

Investigating the Effect of Employability on Work Productivity: Mediating by Stress

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This study aims to analyse the effect of employability on work productivity by mediating stress. This research uses a quantitative approach with a survey method. The sample used in this study is 303 people in the permanent workforce of the construction service sector who have a minimum of high school education equivalent that determines proportionate random sampling. The research data was obtained from distributing questionnaires and analysed using structural equation modelling (SEM) analysis supported by descriptive statistical analysis. The results of this study indicate that employability and stress had a direct effect on work productivity; employability had a direct effect on stress, and employability had an indirect effect on work productivity with stress mediation. Therefore, improvements in employability and reduction of stress can increase work productivity. The novelty of this study is in the form of a research model of the effect of employability on work productivity with stress mediation developed from previous relevant studies with construction service research locations in Jabodetabek, 2019.

Key words: *Employability, work productivity, stress.*

Introduction

Construction project activities in Indonesia are growing and developing rapidly as the country develops. However, in the implementation of construction work, there are often constraints that cause delays in project work so completion does not always go according to plan. This indicates that project management was not carried out properly. Successful implementation of project management is measured by the project's objective achievement, including project completion on time, within budget, according to technical specifications, effective, efficient use of project resources, and accepted by customers (Harold, in Kerzner, 2009). In fact, many

contracting companies in Indonesia, especially projects undertaken by PT Waskita Karya (Persero) Tbk, PT Wijaya Karya and PT Adhi Karya in a number of locations in Greater Jakarta, showed that labour productivity in the construction service sector is less than optimal, with indications that they are unable to achieve work targets, use of project resources are less efficient and less effective, as well as a general lack of discipline in work which is manifested in chatting, smoking, and relaxing during working hours along with a lack of the use of work safety equipment while working.

Work Productivity

Such sub-optimal work productivity needs to be anticipated immediately because productivity is one of the most widely used tools to evaluate, monitor, and improve national industrial and economic performance (Bitran & Chang, in Bashir, Alzebdeh, & Al Riyami, 2014). Productivity is also one of the most important factors affecting the overall performance of every organisation, large or small (Kazaz & Ulubeyli, in Bashier, et al., 2014). Productivity reflects the ratio of output to input (resources) used to produce output (Attar, Gupta, & Desai, 2012; Hersey, Blanchard, & Johnson, 2008; Koontz & Weihrich, in Janjua, 2016). In addition, productivity also shows the ability of employees to produce jobs or goods and services in accordance with standards (Mawanza, 2017) and the multiplication function of employee effort supported by high motivation and employee ability obtained through training (Klingner & Nanbaldian, in Gomes, 2005). Robbins (in Droussiotis, 2004) suggests that productivity is a measurement of performance which includes effectiveness and efficiency. Effectiveness is the ability to achieve goals, while efficiency shows the ability to achieve these goals by using the minimum resources to get maximum results. Lawlor (in Gomes, 2005) states similarly that productivity is a comprehensive measurement of how efficiently and effectively an organisation or economy satisfies five objectives, namely: goals, efficiency, effectiveness, comparability and increasing trends. Sedarmayanti (2009) also mentioned that productivity has two dimensions, namely effectiveness and efficiency. The first dimension relates to achieving maximum performance, in the sense of achieving targets related to quality, quantity and time, while the second dimension relates to efforts to compare inputs with the realisation of their use or how the work is carried out. For Sinungan (2009), productivity is an interdisciplinary approach to setting effective goals, making plans, applying productive methods to use resources efficiently, and maintaining high quality.

