The effect of leadership and the work environment through job satisfaction on employee performance at the national disaster management agency Jakarta

Eri Sri Utami, Suharto and Harry Indratjahyo

Abstract
This study aims to examine and analyze the influence of leadership and work environment on employee performance with employee job satisfaction at the National Disaster Management Agency Jakarta. Data collection was carried out through questionnaires totaling 45 respondents. Data analysis uses path analysis. The results showed that the variable job satisfaction proved to be an intervening variable on the direct influence of leadership and work environment on employee performance.

Keywords: Leadership, work environment, employee satisfaction, and employee performance

Introduction
The National Disaster Management Agency (BNPB) was formed not apart from the development of disaster management during the independence period until natural disasters in the form of a devastating earthquake in the Indian Ocean in the 20th century. Meanwhile, these developments were greatly influenced by the context of the situation, scope and paradigm of disaster management. The various disasters that have arisen in Indonesia are motivated by geographical, geological, hydrological, and demographic conditions, prompting Indonesia to build a vision to build the nation's resilience in dealing with disasters.

Indonesian territory is the largest group of islands in the world. The region, which is also located between the continents of Asia and Australia and the Indian Ocean and Pacific, has 17,508 islands. Despite the extraordinary natural wealth and beauty of the islands, the Indonesian people need to realize that this archipelago has 129 active volcanoes, or known as the ring of fire, and is located at the confluence of three active tectonic plates in the world, the Indo-Australian Plate, Eurasia and the Pacific.

The ring of fire and being at the confluence of three tectonic plates places this island nation with the potential to the threat of natural disasters. On the other hand, Indonesia's position in the tropics and its hydrological conditions have triggered other natural disasters, such as whirlwinds, extreme rain, floods, landslides and drought. Not only natural disasters are a threat, but also non-natural disasters often hit the country such as forest and land fires, social conflicts, and technological failures.

Facing the threat of disaster, the Government of Indonesia has an important role in building a disaster management system in the country. The formation of institutions is one part of the system that has been processed from time to time. BNPB in maximizing its role and function prioritizes improving the quality of its human resources. Aaker (1989) revealed the same thing that managing resources and skills-competencies are the keys to achieving a competitive advantage. BNPB's performance in 2016 was assessed based on five indicators, namely the number of districts/cities facilitated by disaster risk assessment, average response time for disaster events, a percentage increase in rehabilitation and reconstruction completion of post-disaster disasters, percentage of regions that have logistics and adequate disaster management equipment, and the average time for disseminating information on disaster events. Of the five evaluation criteria conducted in 2016, the lowest value is found in the percentage of improvement in the rehabilitation and reconstruction completion of post-disaster areas.
This indicator is related to the ability of each possessed by BNPB in carrying out existing tasks and functions. Leadership plays an important role in the organization. One of the successes of an organization is determined by the resources available in the organization. Rosita (2016) [20] in her research stated that job satisfaction directly affects employee performance positively and significantly. Robbins cited by Novelia (2011) [16] states that job satisfaction is defined as an individual's general attitude towards his work. Employees can judge how satisfied or unsatisfied they are with their work. Job satisfaction can be viewed from two sides, in terms of employees, job satisfaction will bring a pleasant feeling at work, while from the company side, job satisfaction will increase productivity, improve employee attitudes and behavior in providing excellent service (Suwanto and Priansa, 2011) [29].

Besides, a very important factor is the leadership factor. The main role of leadership is to influence others to achieve their stated goals (Solih and Hersugondo, 2008) [25]. The work produced by each individual will contribute to achieving the goals and objectives of the organization. This is in line with Zusnita's research (2014) [14] which suggests that leadership significantly influences employee performance. The issue of leadership change has become a problem in the BNPB environment. It is well known that along with the change of leadership, it is always followed by a change of the system which ultimately aims to improve the performance of the organization they lead. This change has an impact on the satisfaction and performance of each individual in it. This is in line with research by Suprapt, Sintaasih, and Riana (2015) [11] which revealed that there is a positive and significant influence between leadership on job satisfaction, positive and significant between leadership on performance. Another factor that also supports a person's performance is based on Rahmawanti, Svasto and Prasetya's research (2014) [15] which revealed that the physical and non-physical work environment influences employee performance. A work environment is a place where employees do activities every day. The work environment can affect employee emotions (Lewa and Subowo, 2005) [10]. If the employee likes the work environment where he works, then the employee will feel comfortable doing activities, so that working time is used effectively. The work environment includes work relationships formed between fellow employees and work relationships between subordinates and superiors as well as the physical environment where employees work (Sedarmayanti, 2009) [22]. The work environment in a company is an important thing to consider. On the other hand, the work environment influences job satisfaction as revealed by Aruan and Fakhri (2015) [13] which revealed that the physical work environment and non-physical work environment have the most positive and significant influence on employee satisfaction. Work environment problems that occur at BNPB become a complex problem because it is closely related to the patterns and models of leadership that are applied.

