



**The Effect Of Occupational Safety, Work Skills, And Employability On Stress
And Implications On The Productivity Of Employment
Construction Service Workers**

Nurhani

Universitas Negeri Jakarta
Email: hanimuchtar70@yahoo.com

Wibowo

Universitas Negeri Jakarta
Email: wibowo303@yahoo.co.id

Budi Santoso

Universitas Negeri Jakarta
Email: rawdo2003@gmail.com

ABSTRACT

This study aims to analyze the effect of occupational safety, work skills, and employability on stress and its implications on the labor productivity of construction service workers in Jabodetabek. This researcher uses a quantitative approach with a survey method. The sample used in this study are 303 permanent workforce in the construction service sector of structure work (formwork, putting ironn and casting) who have a minimum of high school education equivalent that determines proportionate random sampling. The research data were obtained from distributing questionnaires and analyzed using Structural Equation Modeling (SEM) analysis supported by descriptive statistical analysis. The results of this study indicate occupational safety, work skills, employability and stress have a direct effect on work productivity; occupational safety, work skills and employability have a direct effect on stress; occupational safety, work skills and employability have a indirect effect on work productivity with stress mediation. Therefore, improvements in occupational safety, work skills, employability, and stress can increase work productivity. The novelty of this study is in the form of a research model of the effect of occupational safety, work skills, and employability on work productivity with stress mediation developed from previous relevant studies with construction service research locations in Jabodetabek, 2019.

Keywords: occupational safety, work skills, employability, stress, work productivity.

Received: 4 December 2019 ;

Accepted: 22 January 2020 ;

Publish; June 2020.

How to Cite:

Nurhani., Wibowo., & Santoso, Budi. (2020). The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers. *Journal of Business and Behavioural Entrepreneurship*, 4(1), 1-15. <https://doi.org/10.21009/JOBBE.004.1.01>

INTRODUCTION

As a developing country, construction project activities in Indonesia are growing and developing rapidly. However, in the implementation of construction project work, there are often constraints that cause delays in project work so project completion is not according to plan. This shows that the 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 and 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 labor productivity in the construction service sector is less than optimal, with indications unable to achieve work targets, use of project resources that are less efficient and less effective, as well as lack of discipline in work which is manifested in chatting, smoking, and relaxing during working hours and not using work safety equipment while working.

Such suboptimal 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, Alzebedeh, & Al Riyami, 2014). Productivity is also one of the most important factors affecting the overall performance of every organization, 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, 2013; 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 (effort) supported by high motivation and employee ability (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) also states almost the same thing that productivity is a comprehensive measurement of how efficiently and effectively an organization 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 realization 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. This study aims to analyze the effect of occupational safety, work skills, and employability on stress and its implications on the labor productivity of construction service workers in Jabodetabek. The novelty of this study is in the form of a research model of the effect of occupational safety, work skills, and employability on work productivity with stress mediation developed from previous relevant studies with construction service research locations in Jabodetabek, 2019.

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

LITERATURE REVIEW

Productivity is influenced by the working environment; safety; participation in decision making; career development/progression; health; relate to top management; planning, coordination; communication; training; employee relationships; lighting; noise; color; and air quality (Chaudhari & Pandey, 2012; Sarode & Shirsath, 2014; Hoffman & Mehra, in Bashir, et al., 2014). In the context of the construction workforce, productivity is affected: political situation, equipments shortages, old and inefficient equipment, lack of labor experience, situasi poor site management; difficulty with recruitment of supervisors, difficulty with recruitment of workers, high rate of labor turnover, absenteeism from the work site, communication problems with foreign workers; lack of materials, weather and physical site conditions, lack of proper tools and equipment, design, drawing and change orders, inspection delays, absenteeism, safety, improper plan of work, repeating work, changing crew size and labor turnover (Zakeri et al., in Mahamid et al., 2013; Lim et al., in Mahamid et al., 2013; Mahamid et al., 2013).

