EFFECT OF ORGANIZATIONAL COMMUNICATION, LEADERSHIP COMMUNICATION, AND WORK DISCIPLINE ON OCCUPATIONAL HEALTH AND SAFETY AT PT ARMADA BANGUN SAMUDRA (PT ABS)

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ABSTRACT

Communication is something that is required in everyday life to express thoughts or ideas to invite others to act and produce desired changes, both in terms of individuals and organizations. Within organizations, communication has an impact on organizational performance. This study aims to determine the effective communication model of OHS in PT Armada Bangun Samudra (PTABS), a shipbuilding company. Data were collected from 185 respondents who were selected randomly from a pool of 344. Data analysis used Structural Equation Modeling (SEM). The results reveal that communication can be effective in an organization with multiple sub-organizations/sections if it is carried out in a hierarchical manner one level above or below. This study found that the leader's communication skills had a significant effect on work discipline. Employee work discipline has a significant effect on the company's OHS performance. To improve OHS performance, organizational leaders' communication skills and employee participation at all levels must be improved.

Keywords:
Organizational communication; leadership communication; discipline; OHS performance

INTRODUCTION

Communication is something that is required in everyday life to deliver thoughts or ideas to invite someone or others to act and make changes. Communication also occurs in an organization. Communication within the organization has an impact on organizational performance. Managing organizational communication is critical because the more advanced an organization is, the more professional management is required to ensure that all components can carry out their tasks and roles as an integral part of the communication system. The
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dynamics of the collaboration process of its members to achieve the goals of an organization can be increased its effectiveness through improved communication (Nefra Firdaus et al., 2021; Suranto, 2018). In an organization, there is a hierarchy. The higher hierarchy can rule, direct, and supervise the lower hierarchy, and they are responsible for them. The role of leadership in the organization is very important in achieving organizational goals (Amri et al., 2022; Khasanah et al., 2019). When the leader has the will and skills to manage the system and its members respond positively, organizational communication can function properly (Suranto, 2018).

There are so many activities or programs carried out in a company and one of them is Occupational Health and Safety (OHS). All workplaces need communication in running the OHS program. The role of organizational communication in implementing OHS has always been an actual phenomenon to be studied in depth. This study was conducted at PT Armada Bangun Samudra (PT ABS), which is one of the shipbuilding companies located in Cilegon. PT ABS manufactures tugboats and repairs ships. Established in March 2021, its head office is at Jl Gedung Hijau Raya Blok SG13 No 64, Pondok Pinang, Kebayoran Lama District, Jakarta Selatan 12310 and its plant site is at Jl. Raya Bojonegara KM 6.8 Bojonegara Serang Banten 42454. Its operational activities are centered in Serang Banten, on an area of 25 Ha. Currently, it is in the process of building 25 sets of Tug & Barge in collaboration with four contractors, namely PT Anugrah Bintang Samudra Indonesia (ABSI), PT Sabil Jaya Utama (SJU), PT Candra Sentosa Makmur (CSM), and PT Mustika Samudra Perkasa.

The biggest issue that PT ABS is currently dealing with is the communication process between PTABS and company workers who have joined forces to improve OHS. Its goal is to achieve OHS performance while working comfortably and safely. This study seeks to determine and analyze the effect of organizational communication, leadership communication, and work discipline on the company's OHS performance.

Organizational communication is critical in achieving an organization's vision and mission. Widowati (2021) stated that Leadership communication skill influences worker participation and OHS performance; also, organizational communication affects leadership in accomplishing the organization's vision and mission. Amri et al. (2022) and Khasanah et al. (2019) added that transformational leadership, learning organization, and OHS culture have a positive effect on company performance and reputation. The same thing was also conveyed by Syallow (2019). The commitment of all employees is a crucial aspect in achieving OHS performance, and direct communication is the most significant factor in developing amicable communication (Tappura et al., 2022). Yao et al. (2022) states that clear orders and tasks are one of the factors that can encourage workers' participation. Communication in an organization differs from communication in a family since there is a hierarchy within the organization (Suranto, 2018). The higher a person's position in the business, the more important communication skills are.

