Individual Characteristics and Job Characteristics on Work Effectiveness in the State-Owned Company: the Moderating Effect of Emotional Intelligence

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PT. Jasa Marga is a company that specialises in the service business sector that's main business is managing roads and bridges. To carry out its duties and responsibilities, PT. Jasa Marga needs employees who play a large role in carrying out all activities of the company with a variety of individual characters and various existing work characteristics. The purpose of this study is to analyse the effect of individual and work characteristics on work effectiveness and which is moderated by emotional intelligence. Analysis tools using SPSS Version 22.00 with the analysis model Moderated Regression Analyze (MRA). The results showed that individual characteristics and job characteristics partially had a positive and significant effect on work effectiveness. Emotional intelligence acts as a moderating variable in testing the effect of individual and work characteristics on work effectiveness.

Key words: Individual characteristics, job characteristics, emotional intelligence, work effectiveness.

Introduction

Infrastructure is one indicator of regional progress, where infrastructure facilitates community mobility in one region. Infrastructure development in the North Sumatra region is being carried out on a massive scale considering North Sumatra Province has an uneven distribution of wealth in the economy. PT. Jasa Marga is a state-owned company engaged in managing toll roads to facilitate the community in their mobility using the highway.
PT. Jasa Marga is a company that specialises in the service business sector that has the main business that is managing roads and bridges to the maximum for the smooth and orderly roads whose meetings are arranged in an annual work program. To carry out its duties and responsibilities, PT. Jasa Marga needs employees who play a large role in carrying out all activities of the company with a variety of individual characters and various existing work characters.

The results of the work carried out by PT. Jasa Marga is highly demanded because of its effectiveness to produce maximum performance according to work targets. The maximum use of employees needs to be done in increasing the effectiveness of work. The effectiveness of organisational work cannot be far from the role of the people in the organisation, how organisations manage existing resources and set goals and objectives to achieve desired success. Work effectiveness is the extent to which an organisation can achieve goals and objectives through a predetermined target.

Factors that influence the effectiveness of work are individual or employee characteristics. Individual characteristics are characteristics inherent in each individual. Differences in individual characters lead to differences in the way one views how to contribute to the company. Someone will contribute more to the progress of the company even though it does not get a real award, but not necessarily others feel the same way thus meaning different characteristics are different from one another. Where the placement of employees deemed inappropriate according to the position of work performed. The work carried out by PT. Jasa Marga has its work characteristics, such as the implementation of 24-hour work time, which is divided into three work shifts. Where in each shift, especially the night shift, many employees object to doing it. Given the age, gender, and physical condition of employees, not all employees can do work on the night shift.

Besides, the effectiveness of individual work from the level of employee absence shows the ineffectiveness of employees. Where the recapitulation results are absent as follows:

**Table 1: Effectiveness of Employee Absence 2015 - 2017**

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Number of Employees</th>
<th>Active Working Day</th>
<th>Late</th>
<th>Permission</th>
<th>Absent</th>
<th>Sick</th>
<th>Paid Leave</th>
<th>Dispensation</th>
<th>Maternity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2015</td>
<td>166</td>
<td>312</td>
<td>87.32%</td>
<td>0.82%</td>
<td>0.05%</td>
<td>3.32%</td>
<td>5.72%</td>
<td>6.52%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2</td>
<td>2016</td>
<td>175</td>
<td>312</td>
<td>97.09%</td>
<td>1.04%</td>
<td>0.02%</td>
<td>4.90%</td>
<td>4.97%</td>
<td>5.46%</td>
<td>0.00%</td>
</tr>
<tr>
<td>3</td>
<td>2017</td>
<td>189</td>
<td>312</td>
<td>86.50%</td>
<td>0.67%</td>
<td>0.02%</td>
<td>3.96%</td>
<td>2.65%</td>
<td>3.67%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

**Source:** PT. Jasa Marga (2018)
The high level of employee delays shown in the table above shows the ineffectiveness of work. The level of employee delay is considered too high. The ineffectiveness of work like this is caused by the characteristics of employees who are not responsible for their work, which in turn affects the ineffectiveness of organisational functions. The level of delay becomes polemic for the company in determining the actions that must be taken in developing employees. The difference in individual characteristics, as described, begins from the difference in the way a person looks at the company where they belong. Someone will contribute significantly to the company when that person is aware of the importance of discipline in work and persevering in doing his work.

