CHARACTERISTICS OF WORK STRESS AND EFFECT THE PERFORMANCE OF EMPLOYEES (Empirical Studies in Kampong Batik Laweyan Surakarta)

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Abstract

This study aimed to: (1) identify the characteristic of work-stress in Kampong Batik Laweyan Surakarta, (2) analyze the cause and effect of the characteristic of work-stress toward job performance in Kampong Batik Laweyan Surakarta. The location of research is in Kampong Batik Laweyan. The objects of this study are work-stress as the independent variable and employee performance as the dependent variable. This research is descriptive research and verification. The total populations in this study were 121 employees, of which based on sampling technique applied, as many as 100 employees were taken. The data were collected with interviews, open questionnaires, and documentation. The data were analyzed repeatedly through regression analysis. The findings show that all characters of work-stress have negative effect toward job performance. The variables are (1) environment-stress, (2) organization-stress and (3) individual-stress.

Keyword: Environment-stress, organization-stress and individual-stress

1. Introduction

Humans as a critical resource in the organization should require good management and well planning. Indeed, human resources is the only human who has the intellect, feelings, desires, abilities, skills, knowledge, encouragement, power, work, reason, sense, and intention everywhere. Humans' potential also influences the company's efforts in achieving its goals.

In order to carry out any business enterprise, one will not be separated from various problems related to the functions of its business activities, whether it is a problem of production, finance, human resources, marketing and business. The above problems cannot be separated from one another; they must be addressed comprehensively by coordinating between functions in one unit. Problems related to the function of human resources are one important thing in the company. Ultimately, one of the problems in the organization is working stress.

Job stress according to Gibson, Ivancevich, and Donnelly (2005) is “As a response to adjustments mediated by individual differences and or psychological process which is a consequence of any action from the outside (environment) working, situation or event that sets the request psychological and or excessive physical to someone.” US researchers report that the loss caused by workers’ stress reached between $100 billion and $300 billion annually to the US economy in the form of working days lost and cost of health care for pain-related problems such as fatigue, depression and heart attack.
Several epidemiological studies have shown that stress is particularly damaging during the ongoing recession. Harvey Brener from John Hopkins University estimates that for every increase of one percent in the unemployment rate, there is an increase of five percent in the number of mental hospital patients, six percent in the number of prisoners and, eight percent in the number of patients with fatal heart attacks (Gibson, Ivancevich and Donelly 2005).

Results study conducted by C. Weiman (2007) examined the correlation between excess load, less workload, and stress among 1,540 executives in a large company in the USA. The executives who are at low and high row of the range reported that stress has an obvious health effects. This study suggests that the relationship between stressors, stress, and illness may have linear curve. Those who have less workload and those who have excessive work burden represent two ends of a continuum, each with a number of health problems that are significantly higher. Optimal stress level gives the best balance of challenge and reward responsibility.

One of the problems in the study of organizational stressors is to identify stressors are most important factor. A major part of the work within the organization for some individuals is participation in decision making. Participation refers to the breadth of knowledge, opinions and ideas a person included in the decision making process. Such participation can contribute to the onset of stress.

Some people may be frustrated by the delays that are often combined with participatory decision-making. Others might view the distributed (divided) decision making as a threat to the traditional rights of a supervisor or manager to take the final decision. Research conducted by Ismar, Amri and Sostrosuniharjo (2011), which examined 73 workers of a company's call center in Jakarta found a prevalence of work stress related to factors work stressors including career development, workload excessive, conflict role, compulsion roles and responsibilities of the job.

One study of salesman in the field of trade test as a result of the organizational structure is long (bureaucratic structure), medium and short/flat (less rigid structure) to work satisfaction, stress and appearance. The researchers found that salespeople in the organization whose structure is at least a small bureaucratic have greater stress and job satisfaction; and it proved that the role of salesman to be more effective in an organization with medium and long structure (Ivanchevich and Donelly, 2005). Besides the cause of work stress, the effect of stress varies, some of which are positive and negative. However, the negative effects have more potential of being harmful. The consequences of these include physical fatigue, feelings of upset-angry (burnout), and depression even at work. The level of excessive work stress can have a negative impact on work performance of employees, which will ultimately damage the company. The negative impact may be low levels of productivity, lack of creativity, lack of motivation, ineffective decision-making, low quality of communication between employees, a high rate of absenteeism, and even the emergence of violence acts at work environment (Quick et al., 2002).

