

Analysis of The Impact of Work Interaction, K3 Culture, and Motivation on Employee Performance

Rudy Surapto¹, Rumanintya Lisaria Putri^{2*}, Roosganda Elizabeth²

¹Faculty of Management, Universitas Terbuka, Jakarta, Indonesia

²Research Center for Cooperative, Corporation and People's Economy, National Research and Innovation Agency, Indonesia

*Corresponding author E-mail: rumanintyalisariaputri@gmail.com

Abstract

Interaction between employees with various backgrounds, employee motivation, and safety culture are part of the chain and integrated aspects to achieve good employee performance. This study aims to analyze the effect of work interaction, safety culture, and work motivation on employee performance at the Underground Maintenance Department, PTFI, Papua, Indonesia. This research is explanatory research, which explains the causal relationship between research variables and hypothesis testing. The results showed a significant and simultaneous influence between work interaction, safety culture, and work motivation on employee performance in the Underground Maintenance Department. In addition, the work motivation variable has a dominant force on performance within the department.

Keywords: *Work Interaction, Safety Culture, Work Motivation, Employee Performance.*

1. Introduction

Development programs in Indonesia today, according to Indonesia. GO.ID (2019), among others, is focused on the real sector (including infrastructure) as a continuation of laying the economic foundation, and the government also prioritizes human resource development (HR). Regarding human resources, Iswanto and Yusuf (2020) argue that human resource management (HRM) occupies a vital role in organizations or companies because the problems companies face do not only concern raw materials, technology/equipment/work processes, production, and capital. Not only work but also the issue of human resources, whose role is to run and manage the company's production factors as well as the goal of the production activity itself. This can be interpreted that company goals can only be achieved with the role of employees and their effective management by each company.

Profit-oriented companies, such as mining companies that are loaded with the use of advanced technology, of course, need human resources who have sufficient knowledge, skills, and expertise to be able to carry out company operations by company expectations and can lead companies to achieve the goal. However, the availability of human resources with various backgrounds in mining companies can also cause internal conflicts due to poor work interactions, such as unhealthy competition, poor communication, disputes between employees, etc. Mining company employees also cannot be separated from work risks that can threaten their health and safety. Bets that have negative implications from an economic point of view can be in the form of an accident in carrying out work which results in loss of employment and income, either temporarily or permanently. Another problem related to company employees is employee demotivation or decreased employee motivation, strikes, etc. These problems can have an unfavorable impact on the performance of employees and the organization, so achieving company goals can also experience obstacles if they are not quickly resolved.

Based on the background above and as an employee of a mining company, I am interested in writing articles or conducting research to find out and analyze the impact of work interaction, safety culture, and work motivation on employee performance in the Underground Maintenance Department, PTFI. This article can be helpful in our department and all readers to be used as a reference in making decisions and other relevant interests.

2. Literature Review

2.1. Work Interaction

According to Ali and Asrori (2010), the definition of interaction is an event when an activity or sentiment carried out by a person against another individual is rewarded or punished by using an activity or view by another individual who is his partner. Understanding the interaction refers to an action carried out by someone in an interaction which is a stimulus for the actions of other individuals who become partners. Interaction is a reciprocal relationship between two or more people, and each person involved plays an active role. In the interaction process, there is not only a relationship between the parties involved but also influences each other.



- a. According to Soekanto (2012), social interaction is a visible form when people hold relationships with each other, individually and as a group. The conditions of social interaction can be in the form of the following:
- b. Cooperation (cooperation) is a joint effort between individuals or groups to achieve specific goals. Collaboration arises because of the orientation of individuals toward their group (in a group) and other groups (out-group).
- c. Competition (competition) is a struggle of certain parties to achieve a goal by eliminating opposing parties peacefully or without using threats or violence.
- d. Conflict (conflict) is a form of interaction where the interpretation of the meaning of behavior is not by the intentions of the first party (who acts), causing incompatibility between the interests of other people because this harmony does not occur, so to be able to achieve the desired goal it is carried out by eliminating or getting rid of other parties that become obstacles
- e. Accommodation, the term accommodation, is used in two ways: to refer to a situation and a process. Accommodation, which refers to a problem, means a balance (equilibrium) in the interaction between individuals or groups of people about social norms and values prevailing in society. As a process, accommodation refers to human efforts to defuse a conflict, namely measures to achieve stability. Accommodation is a way to resolve disputes without destroying the opponent so that the opponent does not lose his personality.