Employability

Work productivity is influenced by employability. The results of research carried out by Ybema, Vuuren, and Damd (2017) shows that employability affects work productivity. Employability is the ability of individuals to maintain and develop competencies and qualifications that can increase labour market participation in a sustainable manner, or in other

words, their career potential (Heijde & Heijden, in Peters & Lam, 2015); how individuals perceive their opportunities in the labour market (Berntson & Marklund, in Giorgi, Shoss, & Leon-Perez, 2015); one's ability to identify and realise career opportunities (Fugate et al., in Rothwell & Arnold, 2007); and the perceived ability to achieve sustainable work according to one's qualification level (Rothwell, Herbert & Rothwell, in Guilbert, Laure, Bernaud, Gouvernet, Rossier, 2015). Heijde and Heijden (in Peters and Lam, 2015) stated that conceptually in employability there are five dimensions, namely: (1) specific domains of job expertise and more general competencies in order to improve work relations; (2) proactivity; (3) reactive adaptability to the labour market and organisational change, while maintaining it; and (5) balance between organisational and personal interests (including health, vitality, and work-life balance). Thus, it can be hypothesised:

H₁: Employability has a direct positive effect on work productivity.

Stress

Work productivity is also affected by stress. Several studies report that stress has a direct effect on work productivity (Petreanua, Iordachea, and Seracin (2013); Donald, Taylor, and Johnson (2005); Cherny and Kartikasari (2017); De Silva and Thilakasiri (2014); and Naqvi, Khan, Kant, and Khan (2013)). Lazarus and Folkman (in Colquit, LePine and Wesson, 2009) define stress as a psychological response to demands in which there is something that is endangering and beyond the ability or strength of a person to cope with. In addition, stress is also a mental and physical condition resulting from the threat of danger (physical or emotional) and the pressure to remove it (Greca, in Rue, Ibrahim & Byars, 2016); adverse reactions to people due to excessive pressure on those faced with extraordinary demands, obstacles that must be faced, or opportunities (Robbins & Coulter, 2016); the condition of mental and physical disorders that occur in stressful situations, when resources cannot meet individual demands (Naqvi et al., in Mawanza, 2017); and physiological reactions to threats or environmental pressures, which can be self-controlled, for example, striving for perfection, high ambition or externals such as social pressure, excessive demands or workload (Angheliescu, Edwards, Seifritz, & Kasper, 2018). Cox (in Gibson, Ivancevich, & Donnelly, 2012) identified several categories of stress impacts, namely: subjective, behavioural, cognitive, physiological, and organisational. Thus, it can be hypothesised:

H₂: Stress has a direct effect on work productivity.

Besides influencing work productivity, stress is also influenced by employability. The results of the study concluded that employability has a direct effect on stress, in line with other studies conducted by Viotti, Gloria, Loera, Martini, Sottimano, Converso (2017). Thus, it can be hypothesised:

H3: Employability has a direct negative effect on stress.

From the various results of the research above it can be seen that stress mediates the effect of employability on work productivity, therefore it can be hypothesised:

H4: Employability has an indirect effect on the work productivity with stress mediation.

