The Mediating Role of Career Development: A Study of the Effect of Job Characteristics and Job Placement on Employee Performance

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The purpose of this study is to develop an understanding of the effect of job characteristics on job placement, career development, and employee performance at the Steam Power Plant (PLTU) outside of Java Island PT PJBS. The research sample is organic employees who received training at least once, with a total of 300 employees. The research sampling method is based on area proportional random sampling. The analysis method of SEM-PLS is used to analyse the relationship between job characteristics and job placement, career development and employee performance. The results showed that job characteristics had a significant positive effect on job placement, job characteristics had a significant positive effect on career development, job characteristics had a significant positive effect on employee performance, job placement had no significant effect on employee performance, and career development had no significant effect on employee performance. Job placement and career development cannot mediate the relationship between job characteristics and employee performance. It is hoped that further studies can further explore the role of job characteristics on employee performance at the PLTU unit outside Java island, PT PJBS Indonesia. It is important to carry out further studies where data are taken from various work units and research areas of PT PJBS or other organisations. Job characteristics play an important role in the PLTU unit outside the Java island of PT PJBS. The results of this study can be used to redesign jobs and training for employees of PT PJBS to ensure a high level of performance.

Key words: job characteristics, job placement, career development, employee performance, organic employees of PT PJBS
Introduction

Company goals can be achieved if the company has employees who perform well when doing their jobs. Performance is productivity which expresses the quantity, quality, and contribution of work. When productivity is high, the overall performance in the organisation will be high (Schermerhorn et al., 2006; Su, 1999; Sun, 2001). Speaking of performance, it cannot be separated from the system of performance appraisal, which is the work of employees within the scope of responsibilities which are based on a system of formal and structured, used as an instrument to measure, assess, and affect the properties associated with the work, controlling the behaviour of employees, including the level of absenteeism, work results, making decisions related to salary increases, giving bonuses, promotions, and placing employees in positions that are suitable for their competence.

Bonner (1999) defines three major categories as determinants of employee performance, namely person variables, task variables, and environmental variables. Person variables include attributes that a person has before performing a task such as knowledge content, organisational knowledge, abilities, self-confidence, cognitive style, intrinsic motivation, cultural values. Task variables include factors that vary both on and off the task, such as complexity, presentation format, processing and standby mode response. Meanwhile, environmental variables include all conditions, circumstances, and influences around people who perform certain tasks, such as time pressure accountability, goals set and feedback.

The fundamental basics of the relationship between job characteristics, job placement, career development and employee performance is through the Attribution theory approach (Heider, 1958) which says a person's behaviour is determined by internal and external forces. Performance is a multidimensional construct, its measurement also varies depending on complexity. The factors that shape performance in the context of the company, the behaviour of each employee is reflected in job characteristics that require the ability of employees to do the job including job placement. When employees are given the job characteristics that match their interests, talents based on the position, this will improve employee performance.

Job characteristics are antecedents of organisational behaviour, which are closely interwoven with organisational structures and functions which are the main pillars of performance (Torraco, 2005). That job characteristics can have enormous positive and negative impacts on organisational success and individual well-being (Borman et al., 2003). Robbins (2003) identifies job characteristics into job-job characteristics, how combined characteristics can form different jobs, and the relationship between job characteristics and employee motivation, satisfaction, and performance. According to Suman and Srivastava (2012), job characteristics combine different
aspects of the job, such as clarity of roles, role overload, role conflict, task significance, autonomy level, scope of work and expertise.

The suitability of a person with a job is a simple but important concept in that it involves adjusting the characteristics of the person coupled with the clarity of job characteristics; if someone is not suitable for the job, that person can be changed or replaced, or the job is changed. Matching someone is not something that is easy to do. The right placement process is not enough to support employee performance, but the existence of work experience will make it easier to carry out the job, compared to old and new employees, they cannot be equated (Soetjipto, 2007).

Robbins (2003b) states that career development as a policy and practice of an organisation's human resources is an important force for shaping employee behaviour and attitudes. One of the efforts to have employees with high performance is the support of a good career development program. Employee career development is the responsibility of the company in human resource planning, so that employees have a positive attitude to produce positive behaviour which ultimately becomes an advantage for the company and employees.

LITERATURE REVIEW

Performance is a type of result after work is completed; this is the level of achievement of each job (Byars & Rue, 2000), and the fulfillment of organisational rules, expectations, or requirements for the job (Campbell, 1990). Cushway stated that employee performance is the work of a person after being compared with predetermined targets. Al-Ahmadi (2009) suggests that the nature of the job itself is found to be positively correlated with performance, which suggests that satisfaction with the amount of variation and challenges in one's job does actually affect performance.