From the literature review above, work interaction within an organization also includes forms of social interaction. Social interaction covers a broader field. Thus, work interaction is part of social interaction, which is visible when people hold relationships with each other individually and as a group within an organization. Interaction occurs when an individual takes action, causing a reaction from other individuals, and because that interaction occurs in social life. Interaction is a developmental cycle of social structure, a dynamic aspect of social life.

Susanto (2011), Mustofa (2012), Satrio (2013), and Febrianti (2014) concluded their research results that social interaction has a positive impact (> 65%) on performance. Related to the management of social skills that can support achievement/performance and productivity, there is the concept of a social interaction learning model such as research conducted by Bali (2017). This model emphasizes the formation of excellent and realistic personal ideas in presenting productive interactions with fellow employees and the work environment.

2.2. Occupational Health and Safety Culture (K3)

According to the Decree of the Minister of Manpower of the Republic of Indonesia No. 245/Men/1990 dated 12 May 1990, stated that "1) OSH culture is a performance behavior, a pattern of assumptions that underlies one's perceptions, thoughts, and feelings related to OSH; 2) Empowering is an effort to develop independence which is carried out by raising awareness, willingness and ability to act and understand a problem, and 3) Cultivation is an effort/process of empowering workers so that they know, understand, act according to norms and rules and become role models or reference for other workers.

Examining the understanding of organizational culture and OSH culture (safety culture) above, it can be explained that OSH culture is a form of shared behavior, attitudes, and values to achieve the degree of healthy and safe performance, which is the top priority of an organization. In addition, OSH culture is part of the overall organizational culture.

Thus, the importance of this K3 culture is that it is necessary to manage the culture as well as possible to be effective. Tofte and Schumacher (2010) offer six elements of an effective safety process, namely: "1) Written Safety Policies, 2) Safety Training, 3) Safety As Part of a Job Description. from Job Descriptions), 4) Claims Management (Rights/Claims Management), 5) Benchmarking (Comparing and Selecting Best Practices), and 6) Self-Evaluation (Self-Evaluation for improvements)".

Furthermore, Tofte and Schumacher (2010) stated: "The current shape of your company's safety culture always starts at the top and works its way down through the chain of command, much like the switch that activates the engine. Management and employees shape the culture by what they value and believe in, the assumptions each group makes of the other groups within the company or the attitudes in which interactions occur throughout a work day.

The form of OSH culture that every organization currently owns must be distinct from the strategy adopted by the top leadership of the organization, where the strategy is translated from the vision and mission of the organization concerned. Sobirin (2009) states, "strategy is culture, and culture is strategy". This means that OSH culture is part of the organization's overall strategies for achieving its goals, including improving its performance. Singgih (2011) and Wahjoe (2012) revealed that the safety culture variable influences employee performance by > 55%. In terms of the implementation of the K3 management system, Fitriana & Wahyuningsi (2017) concluded the results of their research that the performance of the K3 management system (part of the K3 culture) of a company with an implementation achievement of 60.9% is included in an exemplary implementation level.

2.3. Motivation

Talking about motivation cannot be separated from the theories of needs put forward by Maslow, McClelland, McGregor, Herzberg, and so on. Hasibuan (2007) states that motivation is the driving force that creates enthusiasm for one's work so that one wants to work together effectively and be integrated with all their efforts to achieve satisfaction. Robbins and Coulter (2010) argue that motivation refers to the process by which a person's efforts are energized, directed, and sustained toward achieving a goal. This definition has three key elements: energy, direction, and persistence.

Sudarmo et al. (2008) state that the motivation process consists of several stages, namely: 1) the emergence of a need that has not been met causes an imbalance in a person and tries to reduce it by behaving in a certain way; 2) someone then looks for ways to satisfy that desire; 3) a person directs his behavior towards achieving goals or achievements in the ways he has chosen, supported by his abilities, skills, and experience; and 4) achievement assessment is carried out by oneself or other people regarding their success in achieving goals. Febrianti (2014), Satrio (2013), and Ma'rifah (2014) reported the results of their research that work motivation variables affect employee performance by > 60%. Marjaya and Pasaribu (2019) said the results of their study showed that motivation has a positive impact on performance but is insignificant. Nugroho et al. (2017) stated that organizational inspiration and human resources in implementing OSH and facilities from the organization play a vital role in cultivating OSH.

2.4. Performance

Of the many opinions regarding the definition of performance, I can put forward several purposes of performance. According to Irbansyah (2011), performance, namely "Firm's Performance refers to the real & perceived accomplishments that result from a manufacturer-distributor relationship. Improved Firm's Performance is a function of a competitive advantage" (company performance refers to real and perceived achievements as a result of the relationship between manufacturers and distributors. Improved company performance is a function of competitive advantage).

