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The Effect of Organizational Communication, Transformational Leadership and Organizational Learning to OSH Performance: A Case Study in PT Waskita Karya

Amri K.
Doctoral Student of Communication Science
Sahid Unicersity Jakarta

Kholil Kholil
Post Graduate School of Sahid University

Dewi Widowati
London School of Public Relation

ABSTRACT

Cases of work accidents are still happening today, including the construction service company. It indicates that the safety performance of construction service companies is not optimal, so it is important and needs to be investigated, especially safety culture, organizational communication, learning organization, and transformational leadership. Hence, this study explores the role of organizational communication in mediating the influence of transformational leadership and learning organization on safety culture and safety performance. The study used a quantitative approach through a survey with a questionnaire instrument designed on a Likert scale. The participant is 218 workers of PT. Waskita Karya (Persero) Tbk. Data analysis using structural equation modeling. The results showed that transformational leadership, learning organization, and safety culture had a positive and significant direct effect on work safety performance and safety culture, in addition the result also confirm that the key success factor for safety performance is organizational communication. Based on these findings, practically it is recommended that organizational communication among the workforce needs to be improved continuously to make a greater contribution to safety culture and performance.

Keywords: organizational communication, transformational leadership, organizational learning organization, safety culture, safety performance.

INTRODUCTION

Work accidents can be still found in Indonesia. As an illustration, in 2019, there were 157,313 accidents. This shows that the work safety performance is not optimal. Work safety performance is the behavior shown by employees to promote and comply with safety in the workplace which is reflected in the safety compliance and safety participation. Wirahadikusumah and Ferial (2005) show that the low level of compliance of construction implementers to Occupational Health and Safety (OHS) guidelines is a trigger for work accidents. This also indicates that the cultural values of work safety in the construction services sector have not been upheld by construction workers. Fang et al. (2006) stated that safety

culture, especially in construction projects, is an important factor since most of the works is still done by humans. In addition, Fang et al (2006) said that safety culture can be used as the basis for developing safety management strategies. Chen et al. (2018) proved that safety culture has an effect on work safety performance. Work accidents tend to be dominated by unsafe behavior (Afandi et al., 2014). On the other hand, the implementation of an occupational health and safety management system is an organizational and managerial approach to creating a safety culture within the company (Cooper, 2001).

However, Bosak et al. (2013) emphasized that OSH regulations in companies can be an additional burden for workers, in terms of production targets that must be met. This condition, among other things, triggers a work safety culture that has not worked well. Less optimal safety performance can also be influenced by transformational leadership, namely the leader's capability to influence, motivate, manage activities and interactions between individuals that allows others to build vision and self-confidence. Therefore, they can contribute to the achievement of organizational goals as reflected in the influence of idealism, inspirational motivation, intellectual stimulation, and individual judgment. If a construction service company can provide effective transformational leadership, it has the potential to encourage increased safety performance.

Lievens and Vlerick (2014) stated that transformational leadership has a positive impact on nurses' safety performance. Work safety performance can also be influenced by learning organizations, namely organizations with people who continuously expand their capacity to create the desired results by nurturing new thinking and patterns of expansion, collective aspirations are set free, and people are continually learning how to learn together, as reflected in managerial commitment, systems perspective, openness and experimentation, and transfer and integration of knowledge. If the learning organization in a construction service company is well established, it can improve work safety performance. Karim and Rahman (2018) revealed that learning organizations have an effect on performance, including work safety performance.

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Organizational communication is the process of sending and receiving messages within groups in either formal or informal organization (DeVito, 1997). In addition, organizational communication is the process of creating, sending, and receiving messages in a complex system, involving integrated internal and external network relationships, containing individual work to manage organizational ambiguity and achieve results or goals (Baldwin, Perry & Moffitt, 2004). Moreover, organizational communication reflects patterns, networks, and communication systems within an organization that are designed with the aim that organizational members work effectively to achieve organizational goals (Febrial & Anik, 2020). In a subjective perspective, organizational communication is the organizational behavior and how those involved in the process transact and give meaning to what is happening. In this perspective, the emphasis is on the process of creating meaning for interactions that create, maintain, and change organizations. While the objective definition is the activity of handling messages contained within an organizational boundary. In this perspective, the emphasis is on communication as a tool that allows people to adapt to their environment (Ernika, 2016).

