

Relationship Between Organizational Ergonomics and Work Motivation in The Ministry of Religion Binjai

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ABSTRACT

The work system applied to government agencies is influenced by several ergonomic aspects involved in the process. This includes interactions between workers and the work type, tools used, internal and external environmental conditions, and related organizations. The lack of application of organizational ergonomics to employees causes low work motivation among employees. This study aimed to determine the relationship between organizational ergonomics and the work motivation of employees at the Ministry of Religion Binjai. This study was quantitative with a cross-sectional approach. The population was all employees at the Office of the Ministry of Religion Binjai, totaling 62 people. The sampling technique was total sampling. Data was collected using a questionnaire and analyzed using the product-moment correlation test. The results showed that there was a relationship between vertical communication, and work motivation ($p=0.020$), there was a relationship between horizontal communication and work motivation ($p=0.000$), there was a relationship between training and work motivation ($p=0.000$), there was a relationship between teamwork and work motivation ($p=0.000$). The variable most related to the very strong category was teamwork, with a correlation coefficient (r) of 0.901. Employees should be more open and instill a sense of trust among employees towards the work being done, especially by establishing good communication so that good teamwork can be created to increase employee motivation.

Keyword: Organizational Ergonomics, Work Motivation, Minister of Religion

ABSTRAK

Sistem kerja yang diterapkan pada instansi pemerintah dipengaruhi oleh beberapa aspek ergonomis yang terlibat dalam prosesnya. Hal ini mencakup interaksi antara pekerja dan jenis pekerjaan, alat yang digunakan, kondisi lingkungan internal dan eksternal, serta organisasi terkait. Kurangnya penerapan ergonomi organisasi pada pegawai menyebabkan rendahnya motivasi kerja pada pegawai. Penelitian ini bertujuan untuk mengetahui hubungan ergonomi organisasi dengan motivasi kerja pegawai Kementerian Agama Binjai. Penelitian ini bersifat kuantitatif dengan pendekatan cross-sectional. Populasinya adalah seluruh pegawai pada Kantor Kementerian Agama Binjai yang berjumlah 62 orang. Teknik pengambilan sampel adalah total sampling. Data dikumpulkan dengan menggunakan kuesioner dan dianalisis menggunakan uji korelasi product moment. Hasil penelitian menunjukkan terdapat hubungan antara komunikasi vertikal dengan motivasi kerja ($p=0.020$), terdapat hubungan antara komunikasi horizontal dengan motivasi kerja ($p=0.000$), terdapat hubungan antara pelatihan dengan motivasi kerja ($p=0.000$), terdapat hubungan antara kerjasama tim dengan motivasi kerja ($p=0,000$). Variabel yang paling berhubungan dengan kategori sangat kuat adalah kerjasama tim dengan koefisien korelasi (r) sebesar 0,901. Pegawai hendaknya lebih terbuka dan menanamkan rasa percaya antar pegawai terhadap pekerjaan yang dilakukan, terutama dengan menjalin komunikasi yang baik sehingga dapat tercipta kerjasama tim yang baik sehingga meningkatkan motivasi pegawai.

Kata Kunci: Ergonomi Organisasi, Motivasi Kerja, Kementerian Agama

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Introduction:

The work system applied to government agencies is influenced by several ergonomic aspects involved in the process, including interactions between workers and the type of work, tools used, internal and external environmental conditions, and related organizations (Ramos-García et al., 2022). Based on the interactions carried out, there will be a feeling of dissatisfaction with the work system implemented. In addition to physical and cognitive ergonomics problems, organizational ergonomics problems are also often found, especially in formal sector workers (Kalakoski et al., 2020). This occupational safety and health effort does not only apply to industrial sectors such as manufacturing, mining, and construction but also applies to the office sector (Situngkir et al., 2021).

Organizational ergonomics is a branch of ergonomics that deals with system optimization because it is known as system ergonomics. Related to the optimization of sociotechnical systems, organizational ergonomics includes organizational structure, policies, and processes. In detail, the goals and roles of organizational ergonomics are to provide a fully harmonious work system that guarantees job satisfaction and employee commitment, overcomes both physical and mental workload, improves the quality and total productivity of the work system, provides a safe and healthy environment, and increases organizational effectiveness (Hartono, 2018).

Organizational ergonomics is important and is used as the center of attention in the work environment because an organization is a place for employees carry out their duties and work based on the responsibilities and tasks assigned by the leadership in an organization. The success of an organization or institution in achieving its goals is inseparable from the human resources it has because human resources will organize and manage other resources owned by the organization to help realize the goals of the organization itself. So that organizations and institutions must have competent human resources and a high level of performance in carrying out the tasks assigned by the organization (Siagian, 2020).