In addition, work productivity is also influenced by occupational safety (Prayitno, Palupi, & Khoiron, 2015; Has & Susanty, 2016; Shirali, Savari, Ahmadian-gali, & Salehi, 2016). Occupational safety makes working conditions safe by providing safety equipment, good lighting, keeping floors and stairs free of water, oil, mosquitoes and maintaining good water facilities (Agus, in Paramita & Wijayanto, 2012). Occupational safety is an employee protection from injuries caused by work-related accidents (Rivai, in Al Kautsar, Swasto, & Al Musadieg, 2013); safe conditions from suffering, damage and loss at work (Mangkunegara, in Wardana, Al Musadieg & Nurtjahjono, 2014); a form of conditions that avoid errors and damage to work done by workers / employees (Widodo, 2015); safe or safe condition from suffering, damage or loss at work (Bestari, in Al Kautsar et al., 2013); safety which is closely related to the engine, aircraft, work tools, materials and processing processes, the workplace foundation and its environment and how to do work (Suma'mur, 2010); the whole process of labor protection against the possibility of hazards arising in the work environment (Silalahi & Rumondang, in Widodo, 2015); an attempt to prevent any unsafe acts or conditions that could result in an accident (Swasto, in Al Kautsar et al., 2013). Lutchman et al. (2012) mentions a number of aspects that can affect occupational safety, which are often referred to as 7Es, namely: engineering, enforcement, education, emotion, empathy, empowerment, and engagement. Thus it can be hypothesized:

H1: Occupational safety has a direct positive effect on work productivity.

H2: Work skills have a direct positive effect on work productivity.

H3: Employability has a direct positive effect on work productivity.

H4: Stress has a direct effect on work productivity.

H5: Occupational safety has a direct negative effect on labor stress in the construction service sector.

H6: Work skills have a direct negative effect on labor stress in the construction service sector.

H7: Employability has a direct negative effect on labor stress in the construction service sector.

That means that stress can act as a mediator for the effect of occupational safety, work skills and employability on work productivity, so it can be hypothesized:

H8: Occupational safety has an indirect effect on the work productivity of the construction service sector workforce with stress mediation.

H9: Work skills have an indirect effect on the work productivity of the construction

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.

* <https://doi.org/10.21009/JOBBE.004.1.01>

service sector workforce with stress mediation.

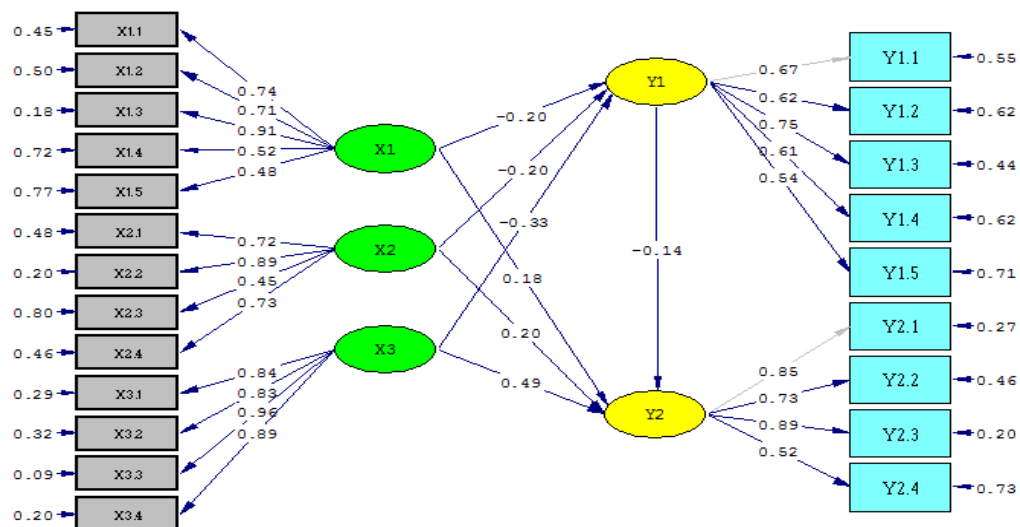
H10 : Employability has an indirect effect on the labor productivity of the construction service sector workforce with stress mediation.