**Literature Review**

**Employee Performance**

Organizations in achieving the goals and objectives set can not be separated from the achievement of the targets of each employee they have. The work of each employee contributes to the organization in achieving the goals set. The work results of each employee that is still minimal are expected to continue to be improved and improved, and vice versa good work results can be maintained. The importance of organizational attention in improving the performance of each employee is the key to the success of the organization itself in achieving the goals and objectives set. To better understand the concept of employee performance, the authors describe several definitions and concepts of employee performance as follows.

Moheriono (2010: 11) [13] defines employee performance as a result of performance that can be achieved by someone or a group of people in an organization both qualitatively and quantitatively, following the authority, duties, and responsibilities of each to achieve the goals of the relevant organization legally, does not violate the law and following morals or ethics. Rivai (2009: 549) [18] revealed that performance is a real behavior that is displayed every person as a work achievement produced by employees following their role in the organization. Furthermore Mangkunegara (2007: 9) [12], employee performance is the work of quality and quantity achieved by an employee in carrying out their duties following the responsibilities given to him. From some understanding of employee performance, the authors understand the performance of employees in this study as the level of achievement or the work of someone of the goals to be achieved or tasks that must be carried out within a certain time.

Sudarmanto (2009: 11) [26] revealed that performance indicators are aspects that become a measure in assessing performance. Measures are used as benchmarks in assessing performance. Indicators or performance measures are needed because they will benefit both parties. Indicators or measurements that can be used as benchmarks in assessing employee performance include the following:

1. The quality of work, namely the level of error, damage, accuracy.
2. Work quantity, i.e. the amount of work produced.
3. The use of time at work, namely the level of absence, tardiness, effective working time / lost work hours.
4. Cooperation with others at work.

**Job Satisfaction**

Feeling satisfied is generally characterized as a positive feeling which then impacts the positive behavior in a person in carrying out various activities they have. The nature of job satisfaction itself is very individual, which means the view of feeling satisfied between an individual and other individuals will be very different. This is because each individual is a unique creature that is different from one another so that the value system adopted to measure job satisfaction owned by each individual will also be different. In general, the way to measure job satisfaction is to look at how many aspects of the job are following one's wishes. The more aspects that have been fulfilled, the higher the level of job satisfaction that the person has.

Robbins and Judge (2013: 108) [9] specifically describe job satisfaction as a person's positive feelings for the work obtained from an evaluation of the characteristics of satisfaction itself. These positive feelings are generally synonymous with a sense of happiness and comfort because someone's expectations from their work have been fulfilled. Siagian (2013: 295) [24] said that: "Job satisfaction is a perspective of someone both positive and negative about their work". Furthermore, Sutrisno (2014: 75) [5] cites the opinion of Handoko (1992) [6] argues that: "Job satisfaction
is an emotional state that is pleasant or unpleasant for employees looking at the work done. Job satisfaction reflects someone's feelings towards his work ". Bangun (2012: 327) [4] states that: "Job satisfaction is when an employee can feel the work whether it is fun or not pleasant to do". From some of the definitions above, it can be explained that job satisfaction is a person's feelings or responses to a job, where a person receives the results of what he does following what he expects, wants, and thinks about. Indicators commonly used to measure job satisfaction of an employee according to Robbins and Judge cited by Puspitawati (2013: 18) [19], namely:

1. The job itself, which is the main source of satisfaction where the job provides interesting assignments, opportunities to learn, opportunities to accept responsibilities and progress for employees.
2. Salary / Wages, which is a multidimensional factor in job satisfaction. The amount of wages/money received by employees is an assessment of satisfaction, which can be seen as something that is considered appropriate and appropriate.
3. Promotion, which is an opportunity to develop intellectually and expand expertise to be an important basis for attention to advance in the organization to create satisfaction.
4. Supervision, which is the supervisor's ability to provide technical assistance and behavioral support. The first is employee-centered, measured by the degree to which supervisors use personal interest and care for employees. Second is the climate of participation or influence in decision making that can affect employee work.
5. Coworkers, namely cooperative colleagues are the simplest source of job satisfaction. Working groups, especially compact teams act as a source of support, comfort, advice, and assistance to individual members.