Job characteristics. A job determines a person's values and place in society, and will affect the psychological identity and well-being of employees who spend most of their time at work, so that the type of work and work environment has an important influence on employee life and job satisfaction. Job characteristics are all job factors and are directly related to employee attitudes and behaviour at work (J. Richard Hackman & Oldham, 1976). Hackman and Oldham argue that jobs with more challenges and variety inspire employees to improve their skills and work attitudes. Job Characteristics Theory (J. R. Hackman & Oldham, 1980; J. Richard Hackman & Oldham, 1976) suggests that job characteristics are a system or situational factors that affect the psychological conditions and attitudes of employees. In other words, the job characteristics’ theory describes the relationship between job characteristics and individual responses to work.

Hackman and Oldham's job characteristics’ model (JCM) focuses on measuring the objective characteristics of a task, which builds on task characteristics that result in high internal work
motivation, job satisfaction and high quality performance (Abraham, 1999). This model recognises that each employee may respond differently to the same job (individual job interactions), and is formulated to "diagnose the motivational nature of work prior to redesign" (J. Richard Hackman & Oldham, 1976). Humphrey et al., (2007) conducted a meta-analysis and developed an integrative work design typology, and developed a comprehensive measure called the Work Design Questionnaire (WDQ). The focus of these measures recognises occupation and the relationship between work and the wider environment (Parker et al., 1998). The development of the WDQ, by reviewing the job design literature, identifies the main job characteristics and measures previously used. This review is then used to develop a series of items designed to make use of the characteristics identified.

**Job placement.** The placement activity is one of the human resource management functions in the employee procurement process. The main purpose of selection is the placement, or the placement of a person into an appropriate job position. Employee job placement is a follow-up to the employee recruitment policy. Job placement means allocating employees to certain work positions (Veithzal & Sagala, 2004). Employees who are placed in certain positions must have the competencies needed to carry out their work effectively and efficiently. According to Schuler and Jackson (1997), placement is related to the matching of a person with the position he will hold based on the needs and knowledge, skills, abilities and personality of the employee. According to Malthis and Jackson (2006), it is very important to see the suitability of people's knowledge, skills and abilities with job characteristics and job demands that allow employee performance to increase, turnover and absenteeism are lower, and other HR problems to decrease. Kumar and Sharma (2001) show that proper placement of workers reduces employee turnover, absenteeism and accidents, and increases morale, all of which have implications for employee performance and productivity in organisations, even decreasing organisational efficiency, increasing friction, and threats to organisational integrity, and frustration from personal and professional ambitions.

**Career development.** A career in organisational life is the entire work done and the position held by a person during his work or during his active period so that he enters retirement age (Sondang, 2009). Career development aims at ensuring that the right people will be available to meet the requirements of the workforce, and to provide employees with more realistic job expectations (Robbins, 2003b). According to French (1986), Robbins (Robbins, 2003a) and Bernardin (Bernardin, 2007), proper and effective career development is the responsibility of the organisation and employees. One indicator that shows the effectiveness of career development programs is changes in the performance index, namely reduced employee turnover, lower employee absenteeism, increased employee morale, increased employee performance levels, reduced employee time to fill job vacancies, and increased promotion. from within (Bernardin, 2007).
RESEARCH METHOD

Research method. The basis of this research underlines the job characteristics and job placement, career development on the performance of the employees of the PLTU unit outside Java island, PT PJBS. Previous researches conducted, among others: (Ali & Zia-ur-Rehman, 2014; Daryanto, 2014; Hazem S, Kassem; Ahmed M, 2013; Kaseger F et al., 2017; Kavoo-Linge & Kiruri, 2013; Siahaan et al., 2016; Sudiardhita et al., 2019; Tjatur Bagus Isbandi, Abdul Rivai, 2018).

![Hypothoses Model](image)

Figure 1 Hypotheses Model

HYPOTHESES

The relationship between job characteristics and placement. J Hackman and Oldham (1976), stated that job characteristics are all job factors and are directly related to the attitudes and behaviour of employees at work. So that jobs with more challenges and variations inspire employees to improve their skills and work attitudes. According to Malthis & Jackson (2006), placements usually focus on the knowledge, skills, and abilities of people with job characteristics. A job is a set of job roles throughout an organisation that have general job requirements, such as tasks, responsibilities, goals, or methods for achieving these responsibilities, as well as various other requirements such as knowledge, skills, and abilities (Morgeson et al., 2010). There is no research on the relationship between job characteristics and job placement. Based on the description above, the hypothesis of this research is:

H1: Job characteristics influence job placement

The relationship between job characteristics and career development. The job characteristics model from Hackman and Oldham (1980) showed that job characteristics can influence career development and satisfaction. Luthans (2006), stated that in order for a job to be more enjoyable, the job design is made more attractive according to the skills, interests, competencies and responsibilities of employees, as well as providing fair salaries, benefits, and promotion...
opportunities according to company capabilities. Daryanto (2014) in his empirical study stated that job characteristics have an effect on career development. Based on the description above, the hypothesis of this research is:

H2: Job characteristics affect career development

**The relationship between job characteristics and employee performance.** Knapp and Muitaba (2010), said that job design has become one of the most effective tools used to optimise employee performance. The results of Ali and Rehman's research showed that job design has a significant positive effect on employee performance through job satisfaction. An empirical study proves that not all dimensions of job characteristics have an effect on employee performance (Hazem S, Kassem; Ahmed M, 2013). Based on the description above, the hypotheses in this study are:

H3: Job characteristics affect employee performance

**The relationship between job placement and employee performance.** Dessler, (2008) stated that incorrect placement can result in poor employee performance which in turn can lead to reduced organisational efficiency, increased friction, threats to organisational integrity and frustration from personal and professional ambitions. Instead, he argues that proper placement encourages personal growth, provides a motivational climate for employees, maximises performance and increases the likelihood that organisational goals will be met. Research by Siahaan et al., (2016), stated that competence and job placement have a significant effect on performance through career development although they have very little effect. Kavoo-Linge and Kiruri (2013) stated that not all dimensions of job placement have an effect on employee performance. Based on the description above, the hypotheses in this study are:

H4: Job placement affects employee performance

**The relationship between career development and employee performance.** Robbins and Judge (2008) Organisational Behaviour Model illustrated that career development is one of human resource policies and practices. One of the indicators that shows the effectiveness of career development programs is the changes in the performance index, namely reduced employee turnover, lower employee absenteeism, increased employee morale, increased employee performance levels, reduced employee time to fill job vacancies, and increased promotion from within (Bernardin, 2007). Research by Sudiarditha et al., (2019), and Isbandi et al., (2018), stated that career development has an effect on employee performance, meanwhile Siahaan et al., (2016) and Kaseger F et al., (2017) stated on the contrary, that career development has no significant effect on employee performance. Based on the description above, the hypothesis in this study is:
H5: Career development affects employee performance

RESEARCH METHODOLOGY

Survey instruments. The variables in this study consisted of 4 (four) variables, namely: job characteristics, job placement, career development, and employee performance. The measurement of the exogenous independent variable of job characteristics consists of 4 (four) indicators with 34 items. Endogenous variables are job placement consisting of 3 (three) indicators with 12 items, career development consisting of 5 (five) indicators with 17 items, and employee performance consisting of 7 (seven) indicators consisting of 22 items. This study also uses a 5-point Likert scale (from strongly agree to strongly disagree). Demographic variables include gender, age, education level, position, years of service, training, initial placement, and current placement.

Sample. The population in this research is the organic employees of the PLTU unit outside Java Island. The sampling technique is proportional random area sampling. The sample characteristics are (1) organic employees of PLTU units outside Java Island, (2) have attended training at least 1 (one) time, (3) PLTU units outside Java island include: Amurang, Bangka Belitung, Bolok, Kendari, Ropa, Tidore, Ketapang, Tembilahan, and Banjarsari. The number of samples is 300 people.

Data analysis. Inferential statistics, SEM-PLS (WrapPLS) is used to examine the effect of job characteristics on job placement, career development, and employee performance. Abdillah and Jogiyanto (2015), PLS is a variant-based structural equation analysis (SEM) that can simultaneously test the measurement model as well as test the structural model. The measurement model is used to test the validity and reliability, while the structural model is used to test the causality (hypothesis testing, with predictive models). Conceptually, SEM-PLS is similar to ordinary least square (OLS) regression analysis, because it aims to maximise the variants of endogenous variables that can be described in the model. In other words, the aim is to maximise the R-squared values and minimise the residual or prediction error. SPSS version 24 for Windows is also used to facilitate data analysis.