In the organization, there is a leader. Organizational leaders communicate with subordinates to share experience and knowledge, promote solidarity and cooperation, harmonize work implementation, avoid double burdens in carrying out tasks, promote harmony, discuss ways to overcome obstacles that arise and correct each other to avoid mistakes and promote harmonious relationships and collaborations (Shin et al., 2021). Leadership is a crucial aspect of the OHS management system because leaders in an organization are expected to establish a superior system and give the necessary resources to protect workers from harm (Amir, 2020). Leaders are required in organizations to instill discipline and achieve organizational goals. Prijodarminto (1994) in Tsauri (2013) explains that discipline is a condition that is established and created through a sequence of acts that demonstrate the ideals of
compliance, obedience, loyalty, order, and order. Tsauri (2013) describes that Discipline is critical for organizational growth; companies require more work discipline than their employees.

It is critical to measure organizational performance in organizations. Organizational performance is a description of the level of achievement of activity or policy in attaining the organization’s vision, mission, goals, and objectives (Suranto, 2018). Measuring a company’s OHS performance is as critical as measuring its financial or productivity performance. Komar (2020) says that there are various methods to assess OHS performance, one of which is to evaluate behavioral performance. In this study, behavioral performance measurement through job duties was used. Based on several theories and previous research, the thinking framework in this study is shown in Figure 1.

![Figure 1. Thinking Framework](image)

Description:
- X1: Organizational Communication
- X2: Leadership Communication
- X3: Work Discipline
- Y: OHS Performance

The hypotheses in this study are as follows:
- H1 = there is an effect of organizational communication on leadership communication.
- H2 = there is an effect of organizational communication on the OHS performance.
- H3 = there is an effect of organizational communication on work discipline.
- H4 = there is an effect of leadership communication on work discipline.
- H5 = there is an effect of leadership communication on the OHS performance.
- H6 = there is an effect of work discipline on the OHS performance.

**METHOD**

The population in this study were all ABS employees with a total of 344 people. The sample was determined using Slovin's formula with a margin of error of 5%. 185 respondents were obtained. Data was collected through a questionnaire on a Likert scale. The structural Equation Model used for data analysis consisted of two stages (1) the outer model to determine the validity, reliability, and feasibility; and (2) the inner model to test the hypothesis by using the t-test.
RESULTS AND DISCUSSION

A. Descriptive Analysis

The profile of respondents based on status, education, and age is depicted in Table 1.

| Characteristic   | Category         | Frequency | Percentage (%) |
|------------------|------------------|-----------|----------------|
| Status           | ABS              | 46        | 27.1           |
|                  | ABSI             | 18        | 9.6            |
|                  | CSM              | 43        | 22.9           |
|                  | MSP              | 17        | 9.0            |
|                  | SJU              | 59        | 31.4           |
| Education        | Elementary School / Equivalent | 8 | 4.3       |
|                  | Junior High School / Equivalent | 29 | 16.0     |
|                  | Senior High School/ Equivalent | 116 | 62.2   |
|                  | D1 / D2 / D3     | 10        | 5.3            |
|                  | Bachelor's Degree / D4 | 22 | 12.2     |
| Age              | 16 - 25 Years Old | 32 | 17.6      |
|                  | 26 - 35 Years Old | 62 | 34.0      |
|                  | 36 - 45 Years Old | 65 | 34.6      |
|                  | 46 - 55 Years Old | 25 | 13.3      |
|                  | 56 - 65 Years Old | 1  | 0.5       |

Table 1 shows that the majority of workers have finished their senior high school (62.2%), with an age of 26-45 years (68.6%). This indicates that most of the workers are still in the productive age group with limited education.

1. Organizational Communication

In Table 2, it can be seen that the mean score of respondents’ perceptions for all questions related to Organizational Communication is 4.20, which indicates that the respondents believe their workplace has strong organizational communication. In this study, the statement that received the highest rating from respondents reads “Whenever work problems occur while working, I as an employee can communicate with my superiors” with an average of 4.40.