A study from Alberto (1995) revealed that job stress has negative influence on job satisfaction audit staff. The same research also found by Praptini (2000) which shows that stress affect negatively on job satisfaction felt by lecturers working at Airlangga University. Likewise, Saina Nur (2013) concluded that there is negative effect of work stress on employee performance, meaning that the higher the level of job stress, it will eventually give a negative impact in improving the employees performance.

The research results from several studies explain that the impact of job stress have positive effect for career advancement of employees, employment spirit, and job responsibilities. Research conducted by Setiawan (2009), which examined the impact of stress on the Internal Auditor at PT BNI Tbk. found that work stressors such as overloaded qualitative work, career advancement, scope of work, responsibility to others, and the time pressure has positive influence on job stress. Meanwhile, the research results found by Anni Muthiah (2012) showed that work stress has significant negative impact on job satisfaction.

From the above explanations, job stress can lead to positive or negative impact; therefore one should not eliminate all forms of work stress; rather, to limit the negative impact of the job stress. The attempts to not eliminate work stress are done through the management of work stress (Greenberg,
1993). Work stress management is a technique to control and reduce stress. Stress management work is a person's ability to make changes from negatively impacting stress into a positive impact on job stress for the employee and will eventually display optimal results (Quick et al, 1997).

The increasing batik industries, mainly for overseas markets, skyrocket after the recognition by the UNESCO. Based on the information from certificate of origin (SKA), which was just released by the Department of Industry and Trade (Industry and Trade), showed that batik exports in August 2011 valued at US$2,287,668.04 with total volume of 93559.29 kgs; whereas, the previous month, it was only worth US$758,902.73 with total volume of 33904.04 kgs (Kompas 21 September 2011). According to the Coordinating Minister for People's Welfare, there are more than 80,000 batik entrepreneurs in Indonesia. Thus, it is necessary to improve the public’s awareness to preserve and protect Indonesian batik and to improve competitiveness (Suara Karya, 21 September 2011).

One famous batik industry in Surakarta is Kampong Batik Laweyan. Laweyan Society from the Age of Pajang Kingdom until today is a famous batik-producing area. Although in its development it experienced ups and downs in its business, but people still work in the field of batik. Since the introduction of Laweyan as batik tourist village under the Decision Letter (Surat Keputusan) by Mayor of Surakarta No. 534.05/136-B/1/2004, the development of batik industry in kampong Laweyan has rapid progress. It can be seen from the number of tourists visiting to buy batik and to learn and enjoy the heritage of historic buildings (Setiawati and Nursiam, 2013). It indirectly had an impact on the industry batik of Laweyan, as characterized by the increasing turnover. However, behind the increasing number of sales, there are various problems in management of traditional batik. The problems include handling human resources issues that often occur at the entry and exit of workers/employees batik and lack of young workers replacement of Laweyan batik industry in the vicinity.. In general, batik power is derived from the surrounding villages surrounding suburban Surakarta (Setiawati and Nursiam, 2013).

Thus, considering these pressing conditions, it is necessary to stress research labor of batik industry in order to identify the characteristics of the labor job stress, causes, consequences, and management models of job stress as an effort to improve human resource performance in the batik industry of Kampong Batik Laweyan Surakarta. The objectives of this research are to (1) identify the characteristics of job stress and the influence on employees’ performance in Kampong Batik Laweyan Surakarta, Central Java; (2) identify the cause of job stress that occurs in Kampong Batik Laweyan Surakarta, Central Java; and (3) identifying the result of work stress in Kampong Batik Laweyan Surakarta, Central Java.