While other factors that affect work effectiveness are job characteristics, job characteristics are the identification of various work attributes that can encourage individual effectiveness at work. The effectiveness of one's work can be realised when the characteristics of work can meet their needs. Employees need jobs that require some skills so that they trigger employees to create new ideas and thoughts. Based on the pre-survey, the researchers found several problems that indicate that employees have not fully felt the work they entailed following their abilities. For example, some employees have many workloads, so that they are exhausted. The work that is done requires a high degree of accuracy, so even a slight mistake can result in the repetition of work.

Work that is done repeatedly that is not accompanied by bodily activities and results in drowsiness, fatigue, and decreased responsiveness is responsibly categorised as monotonous work (Thackeray, 2010). The characteristics of the work done by employees tend to be monotonous, and even there is almost no variation, so that in the end, the work performed is less challenging and does not stimulate employees to explore their creativity. Monotonous work behaviour will reduce the level of responsibility of employees in their jobs and occupations that are occupied.

Both individual and work characteristics will be better if accompanied by emotional intelligence. The better a person's emotional intelligence will further enhance his character and the way he faces the work he does.

Someone who is emotionally intelligent will be more mature in managing themselves and face their work. Unfortunately, a man's maturity cannot be measured by his age but rather by the experience he has and the environment that builds it. Success in work does require not only cognitive abilities but also requires excellent emotional abilities (Goleman, 2015). Employee intelligence will affect personal performance; if the performance target is achieved, it means that the work done by the employee runs effectively. Achievement of individual performance derived from intellectual intelligence by 20%, and the remaining 80% comes from emotional intelligence (Goleman, 2015).
Employees who can control their emotions will have excellent performance. Emotional intelligence is a factor that is as important as technical and analytical skills to produce optimal performance (Allen & Meyer, 2013). However, in reality, in some organisations, emotional intelligence often does not get enough attention as a determinant of employee work effectiveness. Good emotional intelligence will have a positive impact on individuals where someone with an adult age will be wiser in making decisions that will ultimately have a positive effect on their work. Likewise, the positive impact shown by the characteristics of a difficult job if done by someone who has high emotional intelligence will also increase work effectiveness, because the rational nature of the employee will encourage him to do positive things for the company.

However, the results of data presented by the company based on employee absenteeism indicate that the emotional intelligence of employees is low. It is based on a very high level of employee delay. This problem arises from many reasons, such as employees having a lazy attitude to work, being unable to control the factors that cause stress and conflict in the workplace. Contrary to the impact of employees who have high emotional intelligence shown by understanding themselves and others, ultimately, employees will have an attitude capable of motivating themselves to work, able to control emotions and be able to minimise conflicts in the workplace.

Based on the background of the problem presented, it can be drawn as follows:

1. Do individual characteristics have a positive and significant effect on employee work effectiveness?
2. Do job characteristics have a positive and significant effect on employee work effectiveness?
3. Does emotional intelligence moderate the effect of individual characteristics on employee work effectiveness?
4. Does emotional intelligence moderate the effect of job characteristics on employee work effectiveness?

**Literature Review**

**Work Effectiveness**

Effectiveness is the power of messages to influence or the level of ability of messages to influence. So, it can be interpreted if the effectiveness as measurement will achieve the objectives that have been planned carefully. Etymologically, the word valid is often interpreted as producing the desired result, having a pleasing effect, being actual and real
Some factors that affect work effectiveness (Steers, 2015), are as follows:

1. Organisational Characteristics are relationships that are relatively fixed as the composition of human resources contained in the organisation.
2. Environmental Characteristics. The external environment is the environment that is outside the organisational boundaries and is very influential in the organisation, especially in decision making and action-taking. The internal environment, known as the organisational climate, is the overall environment in the organisation.
3. Worker Characteristics are the most influential factor in effectiveness. Within each individual will be found many differences, but individual awareness of these differences is essential in efforts to achieve organisational goals.
4. Management Characteristics are work strategies and mechanisms designed to condition everything in the organisation so that effectiveness is achieved.

