their initiative to learn and develop adaptive skills (Imran et al., 2020). This is in line with the view of Carmeli et al. (2011), who state that a supportive work environment facilitates employees' courage to experiment, take positive risks, and learn from experience without fear of making mistakes.

In addition, organizational learning culture (OLC) also plays an important role in shaping human resource capabilities in the logistics industry. OLC reflects the values, practices, and norms of an organization that encourage continuous learning, knowledge sharing, innovation, and employee competency improvement. Organizations with a strong learning culture have proven to be more adaptive to market changes, more innovative, and better able to maintain service quality even in competitive environments (Wang et al., 2021; Lee & Choi, 2023). This learning culture not only affects the overall effectiveness of the organization but also has a direct impact on the ability of individuals to respond to operational challenges.

In the fast-paced dynamics of the logistics industry, individual adaptive abilities such as learning agility are highly sought-after competencies. Learning agility refers to a person's ability to learn quickly from experience, understand new situations, and apply knowledge effectively in unexpected circumstances (De Meuse, 2019). Employees with high learning agility are generally more flexible, able to respond to technological changes, more adept at handling complex problems, and make significant contributions to improving organizational performance. In the context of logistics, Hassan et al. (2021) show that learning agility helps employees respond to supply chain disruptions and improve operational effectiveness. Learning agility

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also acts as a mediating variable that links the influence of the work environment and learning culture on organizational performance, making it a crucial aspect of this study.

Organizational performance in the logistics industry can be measured through operational efficiency, delivery timeliness, customer satisfaction, and the company's ability to adapt to market changes (Richard et al., 2009; Kaplan & Norton, 1992). Various studies confirm that organizational performance is determined by the quality of human resources, learning culture, work environment support, and technological adaptation capabilities (Wang & Chiu, 2021). In the context of Batam, logistics companies face unique challenges, such as customs regulations, global competition, and increasing demands for digitalization, making it very important to understand the internal factors that affect performance.

Based on these conditions, this study was designed to provide a more comprehensive understanding of how a supportive work environment and organizational learning culture influence learning agility and organizational performance in logistics companies in Batam. This study is innovative (Novelty) because it integrates two key organizational factors with the mediating variable of learning agility in the context of the logistics industry, which has rarely been studied before in the Batam region. In addition, this study provides new empirical evidence regarding the mechanism of relationships between variables in a dynamic and high-pressure work environment. By analyzing the direct and indirect effects of each variable, this study is expected to contribute theoretically to the development of human resource management and organizational behavior science, as well as provide practical implications for logistics companies in designing effective human resource development strategies, improving employee adaptability, and enhancing overall organizational performance.

Methodology

(Sulistiyowati, 2017)reveals that the population is the object being studied. In this study, several official logistics companies operate and are registered in the city of Batam. This study focuses on employees in logistics companies who are still actively working and companies that are still actively carrying out activities in the field of logistics. The results of this study focus on the factors that influence employee performance. The method used in this study is quantitative, supported by data collected through a questionnaire with a scale of 1-5. The researcher chose a quantitative approach as the research method to analyze the characteristics and behavior of employees in logistics companies objectively and more measurably.

The selection of logistics companies as the subject of this research was based on the importance of logistics in the delivery of goods throughout Indonesia, where online shopping has become a way of life in this era of globalization.

(Cahyadi, 2022) states that a sample is the number and characteristics of the population. The sample used in this study was employees of logistics companies in the city of Batam, with several requirements, namely, (1) Having worked and been part of the company for at least 1 year (2) Having a sufficient understanding of the environment and policies within the company. The research method used in this sample used non-probability sampling techniques with a purposive sampling approach. Purposive sampling was chosen because it has specific criteria that are in line with the research objectives and also has predetermined considerations for respondents.

To determine the sample selected, the researcher used the approach (Joseph F. Hair Jr., 2010) to determine the sample size in a study. With an unknown population size, the sample size can be determined by multiplying the number of questions by 5. The results of the questionnaire also took into account that this study used 5 variables and each variable had various measurement indicators, so the sample size was 100 respondents from 20 questions.

Result and Discussion

Based on the results of the research conducted, which collected data from 176 respondents, the characteristics of the respondents were identified based on gender, age, and company employee categories.

Demographic Data

Table 1.1: Demographic Data By Gender

Description	Amount	Percentage
Man	132	75%
Women	44	25%
Total	176	100%

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Table 1.2: Demographic Data By Age

Description	Amount	Percentage
< 20 Years Old	25	14,3%
20 - 25 Years Old	134	76%
26 - 30 Years Old	13	7,4%
31 - 40 Years Old	4	2,3%
Total	176	100%

Table 1.3: Demographic Data of Company Employees

Description	Amount	Percentage
J&T	61	34,66%
JNE	47	26,70%
SPX	41	23,29%
SiCepat	18	10,23%
Paxel	9	5,11%
Total	176	100%

Based on the respondent characteristics data, it can be concluded that most respondents were male, with a total of 132 people and a percentage of 75%. There were 134 people aged 20-25 years old, with a percentage of 76%. J&T had the most respondents, with a total of 61 people and a percentage of 34.66%.