### 2. Job Stress in the workplace Organization

Gibson and Ivancevich (2005) suggested that job stress is conceptualized from some views, namely stress as a stimulus, stress response, and stress as a stimulus-response. Stress as a stimulus is an approach that focuses on the environment. The definition of stimulus looked at stress as a force to suppress the individual to respond to stressors. This approach views stress as a consequence of the interaction between the stimuli to the individual response.

The approach of stimulus-respond defines stress as a consequence of the interaction between environmental stimuli with individual responses. Stress is seen not just a stimulus or response, but the stress is the result of a unique interaction between environmental stimulus conditions and the tendency of individuals to provide feedback. Leatz and Stolar, (2000) stated that the stress experienced by the individual in long term with high intensity will drive the individual to suffer from fatigue, either physical or ethical. Such a situation is called burnout, namely physical fatigue, mental and emotional that occurs caused by stress suffered in a long period of time, in a situation that demands high emotional involvement.

Selye (2006) conceptualized psycho- and physiological responses to stress. He considered the stress as a nonspecific response to any demands made on the organism and the defense is called three-phase reaction, which one do when stress hits as “Syndrome General Adjustment” (The General Adaptation...
Syndrome/GAS). Selye (2006) mentioned the reaction as common defense because stress affects various parts of the body, the response refers to a stimulation of the defense that was created to help the body adapt to or confront the causes of stress and the syndrome indicates that part of the reaction, ranging from individual to occur more or less simultaneously. The three phases include signal (alarm), resistance, and fatigue (exhaustion). The phases signal is beginning mobilization with which the agency to meet the challenge posed by stress. When stress is found, the brain sends a message to all systems of the body's biochemistry. Such as increasing respiration, rising blood pressure, dilated pupils, rising muscle tension, and so on. If the stress continues to be active, GAS switches to the stage of resistance.

The signs of entering to resistance phase include fatigue, fear, and tension. Personal experience of this stage is now against the causes of stress. While resistance to a particular stressor may be higher during this phase, the resistance to a cause other than stress may be lower; a person only has a limited source of energy, concentration, and ability to withstand the causes of stress. Individuals often get sick more easily during periods of stress than any other time. The last stage of GAS is exhaustion. The cause of same stress in long term and continuously may eventually raise energy use adjustments that can be used, and the system of attacking the causes of stress becomes exhausted.

The causes of workplace stress can also come from the group. The effectiveness of any organization is influenced by the nature of the relationship between the groups. Characteristics of groups can be a powerful stressor for some individuals. Organizational behavior experts have assumed that by improving good relationships among members of a working group is a major factor in developing good individual’s life. In other words, by fostering good relationships among members of the working group led to avoiding stress of the working group.

Instead, bad relationships among members of a working group is the cause of job stress. It is conceivable that in an office or agency workers concerned with each individual's own behavior, ego, then such conditions might cause stress on individual work, especially employees who feel defeated. Studies in this area have reached the same conclusion; distrust of trade partners is positively related to high role ambiguity, which carries on the communication gap between people and consequently resulting on low job satisfaction.

### 3. Accomplished studies

Research conducted by Luce and Juravich (2002) regarding stress on call center at the University of Massachusetts found that between 1-10 scale, about 32% of the respondents reported their stress levels reached 10.3%, which consequently, stress often times affects them physically and emotionally, and 24% claim that the stress arising from them make them restless. The risk factors that have the most significant contribution to the emergence of stress are customers demand, time pressure, regular monitoring, and pressure to deal with phone calls.

Another study on job stress is Setiawan’s (2009), which examined the impact of stress on the Internal Auditor at PT BNI Tbk. This study specifically identifies the stressors such as organization, employment, and social work as well as test relationship between various stressors with job stress. The model developed in this study stated that organizational stressors and social work have direct influence on igniting job stress. Other findings stated that job stressors (qualitative work overload, career advancement, scope of work, responsibility to others, and time pressure) has a positive influence on job stress.