Leadership
Leadership is needed by the organization to achieve the goals of an organization. Leadership is an action taken by individuals or groups to coordinate and give direction to other individuals or groups and more importantly is how individuals can behave properly and pleasantly under wise leaders. A leader must also pay attention to variations in the character of group members. Employees are required to follow the direction of their leaders because leaders who are considered capable of being an influence for employees to be able to have the same goals as the organization. Besides, leadership has a very important role in improving the quality of employee work. Therefore leaders must be sensitive and caring in maintaining a harmonious atmosphere in the work environment to maintain and motivate employees towards maximum productivity.

There are several kinds of notions about leadership, according to Wukir (2013: 134) [30], providing an understanding of leadership which is the art of motivating and influencing a group of people to act towards a common goal. Furthermore, Samsudin (2009: 287) [21] defines leadership as the ability to convince and move others to want to work together under his leadership as a team to achieve a certain goal. Then according to Rachmawati (2004: 67) [8] leadership can be interpreted as the ability to influence the group toward the achievement of goals or an effort to use the style of influence and not force to motivate individuals in achieving goals. Based on the above definition the author understands leadership as an ability or expertise that is in someone in moving or motivating an individual or group to achieve the goals set. Sunyoto (2013: 39) [28] revealed that leaders use different types of skills that can be measured through:

a. Technical Skills
This skill refers to a person's knowledge and skills in one type of process or technique. These skills are a prominent feature of work performed at the operational level, but when employees are promoted to leadership responsibilities, technical skills are proportionately less important.

b. Human Skills
Human skills are the ability to work effectively with people and foster teamwork. Every leader at all levels of the organization requires effective human skills. This is an important part of leader behavior.

c. Conceptual Skills
Conceptual skills are the ability to think and relate to models, frameworks, broad relationships such as long-term plans. These skills are becoming increasingly important in higher managerial work. Conceptual skills deal with ideas, whereas human skills focus on people and technical skills on objects.

Work Environment
In carrying out organizational activities, the work environment is all conditions that are around the workers, so that both, directly and indirectly, can affect themselves in carrying out the tasks assigned. A good and pleasant work environment will lead to enthusiasm and passion for work, and vice versa if an unpleasant work environment will be able to reduce morale and passionate work. The condition of the work environment is said to be good if the people involved in it can carry out activities optimally, healthy, safe and comfortable. The suitability of the work environment can be seen as a result of a long time. A poor working environment can require more labor and time and does not support obtaining an efficient work system design. Sofyan (2013: 20) [7] defines the work environment as everything around employees that affects themselves in carrying out and completing tasks given to them in an area. The work environment is one of the factors that can affect a person's performance, the person will work happily if the place where he works feels safe and comfortable. Furthermore, Sedarmayanti (2012: 21) [21] defines the work environment is the overall tools and materials faced by the surrounding environment in which a person works, work methods, and work arrangements both as individuals and as groups.

From some of the opinions above, in this study, the work environment is defined as everything that is around the employee at work, both physical and non-physical, which can increase employee morale. Sedarmayanti (2012: 28) [23] states that the work environment can be measured through indicators as follows:

1. Physical environment
2. Non-physical work environment
Research Methods
Population and Sample
Population according to Umar (2008: 137) is defined as a collection of elements that have certain characteristics in common and have the same opportunity to be selected as sample members. The population in this study was 45 operational and technical staff at the Jakarta National Disaster Management Agency.

Suharsimi (2009: 131) defines the sample as a part or representative of the population under study. To obtain a representative sample from the population, every subject in the population is strived to have the same opportunity to become a sample. The sampling techniques used in this study are probability sampling and simple random sampling. According to Sugiyono (2009: 66) what is meant by probability sampling is a sampling technique to provide equal opportunities for each member of the population to be elected as a sample member. Whereas what is meant by simple random sampling is a way of taking samples from members of the population using random without regard to strata (levels) in the members of the population. The number of samples was 45 respondents.