So et al. (2018) stated that organizational communication determines how organizational culture is distributed throughout the company. Barrett (2011) saind that organizational

communication is built on core skills. There are skills that individuals need when they interact with other people, either one-on-one, with groups, or in a broader organizational context. Organizational communication skills begin with emotional intelligence and interpersonal skills, which are needed to interact effectively with others as individuals or groups. Furthermore, this section covers literacy and cross-cultural communication, which involves the ability to understand and appreciate cultural differences and communicate successfully across and working in different cultures. The communications section of the organization includes leading meetings and managing teams, both of which are important skills for the leaders.

Transformational leadership deals with motivating people to overcome their personal interests for the good of the group (Bateman & Snell, 2015). According to Miller (2009), transformational leadership is leadership through a communication process, creating a relationship between leader and follower that helps followers reach their full potential and has the potential to change both leaders and followers. In practice, transformational leaders are able to influence others by using charisma, paying attention to followers, and stimulating others (Ivancevich, Kanopaske, & Matteson, 2016). Transformational leadership is needed by organizations in order to grow, develop, and compete. The transformational leadership model produces significant organizational changes because this form of leadership emphasizes a higher level of intrinsic motivation, trust, commitment, and loyalty from subordinates (Kinicki & Kreitner, 2012). Transformational leadership focuses on how leaders create good performance from followers through transcending self-interested behavior by demonstrating a high need for self-actualization, holding personal values, and implicating motivation of followers. The point is a common bond between leaders and followers in a mutually beneficial goal (Gupta & Surie, 2004). Shen et al. (2017) stated that transformational leadership is very important in construction safety management.

A learning organization is an organization that has developed its capacity to continuously learn, adapt, and change (Robbins & Coutler, 2016). Learning organization is organization that focuses on improving learning and knowledge disseminated throughout the company (Drafke, 2009). White and Burton (2007) stated that organizational learning is the acquisition of knowledge through the application and mastery of new information, tools, and methods. Jerez-Gomez, Cespedes-Lorente, and Valle-Cabrera (2005) said that measuring learning organizations can be done through several dimensions as follows: (a) managerial commitment including managerial support, shared vision and mental models, personal efficacy, leadership management, strategic direction, leadership and intentions, involved leadership, facilitative leadership, and learning orientation; (b) systems perspective including shared vision, systems thinking, systems perspective, clarity of vision intent, and systems orientation; (c) openness and experimentation including openness to new ideas, independent problem solving, continuous innovation, culture of experimentation, integration of external knowledge, creativity, continuous learning, learning from past experiences, learning from others, entrepreneurship, and operational variety; and (d) knowledge transfer and integration including teamwork, team learning, internal knowledge integration, knowledge transfer, group problem solving, and team orientation.

Safety culture is related to the organization. Hudson in Lyndon et al. (2015) and Chen et al. (2018) define safety culture as the shared values, cognitions, commitments, beliefs, communication and attitudes and norms of organizational members that influence their safety

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behavior and have a long-term impact on safety behavior and safety performance. For Turner et al. (in Little, 2011), safety culture is a set of beliefs, norms, attitudes, roles, and social and technical practices related to minimizing the exposure of employees, managers, customers, and members of the public to conditions that are considered dangerous or detrimental. According to Guldenmund (in Coopera et al., 2019), the construction of safety culture has three layers, namely: (1) the lower layer consists of unconscious and undefined (unseen) core basic assumptions where assumptions about safety are not articulated but accepted as a basis for argument or action; (2) the middle layer, based on core basic assumptions, reflects beliefs and values operationalized as a relatively explicit and conscious attitude whose targets are hardware (safety controls), software (effectiveness of safety arrangements), people (functional groups) , and public safety-related behavior; and (3) the artifacts on the top layer are manifestations of the previous two layers, reflecting all visible safety objects (e.g., inspection reports, safety posters, etc.).