The lowest score among indicators was the statement “I as an employee trust the information personally given to him” with an average of 3.78. This poor score is because there are several contractors in one project area, thus employees may obtain information from employees who work for other contractors in the project area, and not all of them trust the information provided to them personally, as shown in Table 2.

| Description                                                                 | Strongly Disagree | Disagree | Neither agree nor disagree | Agree | Strongly Agree | Mean |
|-----------------------------------------------------------------------------|-------------------|----------|---------------------------|-------|----------------|------|
| My supervisor always communicates information about assignments, policies related to the Organization | n = 1             | % = 0.5  | n = 7                     | % = 3.7 | n = 5           | % = 2.7 | n = 93        | % = 49.5  | n = 82        | % = 43.6  | 4.32         |
| as an employee I can easily express opinions with superiors                 | n = 1             | % = 0.5  | n = 8                     | % = 4.3 | n = 6           | % = 3.2 | n = 103       | % = 54.8  | n = 70        | % = 37.2  | 4.24         |
| As an employee, I easily reach out to my superordinates whenever problems occur. | n = 4             | % = 2.1  | n = 2                     | % = 1.1 | n = 2           | % = 1.1 | n = 87        | % = 46.3  | n = 93        | % = 49.5  | 4.40         |
| I trust my partners in performing the job                                  | n = 1             | % = 0.5  | n = 8                     | % = 4.3 | n = 8           | % = 4.3 | n = 112       | % = 59.6  | n = 59        | % = 31.4  | 4.17         |
2. Leadership Communication

Respondents' perceptions of the variable of leadership communication are presented in Table 3. The range score of Leadership Communication variables is the range 4.21 – 5.00 for indicators of ‘informing’, ‘influencing/persuading/motivating’, and ‘instructing’. It is categorized as ‘very good’. While for indicators ‘involving’ are in the range 3.41 – 4.20 and are categorized as ‘good’. However, the overall mean for all questions related to the Leadership Communication variable is 4.29.

The respondents evaluated the statement as the most significant indicator "My supervisor instructs all his subordinates to work using a safety helmet and shoes, or other PPE to protect ourselves" with an average of 4.41. When viewed from the Living Systems theory of Miller (2005), organizations have interdependence characteristics, whereas systems are interdependent with one another. In this study, contractors rely on PT ABS for shipbuilding, thus PT ABS’s policy addressing the importance of work safety in the project environment is immediately applied by the contractors, and the contractor's HSE leader quickly directs workers to utilize protective equipment. This procedure demonstrates Miller’s hierarchical system theory, in which PT ABS educates contractors, and contractors instruct employees.

Table 3
Respondents' Perceptions of Leadership Communication Variables

| Description                                                                 | Strongly Disagree | Disagree | Neither agree nor disagree | Agree | Strongly Agree | Mean |
|----------------------------------------------------------------------------|-------------------|----------|---------------------------|-------|----------------|------|
| My superior always communicates information about assignments, and policies related to the organization. | 1                 | 0.5      | 7                         | 3.7   | 5              | 2.7  | 93              | 49.5 | 82              | 43.6 | 4.32          |
| I as an employee can easily express opinions with superiors                | 1                 | 0.5      | 8                         | 4.3   | 6              | 3.2  | 103             | 54.8 | 70              | 37.2 | 4.24          |
| Whenever there is a problem at work, I as an employee can communicate it to my superiors | 4                 | 2.1      | 2                         | 1.1   | 2              | 1.1  | 87              | 46.3 | 93              | 49.5 | 4.40          |
| I trust my co-workers in doing my job                                     | 1                 | 0.5      | 8                         | 4.3   | 8              | 4.3  | 112             | 59.6 | 59              | 31.4 | 4.17          |
| I can easily coordinate and cooperate with colleagues at work             | 1                 | 0.5      | 5                         | 2.7   | 8              | 4.3  | 98              | 52.1 | 76              | 40.4 | 4.29          |
| Different contractors in one location do not obstruct my                  | 2                 | 1.1      | 5                         | 2.7   | 13             | 6.9  | 116             | 61.7 | 52              | 27.7 | 4.12          |
The lowest indicator that is rated the highest by respondents is the statement "My supervisor always involves all of his subordinates in problem-solving discussions at work" with an average of 4.10. This score is low because not all of the contractors in one project area are from the same company. This leadership communication is addressed to the direct superior leader at each level, with whom the responder contacts directly every day so that the respondent can provide an immediate evaluation.

3. Work Discipline

Respondents’ responses to work discipline are shown in Table 4.