To realize good organizational ergonomics, communication is the most important key, where communication is a process of transferring understanding in the form of ideas or information from one person to another. Poor communication will hinder the work process carried out between employees because communication is a tool used to achieve the goals of an organization (Rosen et al., 2018). Company efforts to develop the quality of human resources and improve employee performance are usually by providing motivation and enthusiasm for employee work, increasing discipline in work, and improving the quality of work communication (Sinambela et al., 2019). The role of teamwork is to make it easier for managers or employees to make decisions about what to do to achieve company goals. Teamwork will be a form of organization, suitable work to improve company performance (Siregar et al., 2020).

Johnsen et al. (2017) stated that organizational ergonomics are unsatisfactory in as much as organizational ergonomics cannot be handled properly, in organizational ergonomics it is found that exploration, work procedures, and information are inadequate for workers, as well as the design of work procedures which are also inadequate. In addition, Safitri et al. (2019) stated that there are 30% of employees come late to the office. The study by Nelson (2021) stated that teamwork has a significant effect on employee motivation; also, training affects employee motivation. Leaders in the organization need to increase the training that has been implemented before so that employee motivation increases (Lestari & Hadiyanti, 2019).

In the initial survey conducted by researchers on 30 employees, researchers found a problem with employee motivation. In the organizational ergonomics variable, researchers found problems in several variables, namely communication, teamwork, and human resource management, which lead to employee development. Based on the description above, one way that can be done to increase employee motivation at the Office of the Ministry of Religion Binjai is by implementing good organizational ergonomics. Therefore, the study aims to analyze the relationship between

organizational ergonomics and the work motivation of employees at the Office of the Ministry of Religion Binjai.

Methods:

The study was quantitative with a cross-sectional design approach. The population was 62 people, which is the total number of workers at the Office of the Ministry of Religion Binjai. The sample was 62 people using total sampling. Data were collected using a modified questionnaire and was adopted by researchers related to organizational ergonomics, namely the communication variable was adopted from Suharto (2012), the human resource management variable was adopted from Siddik (2015), the teamwork variable was adopted from Wardianti (2017), and work motivation variable adopted from Suharto (2012). The questionnaire consists of vertical and horizontal communication has a 12-item; training and teamwork has an 8-item and; work motivation has a 10-item. All questionnaires have a correlation coefficient (r) calculated from 0.335 to 0.637 while the correlation coefficient (r) value of the table is 0.250, where $r_{count} > r_{table}$ which means that all questionnaires are valid. Vertical communication, horizontal communication, teamwork training, and work motivation have a reliability value of 0.660; 0.667; 0.679; 0.646; and 0.668. All questionnaires were answered using a Likert scale, namely: Strongly Agree (5); Agree (4); Disagree (3); Disagree (2); and Strongly Disagree (1). Vertical and horizontal communication has 5 categories, including very good if the score is 52-60; good if the score is 42-51; good enough if the score is 32-41; it's not good if the score is 22-31; and it's not very good if the score is 12-21. Training has a category: very strong if the score is 33-40, strong if the score is 27-32; medium if the score is 21-26; weak if the score is 15-20; and very weak if the score is 8-14. Teamwork has a category: very good if the score is 33-40; good if the score is 27-32; good enough if the score is 21-26; it's not good if the score is 15-20; and it's not very good if the score is 8-14. Work motivation has a category: very high if the score is 43-50; high if the score is 35-42; enough if the score is 27-34; low if the score is 19-26; and very low if

the score is 10-18. Data were analyzed using Product Moment Correlation because the scale used is interval, normally distributed, and the sample is larger than 30.

This study has received approval from the Universitas Prima Indonesia research ethics (Komisi Etik Penelitian Kesehatan) commission with the ethical approval letter number 048/KEPK/UNPRI/IV/2023.

Results:

Table 1 Respondent Characteristics based on gender and education

Variable	Σ	%
Gender		
Male	28	45.2
Female	34	54.8
Education		
Bachelor	39	62.9
Master	21	33.9
Doctoral	2	3.2

Table 1 shows that of the 62 respondents, 54.8% were female and 62.9% had a bachelor's degree.

Table 2 Respondent Distribution of Categories Based on Organizational Ergonomics and Work Motivation

Variable	Σ	%
Organizational Ergonomics		
Vertical communication		
Very Not Good	3	4.8
Not good	52	83.9
Pretty good	7	11.3
Horizontal communication		
Very Not Good	2	3.2
Not good	54	87
Pretty good	6	9.8
Training		
Very weak	2	3.2
Weak	44	71
Moderate	16	25.8
Teamwork		
Very Not Good	3	4.8
Not good	39	63
Pretty good	20	32.2
Work Motivation		
Very low	4	6.4
Low	45	72.6
Sufficient	13	21

Table 2 shows that neither vertical nor horizontal communication was not good 83.9% and 87%. Weak training was 71%, 63% did not have good teamwork and 72.6% had a low work motivation.

Table 3 Pearson Correlation test

Variable	Correlation coefficient (r)	p-value
Vertical communication	-0.295	0.020
Horizontal communication	0.522	0.000
Training	0.466	0.000
Teamwork	0.901	0.000

Table 3 shows that the p-value for the vertical and horizontal communication, training, and teamwork variables is less than 0.05. So it can be stated that there was a statistically significant relationship between organizational ergonomics and employee work motivation.