Lutchman et al. (2012) mentioned a number of aspects that can affect safety management, which are often referred to as 7Es, namely: (1) engineering: risks and hazards are designed to protect workers during the design phase; (2) enforcement: there are policies and procedures to protect the health and safety of workers; (3) education: training is provided to ensure that workers are competent in performing the assigned work; (4) emotion: working with passion and showing passion for safety among workers; (5) empathy: show workers that you care about them through individual considerations and get to know each worker and show genuine concern for the circumstances of each individual worker; (6) empowerment: giving workers the ability to close an unsafe job at any time without fear of punishment, and they must be able to take responsibility for their health and safety at all times; and (7) engagement: involving workers to be part of developing safety solutions for the workplace, including involvement in the implementation of safety processes and systems.

Gunawan and Waluyo (2018) stated that safety is a human effort to prevent incidents or those that are detrimental to the company, workforce, society, and the natural environment. Meanwhile, Mondy and Noe (in Panggabean, 2016) stated that work safety management includes protecting employees from accidents at work. According to Burke et al. (in Lievens & Vlerick, 2014), safety performance is the behavior shown by employees to promote and comply with safety in the workplace.

RESEARCH METHOD

The respondents of this study are 218 construction workers of PT. Waskita Karya (Persero) Tbk. taken proportionally through random sampling from 480 using the Slovin formula with an error margin of 5% (Nalendra, 2021). Data analysis uses structural equation modeling (SEM), which includes outer and inner model tests. SEM analysis is carried out through 2 stages, namely outer model test and inner model test. Outer model test is to ensure that the model can be trusted through Confirmatory Factor Analysis = CFA test, model accuracy test including Chi-Square Test (□2), probability of Chi-Square P (□2), the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-fitindex (AGFI), and the Normed Fit Index (NNFI) (Mueller, 1996). Meanwhile, the inner model test is to test the hypothesis of the effect of direct exogenous variables to endogenous variables. Data analysis uses Linear Structural RELation (LISREL) software.

RESULTS

Outer Model Test

The results of the model accuracy test show that, from the nine indices, there are two indices categorized as Not Fit ((P (□2) and RMSEA), six indices are categorized as good fit (GFI, AGFI, NFI, NNFI, IFI, and RFI), and one index is categorized as marginal fit (CFI). Therefore, so it can be concluded that the empirical model of the influence of transformational leadership and organizational learning on organizational communication, work safety culture, and work safety performance is in accordance with the theoretical model. As shown in table 1

Inner Model Test

The results of the inner model test which is to test the hypothesis are presented in the path coefficient model as shown in Figure 1 and Figure 2. Meanwhile, the resulting indices to determine the suitability of the model are presented in Table 2.

Figure 1: Path Coefficient
Figure 2:

Based of Figure 1 and Figure 2 showed that the overall exogenous variable has a significance effect to indogenous variables and intervening variables as shown in the following table 2:
Table 2 shows that all exogenous variables (transformational leadership and learning organizations) have a significant effect on the endogenous variables (organizational communication, safety culture, and safety performance). Likewise, the variable between Y1 (Organizational Communication) significantly affects Y2 (Leadership Culture) and Y2 significantly affects Y3 (Safety performance).

The results of the LISREL calculation produced three structural equations, namely: the structural equation of organizational communication variables (Y1), safety culture (Y2), and safety performance (Y3). For organizational communication variables, the structural equations are:
$Y1 = 0.39*X1 + 0.41*X2$, Errorvar = 0.50. $R^2 = 0.50$

From the equation above, transformational leadership variable shows structural coefficient = 0.39 and learning organization = 0.41. The positive structural coefficient value indicates that the effect of transformational leadership and organizational learning on organizational communication is positive, which means that improvement of transformational leadership and organizational learning can improve organizational communication. The variable of transformational leadership and learning organization is able to explain the variation of organizational communication variable by 0.50 (50%).