Table 4

| Description                                                                 | Strongly Disagree | Disagree | Neither agree nor disagree | Agree | Strongly Agree | Mean |
|----------------------------------------------------------------------------|-------------------|----------|---------------------------|-------|----------------|------|
| My superior always informs me as a subordinate of the company regulations. | 1 0.5             | 8 4.3    | 4 2.1                     | 99    | 52.7           | 76   | 40.4           | 4.28 |
| My superior always gives directions for the work I’ll be doing.            | 3 1.6             | 6 3.2    | 5 2.7                     | 102   | 54.3           | 72   | 38.3           | 4.24 |
| My superior invites all his subordinates to work safely.                   | 4 2.1             | 5 2.7    | 5 2.7                     | 75    | 39.9           | 99   | 52.7           | 4.38 |
| My superior instructs all his subordinates to work on time and target.    | 3 1.6             | 4 2.1    | 3 1.6                     | 103   | 54.8           | 75   | 39.9           | 4.29 |
| My superior instructs all his subordinates to work using a safety helmet and shoes or other PPE. | 4 2.1 | 5 2.7 | 9 4.8 | 61 32.4 | 109 58.0 | 4.41 |
| My supervisor always involves all of his subordinates in problem-solving discussions at work | 2 1.1 | 13 6.9 | 13 6.9 | 97 51.6 | 63 33.5 | 4.10 |

Mean 4.29
Based on Table 4, the mean score of respondents’ perceptions for all questions related to the Work Discipline variable is 4.29 which indicates that respondents think that their workplace has very good Work Discipline. The indicators that were rated the highest by the respondents were the statements “As an employee, I arrive on time and adhere to the working hours that have been given to me” and “I as an employee use identification cards in the company”.

The lowest indicator that was rated the highest by the respondents is in the statement “I as an employee do the work until it is completed every day” with an average of 4.19. According to the researcher’s observations in this situation, this occurs because the job assigned does not always have to be done on the same day. However, overall work discipline is still in a ‘fairly good’ category, because they are bound by a work contract and company provisions that must be fulfilled.

4. OHS Performance

As a new company, the OHS Management system has not yet been fully implemented by PT ABS. However, the leaders’ commitment to ensuring safe and secure work by installing bulletin boards and conducting routine surveillance has a meaningful impact. This is as stated by the respondents. Based on the indicators, the mean score of respondents’ perceptions for all questions related to the Company’s OHS Performance variable is 4.07 which indicates that the respondents perceive that their workplace has a good OHS performance. The indicator that was rated the highest by the respondents was the statement “I as an employee understand the work assigned and explained to me” with a mean score of 4.20. The lowest indicator that is rated the highest by the respondents is the statement “The Board of directors conducts field visits every three months to obtain direct information from employees” with a mean score of 3.93.

B. Inferential Statistics

The inferential analysis uses the SEM, with several stages of testing including the outer and inner model tests as presented in the following description:

1. Construct Validity Test

Construct validity test was done by calculating convergent validity. Convergent validity is identified through the factor loading and Average Variance Extracted (AVE). An instrument is said to meet the convergent validity test if it has a factor loading and Average Variance Extracted (AVE) above 0.5. The values of all variables are > 0.5. Thus, they are declared valid, as presented in Table 5.

| Variable               | AVE   |
|------------------------|-------|
| Organizational Communication | 0.541 |
| Leadership Communication      | 0.667 |
| Work Discipline a     | 0.732 |
| OHS Performance         | 0.706 |

2. Construct Reliability

After knowing the construct validity, the next step is to know the construct reliability with the following formula:

\[
\text{Construct Reliability} = \frac{\left(\sum \text{Std. Loading}\right)^2}{\left(\sum \text{Std. Loading}\right)^2 + \sum \varepsilon_j}
\]

Referring to table 6, the limit value for an acceptable level of reliability is greater than 0.7.
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Based on Table 6, all of the variables have a value of > 0.7. Thus, they are declared reliable.

3. The Goodness of Fit Model

This test aims to determine the fit of the model as shown in Table 7.

Based on Table 7, most of the indicators show that the structural model is fit to represent actual conditions, only two indicators are not fit, namely GFI and AFGI. However, the overall model is fit, because the average is 0.9157.