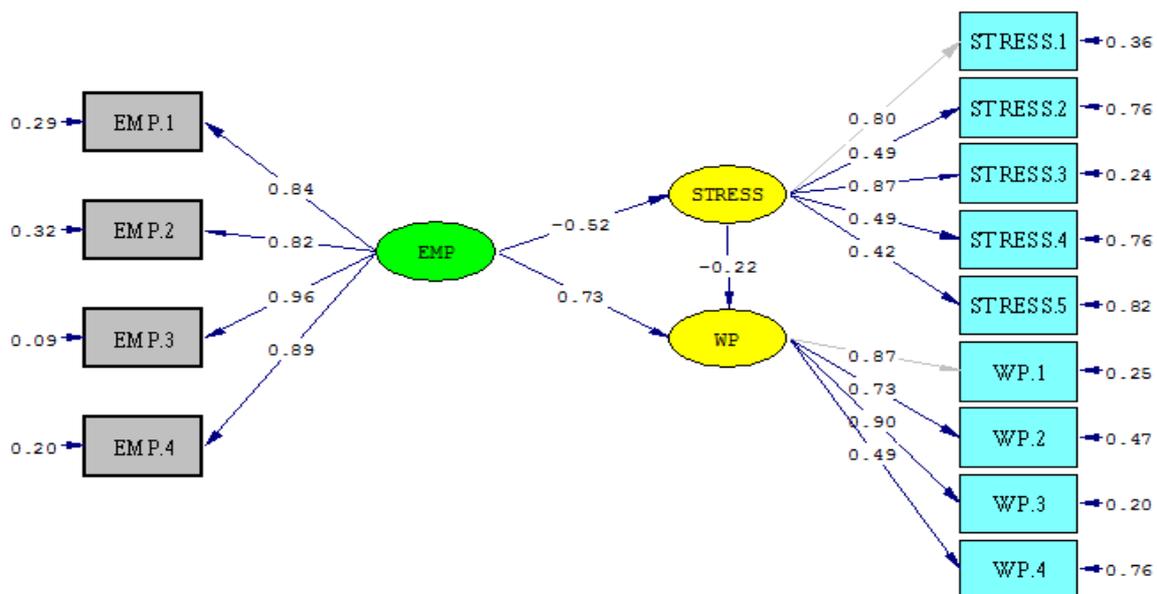
Research Methodology

The sample for this study was 303 people chosen by proportionate random sampling from 1,256 permanent workers in the construction service sector working on construction projects in the Greater Jakarta area based on the Slovin formula (in Widodo, 2019) with an error margin of 5%. The data was collected by questionnaire in the form of a Likert scale with five alternative answers: always, often, sometimes, rarely, and never. The data was analysed using the Structural Equation Modelling (SEM) formula, the processing of which was carried out with the Linear Structural RELation (LISREL) 8.8 for Windows application. The significance of the direct effect test uses the t-test.

Research Results

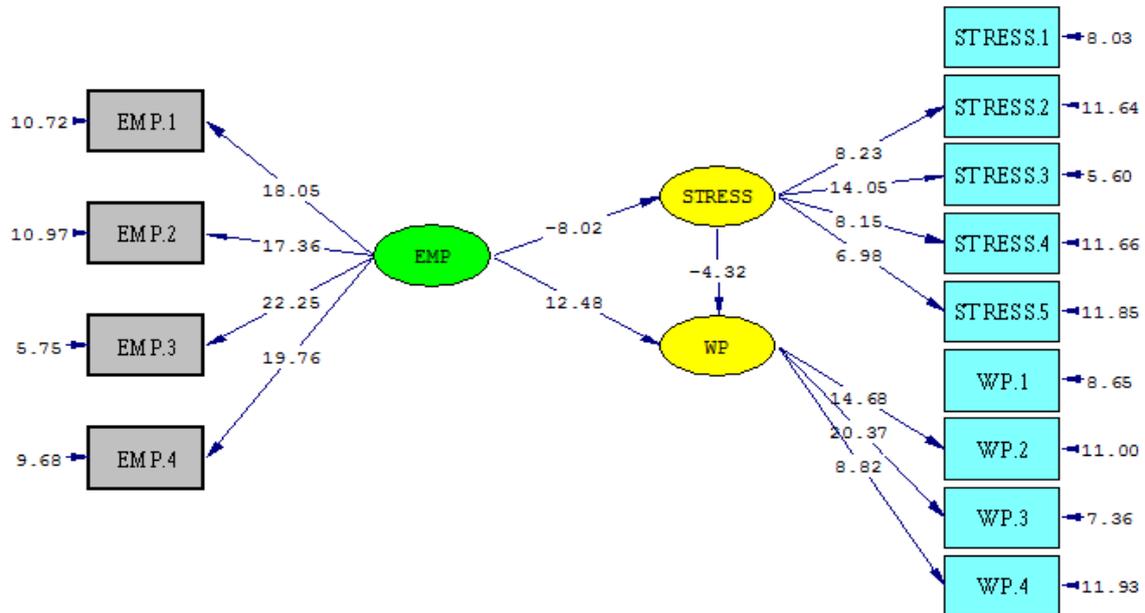
The structural equation model obtained is shown in the path coefficient and t-value as follows:

Figure 1. Path Coefficient



Chi-Square=434.10, df=62, P-value=0.00000, RMSEA=0.141

Figure 2. T-value



Chi-Square=434.10, df=62, P-value=0.00000, RMSEA=0.141

The indexes produced to determine the suitability of the model can be seen in the following table.