For the safety culture variable, the structural equation is: $Y2 = 0.26Y1 + 0.30*X1 + 0.19*X2$, Errorvar = 0.59. $R^2 = 0.41$

From the equation above, organizational communication variable shows structural coefficient = 0.26, transformational leadership = 0.30, and learning organization = 0.19. All structural coefficient values obtained are positive, indicating that the influence of organizational communication, transformational leadership, and learning organizations on safety culture is positive, which means that improving organizational communication, transformational

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leadership, and learning organizations can improve safety culture. Organizational communication variables, transformational leadership, and learning organizations are able to explain the variation of the safety culture variable by 0.41 (41%).

For safety performance variable, the structural equation is:
Y3 = 0.47Y2 + 0.29*X1 + 0.26*X2, Errorvar = 0.26. R^2 = 0.74

From the equation above, the variable safety culture shows structural coefficient = 0.47, transformational leadership = 0.29, and learning organization = 0.26. All structural coefficient values obtained are positive, indicating that the influence of safety culture, transformational leadership, and learning organizations on safety performance is positive, which means that improving safety culture, transformational leadership, and learning organizations can improve safety performance. The variables of safety culture, transformational leadership, and learning organization are able to explain the variation of the safety performance variable by 0.74 (74%). In addition, the results of this study show that transformational leadership and organizational learning have a significant indirect effect on safety culture and performance by mediating organizational communication. Transformational leadership has an indirect effect on safety culture and performance by mediating organizational communication, each with path coefficients = 0.10 and 0.19 and tcount = 2.26 and 3.85. While the learning organization has an indirect effect on culture and safety performance by mediating organizational communication, each with path coefficients = 0.11 and 0.14 and tcount = 2.23 and 3.12. All tvalues > ttable value (n = 218, α = 5%) = 1.65. Thus, the indirect effect of transformational leadership and organizational learning on culture and work safety performance with organizational communication mediation is significant.

DISCUSSION

The results of this study indicate that transformational leadership has a positive and significant effect on safety performance. This is because transformational leadership is related to motivating a person to overcome his personal interests for the good of the group (Bateman & Snell, 2015). In the context of the construction industry, transformational leadership is very important in safety management. Continual changes in the construction process require transformational leadership in overcoming various changes that are constantly occurring (Shen et al., 2017; Bass & Avolio, 1990; Widodo & Mawarto, 2020). If the practice of transformational leadership can be well conditioned on the construction service sector company of PT. Waskita Karya (Persero) Tbk., then this can have an effect on improving safety performance, namely the behavior shown by employees to promote and comply with safety in the workplace, both safety compliance and safety participation (Griffin & Neal, in Putri & Hadi, 2014). This finding is consistent with the results of research by Lievens and Vlerick (2014), Inness et al. (2010), and Mullen, Kelloway and Teed (2017) stating that transformational leadership has an effect on safety performance.

Furthermore, the results of this study show that the learning organization has a positive and significant effect on safety performance. It means that when the learning organization is improved, safety performance can increase. A learning organization is an organization in which people continually expand their capacity to create desired outcomes by nurturing new thinking and patterns of expansion, collective aspirations are set free, and people are continually learning how to learn together, which is characterized by managerial commitment, systems

perspective, openness and experimentation, and transfer and integration of knowledge (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrera, 2005; Karim and Rahman (2018) stating that learning organization has an effect on performance, including safety performance.

Safety culture has a positive and significant effect on safety performance. It means that when the safety culture is solid and conducive, it can encourage increased safety performance. This is because the safety culture reflects the internal social environment of the organization which can directly affect the risk of practices in the organization leading to disaster processes to personal injury, as reflected in engineering, enforcement, education, emotion, empathy, empowerment, and involvement (Lutchman et al., 2012), and Aytac and Dursun (2018) stated safety culture influences safety behavior.