Research Results and Discussion
Effect of leadership and work environment on employee performance
R square value on the influence of leadership and work environment variables on employee performance is equal to 0.923. This value can be interpreted that variations in changes in employee performance variables can be explained by variations in changes in leadership and work environment variables by 92.3% while the remaining 7.7% is influenced by other variables outside of leadership and work environment.

The calculated F result obtained is 12,996 when compared to f table (alpha = 0.05 DF = 2; 43), then the f-table value is 3.21. From the results of f-arithmetic and f-table obtained when compared can be concluded that the value of f-arithmetic is greater than f-table. From the analysis described in the analysis of the simultaneous influence of leadership and work environment variables on employee performance, it can be concluded that the hypothesis stating "leadership and work environment influences employee performance at the Jakarta National Disaster Management Agency" is tested and proven. With the acceptance of this hypothesis, it is relevant to the study of Zusnita (2014) and research by Nela, Swasto, and Prasetya (2014).

The simultaneous influence of leadership and work environment variables on employee performance can be seen from the compiled equation, $Y = 0.141x_1 + 0.342x_2$

The influence of leadership and work environment variables has a positive effect on employee performance. The value of the standardized leadership coefficient is a regression coefficient of leadership variable which means that if the applied leadership model is suitable, employee performance increases by 0.141. Standardized Coefficients value of the work environment is a regression coefficient of the work environment variable which means that if the work environment is improved, employee performance follows the increase of 0.342.

In the research model, this equation can be seen in the model image below.

Effect of leadership and work environment on job satisfaction
R square value on the influence of leadership and work environment variables on job satisfaction that is equal to 0.961. This value can be interpreted that variations in changes in work satisfaction variables can be explained by variations in changes in leadership variables and work environment by 96.1% while the rest of 3.9% is influenced by other variables outside of leadership and work environment.

The calculated F result obtained was 52,761 when compared to f-table (alpha = 0.05 DF = 2; 43), then the f table value was 3.21. From the results of the f-arithmetic and f table obtained when compared can be concluded that the value of f arithmetic is greater than f-table. From the analysis described in the analysis of the simultaneous influence of leadership and work environment variables on job satisfaction, it can be concluded that the hypothesis stating "leadership and work environment influences job satisfaction at the National Disaster Management Agency in Jakarta" This hypothesis is tested and proven. With the acceptance of this hypothesis, it is relevant to the research of Suprapta, Sintaasih, and Riana 2015.

The simultaneous effect of leadership and work environment variables on job satisfaction can be seen from the compiled equation, $Y = 0.270x_1 + 0.370x_2$

The influence of leadership and work environment variables has a positive effect on job satisfaction. The value of standardized leadership coefficients is a regression coefficient of leadership variables which means that if the applied leadership model is suitable, job satisfaction increases by 0.270. Standardized Coefficients value of the work environment is a regression coefficient of the work environment variable which gives meaning if the work environment is impro

Fig 1: Analysis Model 1
environment is improved then job satisfaction follows the increase of 0.715.

In the research model, this equation can be seen in the model image below.

**Effect of job satisfaction on employee performance**
R square value on the partial effect of job satisfaction variables on employee performance that is equal to 0.926. This value can be interpreted that variations in changes in employee performance variables can be explained by variations in changes in the variable job satisfaction by 92.6% while the rest of 7.4% is influenced by other variables outside of job satisfaction.

The partial effect of job satisfaction variables on employee performance can be seen from the compiled equation \( Y = 0.621x_3 \)

From the analysis described in the analysis of the partial effect of job satisfaction variables on employee performance, it can be concluded that the hypothesis stating "Job satisfaction on employee performance at the Jakarta National Disaster Management Agency" is tested and proven. With the acceptance of this hypothesis, it supports the research of Rosita and Yuniati (2016)\(^{[20]}\).

**The influence of leadership through job satisfaction on employee performance**
From the results of data processing that has been done, it can be described several equations that can be arranged for the variables discussed as follows.