**Individual Characteristics**

Individual characteristics are characteristics that can describe an individual or character possessed by someone who can be predicted through demographic data and performance behaviour during his life. The demographic data includes background, age, ancestry, and nationality. A person's behaviour determines how the individual produces something, does work, gets positive long-term performance or achievements and self-growth, or vice versa. Individual characteristics are things that include several basic properties inherent in a particular individual. Individual characteristics include traits in the form of family background, experience, age, nation, and others that reflect specific demographic characteristics, as well as psychological characteristics consisting of attitudes, personality, learning, and motivation (Winardi, 2012).

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Factors that can affect individual characteristics can be divided into two types, such as (Robbins & Coulter, 2010):
1. Effect of Congenital and Environmental Factors
   a. Heredity Characteristics
   b. Characteristics Obtained from Environmental Influences
2. Effects of Cognitive, Affective, Psychomotor Factors
   a. Effect of Cognitive Factors
   b. Effect of Affective Factors
   c. Effects of Psychomotor Factors

**Job Characteristics**

Attitude is an evaluative statement both pleasant and unpleasant towards objects, individuals, and events (Robbins & Judge, 2013). Attitudes are feelings or actions shown by an individual towards others or an object. Each individual has a different attitude. Attitudes can affect intention to behave. While the intention to behave influences behaviour.

Job characteristics are the identification of various dimensions of work that simultaneously improve organisational efficiency and job satisfaction, which are attributes of tasks that have important unique characteristics. Attributes in job characteristics are the attitude of the internal aspects of the work itself from the variety of skills needed, procedures and clarity of the task, the level of importance of the task, authority, and responsibilities as well as feedback from the work that has been done (Mangkuprawira, 2011). Job characteristics are the basis for organisational productivity and employee job satisfaction, which play an essential role in the success and survival of the organisation. In conditions of increasing competition, well-designed jobs will be able to attract and retain a workforce and provide motivation to produce quality products and services (Simamora, 2011).

Five intrinsic characteristics of a job that show its relationship with job satisfaction for a variety of jobs (Mathis & Jackson, 2006). The five intrinsic features are as follows:

1. Variety Skill. The number of skills needed to do the job.
2. Task Identity. Identity of duties that enable employees to carry out the work thoroughly.
3. Task Significance. An important task that refers to how much impact the work has on others, as perceived by the community.
4. Autonomy, namely the characteristics of work that provide specific policies and controls for employees over decisions related to work, and this is fundamental to cause a sense of responsibility in employees.
5. Feedback refers to information that informs employees about how well work performance has been achieved during work.
Emotional Intelligence

Emotional intelligence is the ability of a person to regulate his emotional life with intelligence, maintaining emotional harmony and disclosure through self-awareness skills, self-control, self-motivation, empathy, and social skills (Goleman, 2015). It is not only one type of monolithic intelligence that is important for success in life, but there is a broad spectrum of intelligence with the aim of significant varieties such as linguistics, mathematics/logic, special, kinesthetic, music, interpersonal and intrapersonal.

The factors that influence emotional intelligence are as follows:

1. Self Awareness
   The ability of a person to understand the various potentials in themselves regarding their strengths and weaknesses.
2. Self Regulation
   A person's ability to control or control emotions in himself.
3. Self Motivation
   The ability to motivate.
4. Social Awareness
   Social awareness refers to having understanding and sensitivity to the feelings, thoughts, and situations of others.
5. Social Skills
   The ability to establish social relationships.

Methodology

This research approach uses a quantitative descriptive research approach that aims to describe systematically, factually, and accurately the facts and nature of a particular object or population. This study also explains the causal relationship between exogenous variables and endogenous variables.