Organizational communication has a positive and significant effect on safety culture. This means that improving organizational communication can stimulate a conducive safety culture. This is because organizational communication reflects the process of creating, sending and receiving messages in a complex and integrated system within the organization, which can take place between subordinates and subordinates (horizontal), superiors and subordinates (vertical), and subordinates and superiors from another unit (diagonal). If the communication flow runs smoothly and massively, it can initiate and stimulate the growth of a work safety culture, namely the organization's internal social environment that can directly affect the risk of practices within the organization leading to disaster processes to personal injury, created by engineering, enforcement, education, emotion, empathy, empowerment, and engagement. This finding supports the research of Lümker (2012).

Transformational leadership has a positive and significant effect on safety culture. This is because transformational leadership is related to a person's capability to influence, motivate, manage activities and interactions between individuals. This allows others to build vision and self-confidence so that they can contribute to the achievement of organizational goals. Furthermore, this can be seen from the indicators: the influence of idealism, inspirational motivation, intellectual stimulation, and individual considerations (Bass & Avolio, 1990; Widodo & Mawarto, 2020). If the practice of transformational leadership can be properly conditioned, then it can affect the conduciveness of safety culture as a manifestation of the organization's internal social environment which can directly affect the risk of practice within the organization leading to disaster processes to personal injury, which is reflected in engineering, enforcement, education, emotion, empathy, empowerment, and involvement (Lutchman et al., 2012; Miang, 2017; Rahmawati, Satria and Purnaningsih, 2018), and Aryani and Widodo (2020) stated that transformational leadership has a positive and significant effect on work safety culture.

Learning organization has a positive and significant effect on safety culture. A learning organization is an organization in which people continually expand their capacity to create desired outcomes by nurturing new thinking and patterns of expansion, collective aspirations are set free, and people are continually learning how to learn together. This can be characterized by managerial commitment, systems perspective, openness and experimentation, transfer and integration of knowledge (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrera, 2005). If the learning organization in construction service companies can be properly conditioned, it has the potential to encourage the growth of a more solid and

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conducive work safety culture. This finding confirms the study of Goh, Chan, and Kuziemsky (2013) and Littlejohn, Lukic and Margaryan (2014) that learning organizations have an effect on work safety culture.

Transformational leadership has a positive and significant effect on organizational communication. This is because transformational leadership is related to a person's capability to influence, motivate, manage activities and interactions between individuals. This allows others to build vision and self-confidence so that they can contribute to the achievement of organizational goals. This can be reflected in the influence of idealism, inspirational motivation, intellectual stimulation, and individual consideration (Bass & Avolio, 1990; Widodo & Mawarto, 2020). If the practice of transformational leadership goes well, then it has the potential to encourage the effectiveness of organizational communication, whether it takes place horizontally, vertically, or diagonally. This finding is consistent with Men's (2014) stating that transformational leadership has a significant effect on organizational communication.

Learning organization has a positive and significant effect on organizational communication. This is because learning organizations reflect organizations with people who are continuously expanding their capacity to create the desired outcomes by nurturing new thinking and patterns of expansion, collective aspirations are set free, and people are continually learning how to learn together. This can be characterized through managerial commitment, systems perspective, openness and experimentation, transfer and integration of knowledge (Jerez-Gomez, Cespedes-Lorente & Valle-Cabrera, 2005; Huang and Yao, 2017) which prove that organizational learning has a significant effect on organizational communication.

The results of this study are consistent with the results of previous studies used as the basis for developing hypotheses, thus confirming the results of these previous studies. However, more than that, the results of this study show empirical facts that organizational communication significantly mediates the effect of transformational leadership and organizational learning on safety culture and performance. This empirical fact proves that organizational communication has a vital role in mediating the influence of transformational leadership and organizational learning on culture and work safety performance at PT. Waskita Karya Tbk.

CONCLUSIONS

The results of this study suggest that transformational leadership, learning organization, and safety culture have a positive and significant direct effect on safety performance, as well as to work safety culture and organizational communication. Transformational leadership and organizational learning have a significant indirect effect on safety culture and performance by mediating organizational communication. In addition, the results of this study confirm that organizational communication models also has significant affect to transformational leadership and learning organizations. So it is recommended to improved continuously to make a greater contribution to ensure safety culture and performance, as well as the practice of transformational leadership and learning organizations

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