Discussion:

The application of vertical communication to employees at the Office of the Ministry of Religion Binjai was not very good to as many as 3 respondents (4.8%), not good to as many as 52 respondents (83.9%), and quite good to as many as 7 respondents (11.3%). Based on the significance of the relationship between vertical communication organization ergonomics and employee motivation, the correlation coefficient value is -0.295, with a significance value of 0.020. This shows that there is a negative relationship between vertical communication organizational ergonomics and employee motivation with a weak relationship level and a significant correlation because $p < 0.05$ ($0.020 < 0.05$). In line with a study by Kahani and Lestari (2019) stated that communication in the low category is equal to 60% and categorized as interpersonal communication leadership is not yet effective. As well as the level of employee motivation of 70% and can be categorized as very low.

Vertical communication as a control function acts as a controller for members of the organization, which is carried out by superiors who are at the managerial level to control the

organization so that it is more directed. Meanwhile, the function of motivation in vertical communication plays a role in motivating members of the organization run by superiors to encourage subordinates to improve their performance (Haryati, 2019). The value of the correlation coefficient shows a negative relationship, which means that the higher the level of vertical communication in an organization or team, the employee's work motivation tends to decrease. This means that when there is more communication that occurs vertically, such as messages and directions given from superiors to subordinates, employees tend to experience a decrease in motivation in carrying out their duties. There is ambiguity or dissatisfaction in vertical communication, which hurts work motivation. Ineffective communication, lack of feedback, and unclear instructions from superiors can cause confusion or frustration among employees. At the same time, Nurhadi and Anggraeni (2019) stated that 27.3% is the relationship between leadership communication and employee motivation, emphasis on clear and consistent communication, message coverage, and timely.

The application of the ergonomics of the horizontal communication organization to employees at the Office of the Ministry of Religion Binjai, namely 2 respondents (3.2%) was not very good, 54 respondents (87%) were not good, and 6 respondents (9.8%) were quite good. The results showed that there was a significant relationship between horizontal communication and employee motivation, namely a correlation coefficient (r) of 0.522 with a significance of 0.000, meaning that there was a positive relationship between horizontal communication and work motivation for employees with a moderate level of relationship, said to be significant because $p < 0.05$ ($0.000 < 0.05$). Equal, a study by Samad et al. (2020) stated that there is a significant positive effect of communication on employee motivation at PT. Karya Lintas Mandiri. Horizontal communication is communication among members of the workgroup. Communication occurs between and between departments at the same organizational level. This form of communication is

coordinative and is the result of the concept of facilitating coordination and problem-solving. This communication, besides helping coordination, can also be used to avoid slow problem-solving.

The application of organizational ergonomics training to employees at the Office of the Ministry of Religion Binjai is very weak, with as many as 2 employees (3.2%), weak as many as 44 employees (71%), and moderate as many as 16 employees (25.8%). The results showed that there was a significant relationship between training organization ergonomics and employee motivation, namely a correlation coefficient value of 0.466 with a significance value of 0.000, meaning that there was a positive relationship between training organization ergonomics and work motivation with a moderate level of relationship and the correlation was stated to be significant because $p < 0.05$ ($0.000 < 0.05$). The same study by Lestari and Hadiyanti (2019) stated that training affects employee motivation at PT. Harmoni Mitra Utama Cabang Samarinda.

Leaders in the organization need to increase the training that has been implemented before so that employee motivation increases. Workforce development is a condition indicating improvements in the quality of the workforce to reduce the dependence of the organization on attracting new employees. Workforce development can be done by holding regular education and training, promotions, and transfers. Education and training are carried out so that the workforce can always keep abreast of developments in science and technology (Tsauri, 2013).

The ergonomics of the teamwork organization for employees at the Office of the Ministry of Religion Binjai were 3 employees (4.8%) very bad, 39 employees (63%) not good, and 20 employees (32.2%) quite good. The results showed that there was a significant relationship between teamwork organization ergonomics and employee motivation, namely the correlation coefficient (r) of 0.901 with a significance of 0.000. This means that there is a positive relationship between teamwork organizational ergonomics and work motivation with a very strong level of relationship, and the

correlation is stated to be significant because $p < 0.05$ ($0.000 < 0.05$), in line with a study by Nelson (2021) stated that teamwork has a significant effect on employee motivation.

Imron and Suhardi (2019) defined teamwork as small-scale groups working on clear, challenging tasks that are most efficiently completed by groups working together when compared to individuals working alone. Individuals are said to work together if the efforts of each individual are systematically integrated to achieve common goals. The greater the integration, the greater the level of cooperation (Ibrahim et al., 2021).

The limitation of this research is the limited sample. Research limitations are due to the small population size, and the research was conducted in only one location. Then the research was carried out within a limited time. This limits researchers' ability to observe changes in employee behavior over a long period of time.

Conclusions:

The study concludes that organizational ergonomics including vertical communication, horizontal communication, training, and teamwork are related to employee motivation.

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