Dhania (2010) tried to examine the effects of stress work such as workload on job satisfaction at Medical Representative in Kudus, Central Java. The study concluded that job stress has no effect on job satisfaction perceived in medical employee representatives. There are many things that can affect a person's job satisfaction. Based on the results obtained on the initial interview, one reason for the improvement of job satisfaction is to feel comfortable with the work undertaken despite the heavy burden, but they are expecting an incentive to add my opinion to the family's needs.

Jumaini and Hafsa(2013) examined the relationship of work stress with the performance of the Executive Nurse at Inpatient Hospital in Dumai City. The study stated that there is a correlation
between work stress and the performance of nurses, calculated by using Pearson correlation test. Based on the obtained results of tests performed, \( p = 0.000 \) and the correlation coefficient \( r = 0.682 \), indicating a strong relationship, the study is positive. Moderate stress experienced by majority of nurses (42.2%), and the rest of percentage (48.9%) suffered from adequate amount of stress. The conclusion of this study described that occupational stress is distress experienced by employees in the face of work, caused by stressors that come from the work environment such as environmental, organizational, and individual factors. Factors that influence job stress among other are physical demands, the demands of the job role, and interpersonal demands. Performance is a function of the ability of workers to accept employment objectives, level of interaction between the achievement of goals and objectives, and capabilities of workers. The factors affecting performance are knowledge, experience, and personality.

Andi Franata (2009) conducted a research at PT. Lasallefood Indonesia Part Production Department from February to June 2009; the site selection is based on intentional or purposive selection. The research is considered as explanatory research by using primary data from interviews and questionnaires distributed to employees at the Ministry of Production, totaling 67 respondents. The results of the acquired source of work stress regarding stressful conditions of employees were performance factors obtained at the Production Department, affecting high condition of the employee performance. From the analysis of the relationship between characteristics of employees with job stress and employee performance showed that work stress and performance factors have no relation to the characteristics of the employee. On the other hand, the results of the analysis of the relationship between work stress variables and performance factors (such as the authority to discipline) and work stress variables (such as technology) and performance factors (such as loyalty) have a very tenuous connection. However, generally speaking work stress variables with other performance factors do not have a significant correlation. After examining work stress suffered by the employees, the company conducted efforts to manage work stress as follows: a) providing enrichment or expansion work to employees, b) giving authority limits in accordance with the responsibilities of employees, c) providing clear job descriptions, d) giving awards to top employees, the incentive awards may be financial or non-financial. These efforts are expected to motivate employees to improve their performance without incurring negative stress. The efforts to further enhance the performance of the employees are by conducting management training, improving organizational communication, and increasing employee participation in decision-making.

Sania Nur (2013) examined the effects of conflict, job stress and job satisfaction to employee performance at Khairun University by using survey methods and type of associative study with descriptive techniques Verificative. The result of work conflicts, job stress and job satisfaction simultaneously show significant effect on the employees performance. Work stress partially has negative effect on the performance of employees, meaning that the higher the level of job stress possessed by the employer, the more it will give negative impact in improving the employees’ performance.

### 4. Method

This study is considered as quantitative research with probabilistic characteristic, namely the test variable work stress on performance in Kampong Batik Laweyan Surakarta. The researchers acquired the through questionnaires and documentation.

Population is “overall the research subject” (Suharsimi Arikunto, 2002: 108). The populations in this study were all employees in the batik industry of Kampong Laweyan Surakarta, Central Java. Samples are “partially or representative of the population under investigation” (Suharsimi Arikunto, 2002: 109). The sampling refers to the opinion of Suharsimi Arikunto that the researchers took samples of questionnaires returned by respondents with discretion; when the subject is less than 100, it is better to take all into account, which will be the population of study. Therefore, all employees in the batik industry of Kampong Laweyan Surakarta are the object of research respondents; and the batik industries are Batik Merak Manis, Batik Putra Laweyan, and Batik Mahkota Laweyan.
Furthermore, if the number of sample is more than 100 subjects, the researchers can taken between 10% to 15%, or 20% to 25% of the total sample.