The study was conducted on the employees of PT. Jasa Marga, Medan has a total of 172 employees of PT Jasa Marga, Medan, with sampling using the Slovin formula with a margin of error of 5% and a total sample of 120 employees. Secondary data used are books, related journals, staffing data, and other supporting data related to this research, both in terms of variables, types of research, and appropriate samples. Data analysis used SPSS Version 22.00 to examine the effects of moderation caused by emotional intelligence on the variable work effectiveness.
The source of data comes from primary data and secondary data. Primary data come from research questionnaires distributed to research respondents. Secondary data used are books, related journals, staffing data, and other supporting data related to this research both in terms of variables, types of research, and appropriate samples. Data analysis techniques using Moderated Regression Analysis (MRA). Data analysis used SPSS Version 22.00 to examine the effects of moderation caused by emotional intelligence on the variable work effectiveness.

To make it easier to see the direction of research, the description of the research model used in this study is described as follows:

**Figure 1. Research Model**

![Research Model Diagram]

The hypotheses in this study are as follows:

1. Individual characteristics have a positive and significant effect on employee work effectiveness
2. Job characteristics have a positive and significant effect on employee work effectiveness
3. Emotional intelligence moderates the effect of individual characteristics on employee work effectiveness
4. Emotional intelligence moderates the effect of job characteristics on employee work effectiveness

**Result and Discussion**

The results of the study based on the distribution of data obtained.
Table 2: Model for Paper

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Characteristics</td>
<td>120</td>
<td>18</td>
<td>40</td>
<td>30.24</td>
<td>5.323</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>120</td>
<td>27</td>
<td>49</td>
<td>38.26</td>
<td>5.167</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>120</td>
<td>22</td>
<td>50</td>
<td>38.22</td>
<td>6.031</td>
</tr>
<tr>
<td>Work Effectiveness</td>
<td>120</td>
<td>22</td>
<td>50</td>
<td>38.16</td>
<td>6.236</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average value of individual characteristic variables is 30.24. The standard deviation value of individual characteristic variables is 5.323. The average value of the job characteristics variable is 38.26. The standard deviation value of the job characteristics variable is 5.167. The average value of the emotional intelligence variable was 38.22. The standard deviation value of the emotional intelligence variable is 6.031. The average value of the variable work effectiveness of 6.236. The standard deviation value of the work effectiveness variable is 6.236.

To test the feasibility of the model, a classical assumption test is performed: normality test, multicollinearity test and heteroscedasticity test. The normality test results are described in table 3.

Table 3: Normality Test

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
<th>Unstandardised Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>120</td>
</tr>
<tr>
<td>Normal Parameters(^{a,b})</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0E-7</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>3.53466918</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.068</td>
</tr>
<tr>
<td>Positive</td>
<td>.036</td>
</tr>
<tr>
<td>Negative</td>
<td>-.068</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>.747</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.632</td>
</tr>
</tbody>
</table>

\(^{a}\) Test distribution is Normal.
\(^{b}\) Calculated from data.

Asymp Value Sig. (2-tailed) of 0.632 > 0.05, meaning that the research data is normally distributed. Furthermore, the results of multicollinearity tests are described as in table 4.
Based on Figure 2, it is known that the data distribution in scatterplot graphs are randomly distributed and do not form patterns. It means that distributed power meets the requirements of heteroscedasticity. After fulfilling the classical assumption test provisions, regression modelling is carried out on individual characteristic variables and job characteristics on work effectiveness. The results of data processing for the substructure I regression model are as in table 4.

### Table 4: Coefficients\(^a\) Substructure I

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.706</td>
<td>2.457</td>
<td>1.508</td>
<td>.134</td>
</tr>
<tr>
<td>Individual Characteristics</td>
<td>.575</td>
<td>.110</td>
<td>.491</td>
<td>5.217</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>.446</td>
<td>.114</td>
<td>.369</td>
<td>3.927</td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Job Characteristics

Research model of substructure 1 is:

\[
Y_1 = 3.706 + 0.575 X_1 + 0.446 X_2
\]
The results of the moderation test of emotional intelligence variables on the influence of individual and occupational characteristics variables on work effectiveness are shown in table 3.

Table 5: Residual Test Results 1

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardised Coefficients</td>
<td>Standardised Coefficients</td>
<td>t</td>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.246</td>
<td>1.049</td>
<td>4.049</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Work Effectiveness</td>
<td>-.057</td>
<td>.027</td>
<td>-.190</td>
<td>-2.099</td>
<td>.038</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Abs_Res_1

T value of -2.099 with a significant level of 0.038> alpha 0.05. Thus the residual test shows that emotional intelligence moderates the influence of individual characteristics on work effectiveness. Thus, the hypothesis that emotional intelligence reinforces the effect of individual characteristics on the work effectiveness of PT. Jasa Marga is accepted.