RESEARCH FINDINGS

Respondent profile. 95.7% of respondents were male while the remaining 4.3% were female. 27.4% aged between 20 to 24 years, 48% aged 25 to 29 years, 15.3% aged between 30 to 34 years, 8.7% aged between 34.5 to 39 years, 0.3 % are 40 years old, and 0.3% are 54 years old.
Based on the level of education, 45% were high school / vocational school graduates, 11.3% were Diploma One graduates, 22.7% were Diploma Three graduates, 20.7% were University graduates, and 0.3% were Masters graduates. 12% have a working life of less than 2 years, 62% with terms of between 2 and 5 years, 25% with terms of between 5 to 10 years, and 1% have a service life of over 10 years. 51% attended one-time training, 17.7% training twice, 15% training three times, 6% training four times, 5.7% training five times, 2.7% training six times, 1% training seven times, 0.7% training eight times, and 0.3% training nine times. The initial placement of respondents was spread throughout Indonesia.

**Construct validity, dimensions, and reliability.** Based on the results of the analysis, the loading factor of all indicators measuring 4 variables is good through testing through convergent validity of 1st order, so all items measuring indicators of 4 variables (job characteristics, job placement, career development, and employee performance) with loading factor ≥ 0.6, so that the indicator measuring the indicator is declared valid. Convergent validity of 1st order results in AVE value ≥ 0.5 which is stated that the item measuring the indicator is declared valid.

Testing the validity of the 2nd order of the formative model shows that all indicators of job satisfaction variables produce a probability value ≥ 0.5 which is declared valid. Testing the validity of the 2nd order of the reflective model, it is known that all indicators of the variable job characteristics, job placement, and career development have a loading factor of ≥ 0.6 to be declared valid. Testing construct reliability through Cronbach Alpha and composite reliability. All items that measure indicators of 3 variables (job characteristics, career development, and employee performance) composite reliability ≥ 0.7 and Cronbach's alpha ≥ 0.6 are declared reliable.

**Model analysis.** The first research model presented the effect of job characteristics on job placement, job characteristics on career development, job characteristics on employee performance, job placement on employee performance, and career development on employee performance. The first stage using SEM-PLS is the Goodness of Fit Model through R-Square and Q-Square predictive relevance with a Q2 value of 0.882 indicating that the contribution of job characteristics, job placement, and career development to overall employee performance (both direct and indirect effects) amounting to 88.2% while the remaining 11.8% is the contribution of other factors not discussed in this study.

Furthermore, the criteria-based hypothesis testing states that if the path coefficient is positive and the probability ≤ level of significance (Alpha (α) = 5%) then there is a positive and significant effect of exogenous variables on endogenous variables.
Table 1 shows that of the 5 hypotheses, 3 hypotheses are accepted and 2 hypotheses are rejected. The findings are as follows: (1) Based on the SEM-PLS analysis, it produces a path coefficient of 0.691 with a probability value of <0.001 (t = 1.96 alpha 5%); therefore H1 is accepted, meaning that job characteristics have a positive and significant effect on job placement.

Table 1 – Hypothesis Testing Results Direct Effect

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Eksogen</th>
<th>Endogen</th>
<th>Path Coefficient</th>
<th>SE</th>
<th>P Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>X1</td>
<td>Y1</td>
<td>0.691</td>
<td>0.052</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>X1</td>
<td>Y2</td>
<td>0.211</td>
<td>0.056</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>X1</td>
<td>Y3</td>
<td>0.447</td>
<td>0.054</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Y1</td>
<td>Y3</td>
<td>0.042</td>
<td>0.057</td>
<td>0.231</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5</td>
<td>Y2</td>
<td>Y3</td>
<td>0.091</td>
<td>0.057</td>
<td>0.055</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Source: Primary, Data 2020

(2) The path coefficient is 0.211 with a probability value of <0.001. This means that the t-statistical value <t table value (t = 1.96 alpha 5%). Therefore, H2 is accepted. In other words, job characteristics have a positive and significant effect on career development. (3) The path coefficient is 0.477 with a probability value of <0.001. This means that the t-statistical value <t table value (t = 1.96 alpha 5%). Therefore, H3 is accepted. In other words, job characteristics have a positive and significant effect on employee performance. (4) The path coefficient is 0.042 with a probability value of 0.231. This means that the t-statistical value <t table value (t = 1.96 alpha 5%). Therefore, H4 is rejected. In other words, job placement has a positive and insignificant effect on employee performance. (5) The path coefficient is 0.091 with a probability value of 0.055. This means that the t-statistical value <t table value (t = 1.96 alpha 5%). Therefore, H5 is rejected. In other words, career development has a positive and not significant effect on employee performance. The conclusion is that there are 2 hypotheses that are rejected, namely H4 (job placement has a positive and insignificant effect on employee performance) and H5.

Figure 2 - Research Finding
Second, job placement and career development are mediating variables between job characteristics and employee performance. According to Preacher & Hayes (2004), there are requirements to test the mediating variables, namely: 1) independent variable relationship to the mediator is significant, 2) relationship to dependent variables mediator is significant, 3) the relationship between the mediator to mediator is significant.