4. Structural Model

Evaluation of the structural model or inner model intends to evaluate the goodness of fit which includes the coefficient of determination and predictive relevance as well as hypothesis testing. Each is explained as follows:

![Figure 2. Structural model based on PLS Results](image)
Figure 2 describes the t-test values. They are shown in Table 8.

| Hypothesis | Relationship | Estimate | T-Value | Cut Off | Description |
|------------|--------------|----------|---------|---------|-------------|
| H1         | Organizational Communication \(\rightarrow\) Leadership Communication | 0.84     | 7.32    | >1.96   | Significant |
| H2         | Organizational Communication \(\rightarrow\) OHS Performance | -0.052   | -0.058  | >1.96   | Not Significant |
| H3         | Organizational Communication \(\rightarrow\) Work Discipline | 0.0052   | 0.042   | >1.96   | Not Significant |
| H4         | Leadership Communication \(\rightarrow\) Work Discipline | 0.86     | 7.65    | >1.96   | Significant |
| H5         | Leadership Communication \(\rightarrow\) OHS Performance | 0.16     | 1.33    | >1.96   | Not Significant |
| H6         | Work Discipline \(\rightarrow\) OHS Performance | 0.78     | 5.53    | >1.96   | Significant |

Based on Table 8, it can be explained as follows:

1) The Effect of Organizational Communication on Leadership Communication

   The t-arithmetic obtained is 7.32. It is > 1.96. Thus, it can be concluded that there is a significant effect of Organizational Communication on Leadership Communication. Thus Hypothesis 1 is accepted. It can be interpreted that the better the Organizational Communication, the more likely it is to improve Leadership Communication. Because of the interdependence between workers and their leaders, as well as between contractors and PT ABS, the leader is devoted to the implementation of K3 in this research and communicates effectively with contractors to implement OHS for mutual safety. According to Miller (2005), the project is a system in which there are interdependencies.

2) The Effect of Organizational Communication on the OHS Performance

   The t-arithmetic is -0.058. It is < 1.96. So, it can be concluded that there is no significant effect of Organizational Communication on OHS Performance. Thus, Hypothesis 2 is rejected.

   In this study, OHS Performance had no significant effect because the company only introduced OHS in March 2022, when the researchers conducted research there. As a result, the company’s OHS performance has not been significant.

3) The Effect of Organizational Communication on Work Discipline

   The t-arithmetic is 0.042. It is < 1.96. Hence, there is no significant effect of Organizational Communication on Work Discipline. Hypothesis 3 is rejected.

   In this study, Organizational Communication does not have a significant effect on Work Discipline. This is attributed to the reason that this company is still relatively new (it was established in November 2021) and just introduced OHS in March 2022, when researchers conducted research. Furthermore, in the project area, PT ABS oversees various contractors so that employees working for these contractors will be more obedient to the contractor’s rules.
4) The Effect of Leadership Communication on Work Discipline

The t-arithmetic is 7.65. It is > 1.96. It can be concluded that there is a significant effect of Leadership Communication on Work Discipline. Thus, Hypothesis 4 is accepted. Work discipline is a strategy that managers use to communicate with their employees in order to get them to change their behavior in order to raise awareness and to observe all company regulations and applicable standards (Rivai & Sagala, 2013). The example of company leaders can generally produce work discipline for employees who devote themselves to the leadership in question (Sastrohadiwiryo & Syuhada, 2021). In this study, employee discipline depends on the employee's direct supervisor.

5) The Effect of Leadership Communication on OHS Performance.

The t-arithmetic is 1.33, which is < 1.96. Hence, there is no significant effect of Leadership Communication on OHS Performance. Thus, hypothesis 5 is rejected. In this study, there is no significant effect of Leadership Communication on OHS Performance. Several factors influence this. The ABS company is new and the construction of the ship involves four contractors. The new ABS company has pledged to implement OHS by March 2022, therefore its OHS performance is still not seen in the implementation.

6) The Effect of Work Discipline on the OHS Performance

The t-arithmetic is 5.53, which is > 1.96. So, it can be concluded that there is a significant effect of Work Discipline on OHS Performance. Thus, Hypothesis 6 is accepted.

The company needs the work discipline of its employees. Discipline is required for the development of a disciplined attitude, behavior, and life order that will make employees' jobs easier. This will foster a positive work environment and support efforts to attain goals (Tsauri, 2013).

CONCLUSION

Communication in an organization with sub-organizations/ sections can be productive if done in a hierarchy that is one level below or above. Communication within an organization that occurs at different levels has no meaningful effect. Leadership communication affects employee discipline in an organization, and organizational discipline will affect OHS performance. Therefore, to improve the OHS performance, it is necessary to increase the leadership communication.

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