Table 6: Residual Test Results 2

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardised Coefficients</td>
<td>Standardised Coefficients</td>
<td>t</td>
<td>Sig.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.112</td>
<td>.661</td>
<td>4.709</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Work Effectiveness</td>
<td>-.037</td>
<td>.017</td>
<td>-.196</td>
<td>-2.169</td>
<td>.032</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Abs_Res_2

T-value of -2.169 with a significant level of 0.032> alpha 0.05. Thus the residual test shows that emotional intelligence moderates the effect of job characteristics on work effectiveness. Thus, the hypothesis that emotional intelligence reinforces the effect of job characteristics on the work effectiveness of employees of PT. Jasa Marga is accepted.

Conclusion

The results of the study answer the proposed hypothesis, where partially individual characteristics have a positive and significant effect on work effectiveness. It means that each increase in the individual characteristics of PT, Jasa Marga will automatically increase the effectiveness of its employees. The results of this study indicate that the individual model that is reflected from its characteristics such as nature, attitude, and physicality that supports the work will increase the effectiveness of good work. Of course, this is adjusted to the needs of
available positions. The results of this study are consistent with research conducted by Keller (2017), which states that individual characteristics influence the effectiveness of the work done by someone. It is confirmed by the Work Behavior Purpose theory, which states that an innovative orientation to employee work engagement can be predicted from 1-5 years, which in the following year is assessed by his direct supervisor (Barrick et al., 2013).

The results of this study are in line with research conducted by Latif (2013) because the individual characteristics of a person can be extracted from the identity held in the form of age, sex, marital status, and parts of other individuals. Employees' identities have different levels of work effectiveness, where men of productive age are more effective at work due to physical condition that is still prime compared to men who are over the productive age—likewise, employees of PT. Jasa Marga has different individual character backgrounds. Individual characteristics reflect the physical condition of employees. The better the characteristics of individual meals, the more effective the work of the employee. The excellent physical condition will increase endurance and the body's ability to work, as well as affect a person's level of stress control.

Partially the characteristics of work have a positive and significant effect on work effectiveness. It means that each increasing employee job characteristics of PT. Jasa Marga will automatically increase the effectiveness of its employees. The results showed that the work given to the employee affected the effectiveness of the employee's work. The ability of employees to complete the work done is a benchmark for providing job descriptions that are tailored to the qualifications of the employees.

The results of this study are consistent with research conducted by Johari and Yahya (2016), which states that job characteristics are strictly related to work effectiveness. Variety Skills describe job characteristics, Task Identity, Task Significance, and Feedback. In reality, employees are given the freedom to complete work and make decisions in carrying out work. It aims to foster employee confidence in working and feeling valued. However, employees often neglect work carried out due to lack of monitoring carried out and the lack of strict sanctions for disciplinarians in the company.

The results answer the hypothesis, which states that emotional intelligence moderates the effect of individual characteristics on work effectiveness. It means that employees will increase their work effectively if they are working smart. Working smartly means that employees who are above the productive age will have a reduced technical ability, but the effectiveness of their work will increase because their experience in dealing with the work done is also increasing. Emotional intelligence will trigger someone to think logically, which in turn will encourage someone to work optimally according to their abilities—working optimal means that employees will take comfort in the work environment to continue to
survive in work done by working hard. Of course, this will have a positive impact on the effectiveness of the work of employees and companies.

The results answer the hypothesis, which states that emotional intelligence moderates the effect of job characteristics on work effectiveness. It means that the more emotionally intelligent an employee is, the more effective the work he does. Work effectiveness does not always discuss work that requires intelligence; some work requires workers who prioritise emotional intelligence. Emotionally intelligent people will have good self-control because they can understand the potential that exists in themselves, able to control emotions, able to motivate themselves, able to read situations well, and have good social relations within the company. All of these things will be good potential for someone to finish his job well, even under any conditions.
REFERENCES