5. Results and Discussion

This analysis is used to determine the influence of independent variables, namely the Environmental Work stress (X_1), Work-Organizational Stress (X_2) and Job Stress-Individual (X_3) on Employee Performance. The analysis is conducted by using SPSS 16.0 regression coefficients, and the obtained results from the data processing are:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
</tr>
<tr>
<td>X1</td>
<td>- 0.271</td>
</tr>
<tr>
<td>X2</td>
<td>- 0.238</td>
</tr>
<tr>
<td>X3</td>
<td>- 0.262</td>
</tr>
</tbody>
</table>

Source: processed primary data

From the table it can be made the regression equation as follows:

\[ Y = 33.242 - 0.271 X_1 - 0.238 X_2 - 0.262 X_3 \]

From the above equation, it can be interpreted as follows:

\( b_1 = - 0.271 \) as major regression constant value for the variable stress work environment is -0.271 with negative parameters. This means that the higher level of psychological stress, then the employee's performance in the batik industry in Surakarta Laweyan will be increasingly experiencing significant decrease. \( b_2 = - 0.238 \) as major regression constant value for the variable is the organizational work stress -0.238 with negative parameter. This means that the higher the level of physiological stress, then the performance of employees in the Kampong Batik Laweyan Surakarta will be increasing. \( b_3 = - 0.262 \) as large regression constant value for the variable is the individual work stress -0.262 with a negative parameter. This means that the higher the level of stress behavior, the performance of employees in the batik industry Laweyan Surakarta will also be increasing.

Coefficient of Determination

Based on the calculation of results, the researcher obtained regression determination coefficient \( R = 0.402 \) can called that 40.2% Environmental Work stress variable (X_1), Work-Organizational Stress (X_2) and Job Stress-Individual (X_3) influence the performance of employees in the batik industry Laweyan, while the remaining 59.8% is due to the influence of other variables that are not covered in this study.

T test

To find out how the environment influences the work stress variables (X_1), Work-Organizational Stress (X_2) and Job Stress-Individual (X_3), it will be discussed as follows:
Table 2 T-test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>33.242</td>
<td>1.870</td>
</tr>
<tr>
<td>X1</td>
<td>-, 271</td>
<td>.116</td>
</tr>
<tr>
<td>X2</td>
<td>-, 238</td>
<td>.107</td>
</tr>
<tr>
<td>X3</td>
<td>-, 262</td>
<td>.119</td>
</tr>
</tbody>
</table>

Source: Primary data processed

Based on the analysis of data from the above table, it shows that work stress Environment (X1), Work-Organizational Stress (X2) and Job Stress-Individual (X3) have negative effect on the performance of employees in the batik industry Laweyan Surakarta (coefficient numbers with significantly less than 0.05).

Discussion

The overall results of the analysis showed that job stress environment variables (X1) Work-Organizational Stress (X2), and Job Stress-Individual (X3) significantly affect the performance of employees in the batik industry Laweyan Surakarta (coefficient numbers with significantly less than 0.05).

The analysis of research on the variables is consistent with the research study conducted by Jumaini and Hafsah (2013), Muhammad bellows (2010) and Ida Ayu Widyaningrum, (2010) who found that the independent variable stress of work including stress work environment, Work Stress-Organizational, and Individual Work Stress-influence together have significant effect on employees performance. However, the result of study contradicts with Praptini’s study (2000), which showed that stress has no effect toward job satisfaction felt by lecturers at Airlangga University.

Based on the analysis of the research results separately, it was found that the variable psychological stress affect the performance of employees in the batik industry Laweyan Surakarta. The result of study was not consistent with prior research conducted by Siti Nurhendar (2007) who found that psychological stress does not affect the employee's performance. Likewise, the results of research correspond to previous research conducted by Sania Nur (2013). This is due to lack of clarity in terms of duties, powers, and responsibilities incumbent, stress and dissatisfaction will increase. Similarly, the less control people hold up their work rate, the higher the level of stress and dissatisfaction.