Table 1: Model Compatibility Testing

No	Index	Standard Value	Value Obtained	Information
1	P (χ^2)	> .05	.00	Not Fit
2	RMSEA	< .08	.14	Not Fit
3	GFI	> .90	.82	Not Fit
4	AGFI	> .90	.73	Not Fit
5	NFI	> .90	.93	Good Fit
6	NNFI	> .90	.92	Good Fit
7	CFI	> .90	.94	Good Fit
8	IFI	> .90	.94	Good Fit
9	RFI	> .90	.91	Good Fit

The accuracy of the model testing results shows that of the nine indexes there are four categorised indexes as not fit (P (χ^2), RMSEA, GFI, and AGFI) and five indexes categorised as good fit (NFI, NNFI, CFI, IFI, and RFI). From the results of this test, there are more indices that are categorised as good fit, so it can be concluded that the empirical model of the influence

of occupational safety, work skills, and employability on stress and work productivity is in accordance with the theoretical model.

The path coefficients of direct and indirect influence, t_{value} and their significance are summarised as follows:

Table 2: Direct and Indirect Influence Path Coefficients

Path	Path Coefficient	T-value	Significance $\alpha = 5\%$ ($t_{\text{table}} = 1.65$)
Employability (X) → Work Productivity (Y ₂)	.73	12.48*	Significant
Stress (Y ₁) → Work Productivity (Y ₂)	-.22	-4.32*	Significant
Employability (X) → Stress (Y ₁)	-.52	-8.02*	Significant
Employability (X) → Stress (Y ₁) → Work Productivity (Y ₂)	.11 ($-.52 \times -.22$)	3.99*	Significant

* Significant path coefficient ($t_{\text{value}} > t_{\text{table}}$ on $\alpha = .05 = 1.65$)

All direct and indirect effects are significant. The path coefficient of the direct effect of employability on work productivity = .73 and $t_{\text{value}} = 12.48$ is greater than t_{table} ($n > 303$; $\alpha = 5\%$, two tail) = 1.65, so there is a positive and significant direct effect of employability on work productivity. This means the theory and the results of previous studies that are used as the basis for building a hypothesis that employability has a direct effect on work productivity are proven. Thus, improving employability can increase work productivity.

The path coefficient of a direct influence of stress on work productivity = -.22 and $t_{\text{value}} = -4.32$ greater than t_{table} ($n > 303$; $\alpha = 5\%$, two tail) = 1.65, so there is a negative and significant direct effect of stress on work productivity. This means the theory and the results of previous studies that are used as the basis for building a hypothesis that stress directly affects work productivity are proven. Thus, increasing stress can reduce work productivity, or reducing stress can increase work productivity.

The path coefficient of the direct effect of employability on stress = -.52 and $t_{\text{value}} = -8.02$ is greater than t_{table} ($n > 303$; $\alpha = 5\%$, two tail) = 1.65, so there is a negative and significant direct effect of employability to stress. This means that the theory and the results of previous studies which are used as the basis for building a hypothesis that employability has a direct effect on stress are proven. Thus, improving employability can reduce stress.

The path coefficient of the indirect effect of employability on work productivity with stress mediation = .11 and t-value = 3.99 is greater than t-table ($n > 303$; $\alpha 5\%$, two tail) = 1.65, so there is an indirect effect and significant employability on work productivity with stress mediation. This means that the theory and the results of previous studies which are used as the basis for building a hypothesis that employability has an indirect effect on work productivity with stress mediation are proven. Thus, improvement in employability supported by stress reduction can increase work productivity.

The structural equation of the stress variable is: $Y1 = -.52 * X$, Errorvar = .73, $R2 = .27$. For occupational safety variables obtained structural coefficient = -.52. The structural coefficient values of the three are negative, thus indicating that the effect of employability on stress is negative, which means that improvements in employability can reduce stress. Employability variables are able to explain stress variable variations of .27 (27%).

The structural equation of work productivity is: $Y2 = -.22 * Y1 + .73 * X$, Errorvar = .26, $R2 = .74$. For work productivity the structural coefficient of stress is obtained = -.22; and employability = .73. The value of the structural coefficient of employability on work productivity is positive, thus indicating that improvements in employability can increase work productivity. Conversely, the structural coefficient of stress is negative, thus indicating that reducing stress can increase work productivity. The variables of employability, and stress in explaining the variations in the variable of high work productivity, that is equal to .26 (26%).