Data Analysis

The tool used in this study was Smart PLS version 3.0, which is specifically designed to estimate structural equations based on variance. The path diagrams for the outer model and inner model in this study are as follows.
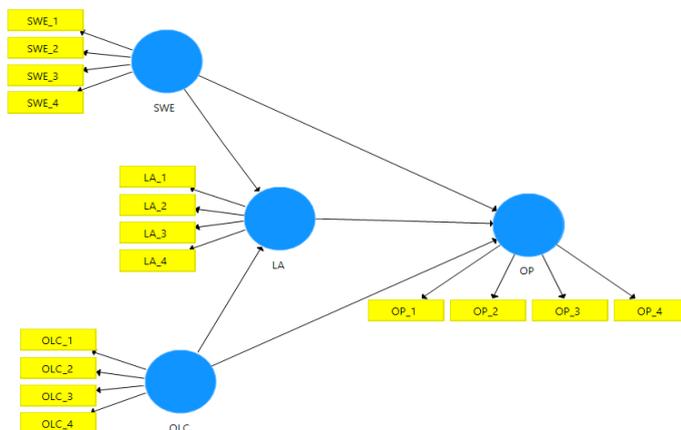
Source: Data Management By Smartpls 3, 2025

Figure 1.1: Outer Model and Inner Model

The PLS model was evaluated by assessing the outer model and inner model. The outer model is a measurement model used to assess the validity and reliability of the model. Meanwhile, the inner model is a structural model used to predict causal relationships between latent variables. The model was evaluated by looking at the significance of the statistics to determine the influence between variables. The criteria for using data analysis techniques are assessed through the outer model, namely convergent validity, discriminant validity, composite reliability, and Cronbach's alpha. Meanwhile, the inner model is assessed through bootstrapping and the t-test to predict the existence of causal relationships (Abdillah & Jogiyanto, 2015).

Tabel: 2.1 Outer Loading

Variabel	Sample mean	Description
LA1	0,821	*Valid*
LA2	0,779	*Valid*
LA3	0,805	*Valid*
LA4	0,785	*Valid*

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OLC1	0,786	*Valid*
OLC2	0,776	*Valid*
OLC3	0,748	*Valid*
OLC4	0,773	*Valid*
OP1	0,777	*Valid*
OP2	0,767	*Valid*
OP3	0,753	*Valid*
OP4	0,838	*Valid*
SWE1	0,763	*Valid*
SWE2	0,755	*Valid*
SWE3	0,769	*Valid*
SWE4	0,795	*Valid*

Table 2.2: Composite Reliability

Variabel	Composite Reliability	Conclusion
LA	0,876	*Reliabel*
OLC	0,855	*Reliabel*
OP	0,865	*Reliabel*
SWE	0,856	*Reliabel*

Table 2.3: Reliability analysis results

Variabel	Cronbach's Alpha	Conclusion
LA	0,811	*Reliabel*
OLC	0,774	*Reliabel*
OP	0,791	*Reliabel*
SWE	0,776	*Reliabel*

Table 2.4: T- Statistics

Route	T-Statistics	P-Value	Conclusion
A Supportive Work Environment Affects Learning Agility	6,979	0,000	H1: Significant
Organizational Learning Culture affects Learning Agility	7,848	0,000	H2: significant
Learning Agility affects Organizational Performance	2,829	0,005	H3: significant
A Supportive Work Environment Affects Organizational Performance	4,350	0,000	H4: significant
Organizational Learning Culture affects Organizational Performance	6,960	0,000	H5: significant

Table 2.5: R-Square

Variabel	Adjusted R Square
Learning Agility	0,733
Organizational Performance	0,737

Table 2.6: Indirect Result

Variabel	T Statistic	P Value	Kesimpulan
Organizational Learning Culture affects Learning Agility as a mediator of Organizational Performance	2,785	0,006	*affect*
Supportive Work Environment affects Learning Agility as a mediator of Organizational Performance	2,411	0,016	*affect*

This study found that Supportive Work Environment (SWE) and Organizational Learning Culture (OLC) have a significant positive influence on the Learning Agility (LA) of employees in logistics companies in Batam. This shows that a supportive work environment and a strong learning culture can facilitate employees' ability to learn quickly and adapt to change. Learning Agility itself has also been proven to have a positive

effect on Organizational Performance (OP), which shows that employees' ability to learn from experience and apply new knowledge can improve overall organizational performance. These findings are in line with the theory that a supportive work environment and a strong learning culture can improve employees' adaptive abilities and organizational performance.

A supportive work environment, such as open communication, management support, and adequate resources, creates a positive psychological climate and allows employees to take the initiative in learning and experimenting. A strong learning culture, such as continuous training and knowledge sharing, also facilitates the development of employee Learning Agility. Learning Agility acts as a mediating variable that connects the influence of Supportive Work Environment and Organizational Learning Culture on Organizational Performance. This shows that employees' ability to learn quickly and adapt to change is key to improving organizational performance. Logistics companies in Batam need to develop more effective strategies to create a supportive work environment and a strong learning culture, thereby improving employee Learning Agility and overall organizational performance.

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