Work stress research results on environment variable, where stress work environment has negative effect on employee performance. This result is consistent with Dhania’s research (2010) who found the influence of stressful work environment on employee performance. This is due to the relatively same object of research, which Dhania conducted at Hospital Medical Representative, where employees tend to have a sense of comfort and safe working area at this hospital.

Physical environments induces stress are the existence of less comfortable and less favorable conditions of work space, also due to facilities given by the company on the implementation of inadequate work. From the observation, the researchers also found that there are differences between the values of company's employees in the company, pressure/time pressure in the companies, and the employees feel that the quality of bad supervision. From the observation of the effects of stress level, stress will decrease work productivity, absenteeism, and employee turnover, which means that many do not like to work, causing them to resign from the job.
Stress research results variable organizational work, where stress organizational work has negative influence on employee performance. This result is consistent to Jumaini and Hafsah’s research (2013), and Muhammad bellows (2010). However, these results are not in accordance with the research conducted by Ida Ayu Widyaningrum, (2010) who found that work stress free variable of organizational work has positive influence on employee performance. This variable causes of work stress because there is less clear structures at the company's organization, the authority of leader is not sufficient to carry out the responsibilities and they do not have regeneration on organization. Likewise, acquired from the observations, there is a tendency that the leader does not involve employees in the preparation of the company program. There is no container to deliver the aspirations of employees and excessive task demands.

Task demands are factors associated with a person's job. These demands include the design of individual work, working conditions, and the physical layout of work. For example, working in a room that is too crowded or in locations with constant noise disturbance can increase anxiety and stress (Evans, G. W, 2000). With the growing importance of customer service, a job that requires an emotional factor could be a source of stress. Demands role with regard to the pressure given to someone as a function of the specific role it plays in the organization. The role conflict created expectations that may be difficult to resolve or fulfilled. The impact of organizational work stress causes a decrease in the rate of labor productivity, absenteeism, and employee turnover, as well as changes in habits, for example for those who like to hangout together become more reluctant to gather with their friends.

The results of the analysis of individual job stress variables have negative effect on the performance of employees in the batik industry of Laweyan Surakarta. The research results of this study are not consistent with prior research conducted by Siti Nurhendar (2007) and Ida Ayu Widyaningrum, (2012) who found that physiological stress has positive influence on employee performance. The results are consistent with research conducted by Wulandari (2009) describing the effect of stress organizational on performance employees.

The main cause of stress is because the employees feel selfish role conflict at work, have excessive workload, and do not feel proper welfare for their families. There is a personal conflict between the company and a particular group; also, employees do not feel any motivation from within themselves that encourage them to work hard. The impact of individual stress, where stress can create a change in metabolism, increase heart rate and breathing, increased blood pressure, cause headaches, and trigger heart attack. These feelings drive the employees to become easily agitated and angry. This feeling is defined as a process of psychological stress caused by work continuously, resulting in emotional exhaustion, depersonalization, and decreasing feeling of achievement.

However, stress at work and in life can not be avoided. Some employees can not be mastered over a period of time due to job stress. Likewise, they become easily fatigued ("loyo", Javanese term) and they demonstrate the feeling like there is something burn out. The symptoms of burn out feeling can be experienced by every person or worker. Feeling agitated is defined as a process of psychological stress caused by work continuously, resulting in emotional exhaustion, depersonalization and feeling of achievement decreases.

### 6. Conclusions

The overall results of the analysis showed that psychological stress variable ($X_1$) physiological stress ($X_2$) and stress behaviors ($X_3$) has positive effect on employee performance in the batik industry Laweyan Surakarta (coefficient numbers with significantly less than 0.05). This study suggests that the object of study can be expanded by using other batik industries around Surakarta. This is because the characteristics of job stress is more varied and more complex and will produce research findings and the phenomenon is more useful for improving the performance of the company's employees.
References