Riniwati (2011) suggests that performance is the extent to which a person has played for him in carrying out organizational strategy, achieving specific goals related to individual roles, and or demonstrating competencies declared relevant to the organization. Performance is a multi-dimensional concept covering three aspects: attitude, ability, and accomplishment.

Sinambela (2012) argues that performance is the ability of employees to do specific skills. Employee performance is necessary because it will be known how far the employee can carry out the tasks assigned to him. For this reason, it is essential to determine clear and measurable criteria and jointly set them as a reference. McCormick and Tiffin (1995) in Suharto & Cahyono (2005) explain that two variables affect performance including:

- a. Individual variables
Individual variables include experience, education, gender, age, motivation, physical condition, and personality.
- b. Situational variables
Situational variables involve two factors, namely:
 1. Social and organizational factors, including policy, type of training and experience, wage system, and social environment.
 2. Physical and occupational factors, including working methods, arrangements and conditions, work equipment, workspace arrangements, noise, irradiation, and temperature.

Based on some previous research references above, social interaction, safety culture, and motivation impact employee performance.

3. Methods

Based on the formulation of the problem and research objectives that have been set, the type of research used is explanatory. According to Zulganef (2018), descriptive research is a study that explains the causal relationship between research variables and hypothesis testing, namely research that analyzes or proves the relationship between formulated variables. This study uses a quantitative approach; as the name implies, the quantitative approach uses numbers a lot. According to Sugiyono (2019), the quantitative approach can be interpreted as a research method based on the philosophy of positivism, used to examine specific populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of testing established hypotheses.

4. Results and Discussion

4.1. Effect of Work Interaction (X1) on Employee Performance (Y)

Based on the data obtained and processed as well as the results of statistical analysis and hypothesis testing, it is found that:

- a. The regression coefficient B of work interaction (X1) is -0.597 (b 1), indicating that the magnitude of the effect of work interaction (X1) on employee performance at the company (Y) is negative (-0.597). This means that the worse or worse the work interactions within the company, the worse the impact on employee performance will be.
- b. calculated t value for the Work Interaction variable (X1) is -3.909 > t table (-2.025), so that work interaction hurts performance (Y), meaning that if there is terrible work interaction, it will also hurt performance. This negative (-) work interaction value needs to get attention because it is alleged that there is an unfavorable work interaction between employees in the company.

Every interaction always in it implies the existence of interpersonal communication and vice versa. Every interpersonal communication always contains exchange in it. It's hard to separate between the two.

4.2. Influence of K3 Culture (X 2) on Employee Performance (Y)

Based on the data that has been obtained and processed as well as the results of statistical analysis and hypothesis testing, it is found that:

- a. The B regression coefficient of OSH culture (X 2) is 0.342 (b 2), indicating the magnitude of the influence of OSH culture (X 2) on employee performance in the company. The value of coefficient B for K3 culture is positive (0.342). This means that the better the K3 culture of employees at work within the company, it will have the better impact on employee performance.
- b. calculated t value for the K3 Culture variable (X 2) is 2.759 > t table (2.025) so that work culture has a positive effect on performance (Y), meaning that there is a good work culture influence in the company as evidenced by positive work culture values (+) so that a good work culture needs to be maintained.

4.3. Effect of Motivation (X3) on Employee Performance (Y)

Based on the data that has been obtained and processed as well as the results of statistical analysis and hypothesis testing, it is found that:

- a. The B coefficient of motivation regression (X3) is 0.367 (b 3), indicating the magnitude of the influence of motivation (X2) on employee performance in the company. The value of coefficient B for the cause is positive (0.367). This means that the better the motivation of employees to work in the company, the better the impact on employee performance.
- b. The calculated t value for the variable Motivation (X3) is 2.966 > t table (2.025), so that work motivation has a positive effect on performance (Y), meaning that there is an influence of good work motivation within the company as evidenced by a positive value (+), so that good work motivation needs to be maintained.