Discussion

The results of this study indicate that employability has a positive and significant effect on work productivity. Employability is the capability of individuals to maintain and develop competencies and qualifications that can increase labour market participation in a sustainable or career potential, which is reflected in specific work skills, proactivity, adaptability, a balance between organisational and personal interests (Peters and Lam, 2015). If the employability of the construction service sector workforce can be well-conditioned, then that shows good will for increasing work productivity, namely the capacity of the workforce to produce a high ratio between the results achieved and the resources used, with indicators: effectiveness and efficiency of work, quality, and standards (Lawlor, in Gomes, 2005; Robbins, in Droussiotis, 2004; Sinungan, 2009). Ybemaa, Vuuren, and Damd's (2017) research results also prove that employability has an effect on work productivity. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that employability has a positive and significant effect on work productivity by setting employment performance in the construction service sector in construction service companies in Jabodetabek.

The results of this study indicate that employability has a negative and significant effect on stress. Employability becomes important in a company, because employability reflects an individual's capability to maintain and develop competencies and qualifications that can increase labour market participation in a sustainable or career potential, which is reflected in specific work skills, proactive, adaptability, balance between organisational and personal interests (Peters & Lam, 2015). A construction service sector worker who shows good employability in accordance with the requirements of the company's desires, will exhibit a lower level of stress as an adjustment response as a manifestation of mental, physical, emotional, and spiritual inability in dealing with threats from outside himself, with indicators: subjective, behavioural, cognitive, physiological, and organisational (Gibson et al., 2012). The research results of Viotti et al. (2017) also shows the effect of employability on stress. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that employability has a negative and significant effect on stress by setting the employment of the construction service sector in construction service companies in Jabodetabek.

The results of this study indicate that employability has a positive and significant effect on work productivity with stress mediation. This shows on the one hand that employability affects stress and on the other hand, that stress affects work productivity. This condition causes the indirect effect of employability on work productivity with stress mediation. That is, when employability is the capability of individuals to maintain and develop competencies and qualifications that can increase labour market participation in a sustainable or career potential, which is reflected in specific work skills, proactivity, adaptability, balance between organisational and personal interests (Peters & Lam, 2015) then it will have an impact on reducing stress levels and have implications on increasing work productivity. The results of previous studies also show that employability affects work productivity (Ybemaa, Vuurenb, & Damd, 2017), stress affects work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), and employability against stress (Viotti et al., 2017). Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that employability affects work productivity by stress mediation within the setting of employment services in the construction service sector in construction service companies in Jabodetabek.

The overall results of this study indicate that employability affects work productivity with stress mediation. These findings are consistent and confirm the results of previous studies, that employability affects work productivity (Ybemaa, Vuurenb, & Damd, 2017), stress influences work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), and that employability has an effect on stress (Viotti et al., 2017). However, compared to the results of previous studies, the findings of this study have a number of differences that represent the novelty element of this study. First, the model. The research model on the effect of

employability on work productivity with stress mediation is proven to be fit and significant for all its causal influences, both direct and indirect so that new findings are different from the results of previous studies that are used as a reference for this research. In this context, the results of this study constitute the development of models from previous relevant studies. Second, location. This research was conducted in Indonesia, by taking the object of research in the construction service sector in Greater Jakarta. Third, time. This research was conducted in 2019, so it has a different time dimension compared to previous studies. With these three different factors, the results of this study show originality especially concerning the models of the effect of employability on work productivity with stress mediation which theoretically can enrich research and literature in the field of management, especially human resource management, and practice can be relied upon as a model for improving work productivity through improving employability and reducing stress.

Conclusion

Employability and stress has a direct effect on work productivity. This indicates that improvements in employability and good stress management can increase work productivity. Employability directly influences stress. This indicates that improvements in employability can reduce stress. Employability had an indirect effect on work productivity with stress mediation. This indicates that employability with mediated stress reduction can encourage increased work productivity and means that improvements in employability supported by reduced stress can increase work productivity.

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