Based on statements from Preacher & Hayes (2004), it can be said that job placements and career development do not qualify for the mediation test.

**DISCUSSION AND RESULTS**

The results showed that job characteristics had a positive and significant effect on job placement. This empirical result is a new finding because to the author's knowledge there have not been any studies examining this relationship. Malthis & Jackson (2006) states that work is designed to take advantage of important job characteristics that employees tend to accept positively.

The results also found that job characteristics have a positive and significant effect on career development. This is in accordance with Daryanto (2014) research proving that job characteristics have an effect on career development. Luthans (2006) stated that organisations must design more enjoyable jobs by designing jobs to be more attractive according to the skills, interests, competencies and responsibilities of employees, as well as providing fair salaries, benefits, and promotion opportunities according to company capabilities.

This study also found that job characteristics have a positive and significant effect on employee performance. The findings support previous research conducted by Ali & Zia-ur-Rehman (2014), Yuxiu et al., (2011), Zareen et al., (2013), Johari et al., (2015). These findings are not in line with previous research conducted by Hazem S, Kassem; Ahmed M (2013).

Another finding is that job placement has a positive and insignificant effect on employee performance. These findings support previous research, including Kavoo-Linge & Kiruri (2013), and Narotama, (2016). These findings are not in line with previous research conducted by Siahaan et al., (2016), and Sudiarditha et al., (2019), which states that job placement has a significant effect on employee performance.

Furthermore, the study found that career development has a positive and insignificant effect on employee performance. This is different from the research findings of Sudiarditha et al., (2019), Isbandi et al. (2018), Charity (2015), and Wahjusaputri (2013) which stated that career development is correlated and has a positive and significant effect on employee performance. Previous research that supports this finding is Kavoo-Linge & Kiruri (2013), Siahaan et al., (2016)
who stated that career development have no significant effect on employee performance, and Kaseger F et al. (2017) stated that career development, work experience, and involvement simultaneously have a significant effect on employee performance, but partial career development has no significant effect on employee performance.

CONCLUSION

The main objective of this study is to describe the effect of job characteristics on job placement, career development, and employee performance in the electrical service industry. Based on a review of previous studies, no research has examined the relationship between job characteristics and job placement. Previous studies found that there was an influence and no effect of job characteristics on career development, job characteristics on employee performance, job placement on employee performance, and career development on employee performance. The model was developed to explain the effect of job characteristics on job placement, job characteristics on career development, job characteristics on employee performance, job placement on employee performance, and career development on employee performance. To achieve the research objectives, SEM-PLS was used as data analysis.

Then, the mediating variable was used in a model where job placement, and career development as a mediator on job characteristics on employee performance; theoretically, it is not easy to state that this research model has advantages. To overcome this problem, empirical testing is carried out.

Based on the findings of this study, there is a direct and indirect relationship between variables. The findings of this study are: (1) job characteristics have a positive and significant effect on employee placement, (2) job characteristics have a positive and significant effect on career development, (3) job characteristics have a positive and significant effect on employee performance, (4) job placement has a positive and insignificant effect on employee performance, and (5) career development has a positive and insignificant effect on employee performance. Based on the research results it is known that job characteristics are an important factor affecting employee performance. It can be said that only job characteristics affect employee performance so that the mediating variables of job placement and career development do not strengthen the relationship between job characteristics and employee performance.

Practical implications. The practical implication is that job characteristics are an important element as a source that can encourage job placement, and also a good source in planning employee career development, and employee performance. The research has shown that job characteristics result in employee performance and are necessary for enhancing a high quality of work. Job
characteristics are fundamental elements to achieve company goals. The company hopes that employees can improve performance through the initiatives they have; this initiative shows independence in carrying out employee duties and responsibilities.

The research limitations and suggestions for further research. Limitations of the study, namely (1) this study is cross sectional because it was carried out in a certain period due to changes in employee perceptions that can occur at different times due to changes in the company's external environment, company managerial practices, and internal employees; (2) The sample used in this study is limited in the context of the PLTU unit outside Java Island, and therefore may not be generalizable in other work units both in Java and outside Java from PT PJBS.

It is expected that future research can develop models that have been built in this study, considering many relationships between variables that have not been significant, using a qualitative approach or the quantitative-qualitative methods (mixed methods); redevelop the variables and indicators which have not been used in this study, particularly the variable is not significant; developing the existing model by adding variables individual characteristics; further expand the unit, and the study area, or doing research on different organizations, so that the results can be compared in order to test the generalizability of this research model.
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