4.4. K3 Culture (X2), Motivation (X3) on Employee Performance (Y)

Based on the data that has been obtained and processed as well as the results of statistical analysis and hypothesis testing, it is found that:

- a. The results of the F test, namely the simultaneous effect of the variables Work Interaction (X1), K3 Culture (X2), and Motivation (X3) on Performance (Y) at PT-FI, get an F calculated value of 12,500. The F table value for 100 respondents at df 3 Residual 96 is 2.048. This test obtains an F count > i F table (12,500 > 2, 048), meaning that there is a significant effect simultaneously on Work Interaction (X1), K3 Culture (X2), Motivation (X3) on Performance (Y) at PT-FI.
- b. The multiple correlation value (R) of 0.753 indicates that there is a strong and unidirectional relationship between Work Interaction (X1), K3 Culture (X2), Motivation (X3), and employee performance (Y) at PT. Freeport Indonesia. The results of this study prove that the value for the coefficient of determination (R square) is 0.628. This figure indicates that there is a relatively strong influence on the variables Work Interaction (X1), K3 Culture (X2), Motivation (X3), and Employee Performance (Y) at PT-FI, which is equal to 62.8%, so the remaining is 37.2%. The performance of employees in the company is caused or influenced by other variables that are not included in this research variable.

- c. The Work Interaction Variable (X1) has a t value of -3.909 and a Beta value of Standardized Coefficients of -0.580; for the K3 Culture variable (X2) it has a calculated t value of 2.759 and a Beta value of Standardized Coefficients of 0.412; and the variable work motivation (X3) has an estimated t value of 2.966 and a Beta value of Standardized Coefficients of 0.508 (dominant influence).

5. Conclusion

Research on Analysis of the Effects of Work Interaction, K3 Culture, and Work Motivation on Performance (Case Study in the UG Maintenance Department, Mine Maintenance Division, PTFI, Papua) concludes that:

1. The multiple correlation value (R) of 0.753 indicates that there is a strong and unidirectional relationship between Work Interaction (X1), K3 Culture (X2), Motivation (X3), and employee performance (Y) at PTFI. The results of this study prove that the value for the coefficient of determination (R square) is 0.628. This figure indicates that there is a relatively strong influence of the Work Interaction (X1), K3 Culture (X2), and Motivation (X3) variables on employee performance (Y) at PTFI, which is equal to 62.8%, so the remaining is 37.2%. The performance of employees in the company is caused or influenced by other variables that are not included in this research variable.
2. The results of the F test are the simultaneous effect of the variables Work Interaction (X1), K3 Culture (X2), and Motivation (X3) on Performance (Y) at PT. Freeport Indonesia obtained an F_{count} of 12,500. The F_{table} value for 100 respondents at df 3 Residual 96 is 2.048. This test receives an $F_{\text{count}} > F_{\text{table}}$ ($12,500 > 2,048$), meaning that there is a significant effect simultaneously on Work Interaction (X1), OHS Culture (X2), and Motivation (X3) on Performance (Y) at PTFI.
3. The Work Interaction Variable (X1) has a t value for this variable of $-3.909 > t_{\text{table}}$ (-2.025), so that work interaction hurts performance (Y), meaning that if there is terrible work interaction, it will also hurt performance. This negative (-) work interaction value needs to get attention because it is alleged that there is an unfavorable work interaction between employees in the company. The K3 Culture Variable (X2) has a t value for this variable of $2.759 > t_{\text{table}}$ (2.025), so that work culture has a positive effect on performance (Y), meaning that there is a good work culture influence in the company as evidenced by positive work culture values (+) so that a good work culture needs to be maintained. The work motivation variable (X3) has a calculated t value for this variable of $2.966 > t_{\text{table}}$ (2.025), so work motivation has a positive effect on performance (Y), meaning that there is an influence of good work motivation within the company as evidenced by a positive value (+), so that good work motivation needs to be maintained.
4. The Work Interaction Variable (X1) has a t value of -3.909 and a Beta value of Standardized Coefficients of -0.580. The K3 Cultural Variable (X2) has a calculated t-value of 2.759 and a Beta value of Standardized Coefficients of 0.412. The work motivation variable (X3) has an estimated t-value of 2.966 and a Beta value of Standardized Coefficients of 0.508. Thus the work motivation variable (X3) has a dominant effect on performance (Y) at PTFI.