Equation I
\[
Y = f(x_1) = b_1x_1 \\
Y = 0.141x_1
\]

Equation II
\[
Y = f(x_2) = b_2x_2 \\
Y = 0.342x_2
\]

Equation III
\[
X_3 = f(x_1) = b_3x_1 \\
X_3 = 0.270x_1
\]

Equation IV
\[
X_3 = f(x_2) = b_4x_3 \\
X_3 = 0.715x_2
\]

Equation V
\[
Y = f(x_3) = b_5x_3 \\
Y = 0.621x_3
\]

The direct effect that can be arranged ie:
\[
Y = 0.141x_1 \\
Y = 0.342x_2 \\
Y = 0.621x_3
\]

The indirect influence of leadership on employee performance through job satisfaction that can be compiled: \((0.270)(0.621) = 0.167\)

In the research model, this equation can be seen in the model image below.
From the direct and indirect effects described can be explained that the magnitude of the direct influence of leadership on employee performance is equal to 0.141, while the magnitude of the indirect effect of leadership on employee performance through job satisfaction is 0.167. From the explanation above it can be concluded that the value of the direct influence is smaller than the value of the indirect effect which gives the meaning that the variable job satisfaction can mediate leadership on employee performance. By proving this value, the hypothesis that “Leadership influences employee performance at the Jakarta National Disaster Management Agency through job satisfaction” is tested and proven.

**The indirect effect of the work environment on employee performance through job satisfaction**

The indirect effect of the work environment on employee performance that can be arranged are: \((0.715) (0.621) = 0.444\)

From the direct and indirect effects described can be explained that the magnitude of the direct influence of the work environment on employee performance is equal to 0.342, while the magnitude of the indirect effect of the work environment on employee performance through job satisfaction is 0.444. From the explanation above it can be concluded that the value of the direct influence is smaller than the value of the indirect effect which gives the meaning that the variable job satisfaction can mediate the work environment on employee performance. By proving this value, the hypothesis which states that “Work environment influences employee performance at the Jakarta National Disaster Management Agency through job satisfaction” is tested and proven.

To see the direct and indirect effects of the compiled equation can be seen in the picture below.
Conclusions and Suggestions

Conclusion

Departing from the results of the analysis and discussion it can be concluded that partially each of the independent variables of leadership and work environment through job satisfaction influences employee performance at the National Disaster Management Agency Jakarta. Then the results of the analysis of job satisfaction variables as intervening variables can be proved perfectly, namely, the job satisfaction variable gives an indirect influence on leadership variables on employee performance and work environment variables on employee performance. This statement can be proven by the amount of indirect influence (leadership on employee performance and work environment on employee performance) through job satisfaction identified as an intervening variable.

Suggestion

As input from the author refers to the analysis and discussion that has been done in the previous chapter, the authors submit recommendations in the form of suggestions. Where the description of the author's advice can be described as follows.

1. The role of leadership is a major factor in supporting the success of employees in carrying out the work given. Given the important role of leadership, management must be able to apply effective leadership models in supporting organizational success through the achievement of employee work. In this study conceptual skills (conceptual skills) and technical skills (technical skills) are already in the good category, but that can be an input that the indicators of human skills (human skills) are still not fully owned by the leader. Therefore, the implementation that can be delivered is that the leader can take the time to direct and explain to employees about how the procedures for each job will be carried out, then the leader can give a warning to subordinates for negligence and errors in work, and the leader can involve employees in decision making. If some of these components can be implemented it is expected that job satisfaction of each employee can increase and ultimately the performance of each employee can be achieved to the maximum.

2. On the other hand in increasing job satisfaction and ultimately the performance of each employee, work environment factors also dominate positively these two variables. The results showed that the provision of physical facilities was in the very good category, but the company had not optimally provided facilities in a non-physical work environment, meaning that the research respondents had not felt the confidence in working, related to safety in work or career achievements in the future. If this condition can be created by the company, it is hoped that employees will feel satisfied at work and ultimately the targeted performance can be achieved to the maximum.

3. Employee job satisfaction in organizations is generally already in the good category, but the indicators of work conditions must still be considered. This can be seen from the high workload given to each employee. If this condition is not considered well by the leadership there will be a decrease in the performance of individual employees.

4. The author is very aware that in the preparation of this thesis is still far from perfection for it is expected for further research who wish to raise the same variable more attention to the determination of research indicators where the determination of indicators can be adjusted to the place and object of the research determined. Then, on the other hand, the weaknesses of this study can be seen from the use of the number of samples used. Where the limited number of respondents in this study can have an impact on the accuracy and validation of the data collected and analyzed.

References