References

- [1] Agus, S. (2013). Social Interaction Within the Company. Bandung: Youth Rosdakarya.
- [2] Ali, M. & Asrori, M. (2010). Adolescent Psychology: Student Development. Jakarta: PT. Script Earth.
- [3] Anthony, T. & Hastuti, T. (2003). Human Resource Management. Jakarta: University of Indonesia Press.
- [4] Asrori, B. (2012). Social Interaction and Rhetoric Within the Company. Yogyakarta: Liberty.
- [5] Chairul, M. (2012). The Effect of Social Interaction and Work Conflict on Employee Performance at PT. Astra International Indonesia, Tbk Jakarta. Diponogoro University Semarang Thesis Journal.
- [6] Bali, MME (2017). Model of Social Interaction in Elaborating Social Skills. Pedagogic Journal, Vo. 04, No. 02:211-227. ISSN : 2354-7960, E-ISSN : 2528-5793.
- [7] Firiana, L. & Wahyuningsih, AS (2017). Implement the Occupational Health and Safety Management System (SMK3) at PT. Ahmadaris. HIGEIA: Journal of Public Health Research and Development, State University of Semarang, Vol. 1, No. 1: 29-35. p ISSN 1475-362846, e ISSN 1475-222656.
- [8] <http://journal.unnes.ac.id/sju/index.php/higeia>
- [9] Febrianti, K. (2014). The Effect of Social Interaction and Work Motivation on Work Productivity of PT. Good Year, Tbk Jakarta Indonesia. Diponogoro University Semarang thesis.
- [10] Hasibuan, SP (2007). Human Resource Management: Basics and Keys to Success. First Print. Jakarta: CV. Haji Mas Agung.
- [11] Iswanto, Y. & Yusuf, A. (2020). Human Resource Management. South Tangerang: Open University.
- [12] Kaswan. (2019). Strategic Human Resource Management. Yogyakarta: CV. Andi Offset.
- [13] Marjaya, I., & Pasaribu, F. (2019). The Influence of Leadership, Motivation, and Training on Employee Performance. Scientific Journal of Master of Management, Vol. 2, No. 1, March 2019: 129-147. ISSN 2623-2634 (online).
a. DOI: <https://doi.org/10.30596/maneggio.v2i1.3650>
- [14] Mustofa, C. (2012). The Effect of Social Interaction and Work Conflict on Employee Performance at PT. Astra International Indonesia, Tbk Jakarta. Thesis Journal. Semarang: Diponogoro University.
- [15] Nugroho, A., Trisnowati, H., Puspitawati, T., Pratiwi, R., Landis, MV, Bu'u, NM, and Saputra, JA (2017). Implementation of Safety and Occupational Health Culture of The Companies at Sleman, Yogyakarta. Journal of Formal (Scientific Forum) KesMas Respati, Vol. 2, No. 2, October 2017: 63-75. p-ISSN 2502-5570, e-ISSN 2550-0864.
- [16] Pangestoeti (2012). Occupational Health and Safety and Their Influence on Employee Performance in the Employees of the Production Section of PT. Indomarine Malang. Thesis for the Master of Management Program, Faculty of Economics and Business. Malang: Brawijaya University.
- [17] Priono. (2011). Occupational Safety and Health and Their Influence on Employee Performance at PT. Indofood Success Prosperous Tanah Laut District. Thesis for the Master of Management Program, Faculty of Economics and Business. Banjarmasin: University of Lambang Mangkurat.
- [18] Riniwati, H. (2011). Boosting Motivation and Performance: HR Empowerment Approach. Malang: UB Press.
- [19] Santoso, B. (2014). Social Interaction Within the Company. Journal of Human Resource Management. Accessed July 10, 2015. via www.google.com/Interaksi-social.html.
- [20] Sinambela, LP (2012). Employee Performance. First Print. Yogyakarta: Science Graha.
- [21] Sobirin, A. (2009). Organizational culture. Yogyakarta: UPP STIM YKPN.
- [22] Soekanto, S. (2012). Sociology (An Introduction). Jakarta: PT Raja Grafindo Persada.

- [23] Sudarmo, Gito, and Indriyo. (2008). Organizational behavior. Yogyakarta: BPFE.
- [24] Suharto & Cahyo, B. (2005). The Influence of Organizational Culture, Leadership and Work Motivation on Human Resource Performance, at the secretariat of the DPRD, Central Java Province. JRBI. Vol. 1, No.1, January 2005: 13-30.
- [25] Sugiyono. (2019). Quantitative Research Methods, Qualitative, and R & D. Bandung : Alfabeta.
- [26] Susanto, H. (2011). Analysis of Social Interactions and Work Discipline on Employee Performance at PT. Gudang Garam Indonesia, Tbk Kediri. Thesis of the Faculty of Economics, University of Brawijaya Malang.
- [27] Tofte, D. & Schumacher, JE (2010). Safety Culture and an Effective Safety Process. WasteAdvantage Magazine, July 2010, 27-30.
- [28] Trisya, N. & Sutiadiningsih, A. (2013). The Effect of Work Motivation on Employee Performance in the Production Department at Citra Bakery Gresik Company. E-journal Boga, 2(3), 59-68.
- [29] Zulganef. (2018). Business and Management Research Methods. Bandung: PT Refika Aditama.