RESEARCH METHOD

The sample of this study was 303 people taken 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, 2018) with an error margin of 5%. Data were collected by questionnaire in the form of a Likert scale with five alternative answers: always, often, sometimes, rarely and never. Data were analyzed using the Structural Equation Modeling (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, while the significance test of the indirect effect uses the shobel test.

RESULTS AND DISCUSSIONS

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



Chi-Square=1849.75, df=199, P-value=0.00000, RMSEA=0.166

Figure 1. Path Coefficient

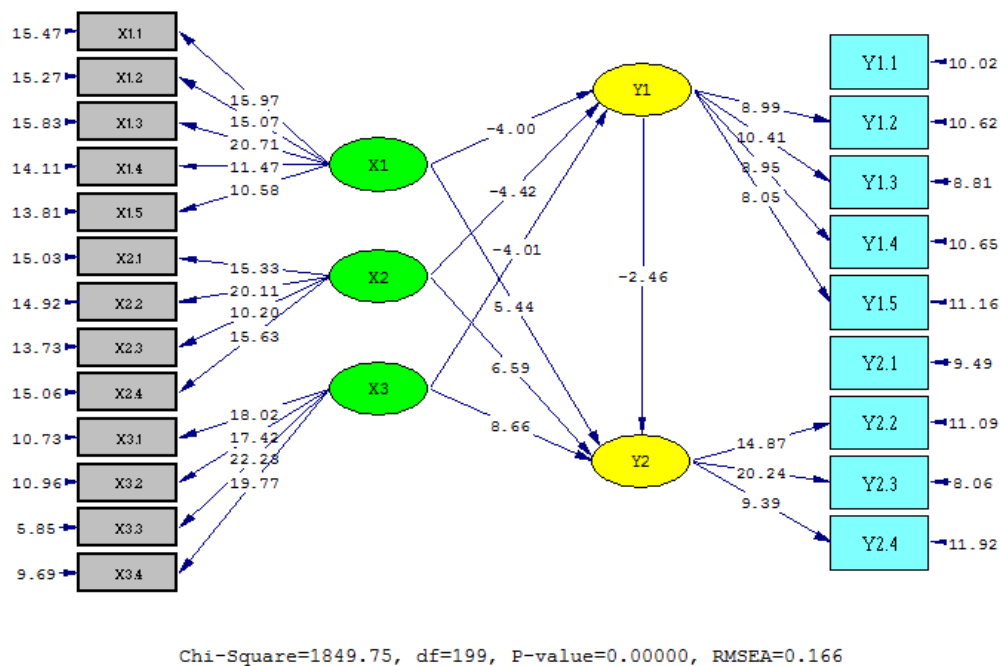


Figure 2. T-value

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)	> 0.05	0.00	Not Fit
2	RMSEA	< 0.08	0.17	Not Fit
3	GFI	> 0.90	0.64	Not Fit
4	AGFI	> 0.90	0.55	Not Fit
5	NFI	> 0.90	0.96	Good Fit
6	NNFI	> 0.90	0.94	Good Fit
7	CFI	> 0.90	0.97	Good Fit
8	IFI	> 0.90	0.97	Good Fit
9	RFI	> 0.90	0.93	Good Fit

The accuracy of the model testing results shows that of the nine indexes there are four categorized indexes not fit (P (χ^2), RMSEA, GFI, AGFI) and five indexes categorized as good fit (NFI, NNFI, CFI, IFI, and RFI). From the results of this test,

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
 * <https://doi.org/10.21009/JOBBE.004.1.01>

there are more indices that are categorized 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} / Z_{count} and their significance are summarized as follows:

Table 2. Direct and Indirect Influence Path coefficients

Path	Path Coefficient	T_{value} / Z_{value}	Significance $\alpha = 5\%$ ($t_{table} / Z_{table} = 1.65$)
Occupational safety (X_1) à Work Productivity (Y_2)	0.18	5.44	Significant
Work Skill (X_2) à Work Productivity (Y_2)	0.20	6.59	Significant
Employability (X_3) à Work Productivity (Y_2)	0.49	8.66	Significant
Stress (Y_1) à Work Productivity (Y_2)	-0.14	-2.46	Significant
Occupational safety (X_1) à Stress (Y_1)	-0.20	-4.00	Significant
Work Skill (X_2) à Stress (Y_1)	-0.20	-4.42	Significant
Employability (X_3) à Stress (Y_1)	-0.33	-4.01	Significant
Occupational safety (X_1) → Stress (Y_1) à Work Productivity (Y_2)	0.03 (-0.20 x -0.14)	9.27*	Significant
Work Skill (X_2) → Stress (Y_1) à Work Productivity (Y_2)	0.03 (-0.20 x -0.14)	9.18*	Significant
Employability (X_3) → Stress (Y_1) à Work Productivity (Y_2)	0.04 (-0.33 x -0.14)	8.51*	Significant

* Significant path coefficient ($t_{value} / Z_{value} > t_{table} / Z_{table}$ on $\alpha = 0.05 = 1.65$)

All direct and indirect effects are significant. The path coefficient of the direct effect of occupational safety on work productivity = 0.18 and $t_{value} = 5.44$ is greater than t_{table} ($n > 303$; $\alpha 5\%$, two tail) = 1.65, so there is a positive and significant direct effect of safety work on work productivity. This means the theory and the results of previous studies that are used as the basis for building a hypothesis that occupational safety directly affects work productivity are proven. Thus, improving occupational safety can increase work productivity.

The path coefficient of the direct influence of work skills on work productivity = 0.20 and $t_{value} = 6.59$ is greater than t_{table} ($n > 303$; $\alpha 5\%$, two tail) = 1.65, so there is a positive and significant direct effect of skills work on work productivity. This means the theory and the results of previous studies which are used as the basis for building a hypothesis that work skills directly influence work productivity are proven. Thus, improving work skills can increase work productivity.

on The path coefficient of the direct effect of employability on work productivity = 0.49 and $t_{value} = 8.66$ 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 work productivity are proven.

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
<https://doi.org/10.21009/JOBBE.004.1.01>

Thus, improving employability can increase work productivity.

Path coefficient of direct influence of stress on work productivity = -0.14 and $t_{value} = -2.46$ greater than t_{table} ($n > 303$; α 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 influence of work skills on stress = -0.20 and $t_{value} = -4.42$ is greater than t_{table} ($n > 303$; α 5%, two tail) = 1.65, so there is a negative and significant direct effect stressful work skills. This means the theory and the results of previous studies that are used as a basis for building a hypothesis that work skills directly influence stress are proven. Thus, improvement in work skills can reduce stress.

The path coefficient of the direct effect of employability on stress = -0.33 and $t_{value} = -4.01$ is greater than t_{table} ($n > 303$; α 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 occupational safety on work productivity with stress mediation = 0.03 and $Z_{value} = 8.27$ is greater than Z_{table} ($n > 303$; α 5%, two tail) = 1.65, so there is no influence positive and significant direct safety of work on work productivity with stress mediation. This means that the theory and the results of previous studies that are used as the basis for building a hypothesis that occupational safety has an indirect effect on work productivity with stress mediation are proven. Thus, improvements to occupational safety that are supported by stress reduction can increase work productivity.

The path coefficient of the indirect effect of work skills on work productivity with stress mediation = 0.03 and $Z_{value} = 9.18$ is greater than Z_{table} ($n > 303$; α 5%, two tail) = 1.65, so there is no influence direct and significant work skills on work productivity with stress mediation. This means the theory and the results of previous studies that are used as a basis for building a hypothesis that work skills indirectly influence work productivity with stress mediation are proven. Thus, improvement of work skills supported by stress reduction can increase work productivity.

The path coefficient of the indirect effect of employability on work productivity with stress mediation = 0.04 and the $Z_{value} = 8.51$ is greater than Z_{table} ($n > 303$; α 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 (Y_1) is: $Y_1 = -0.20 * X_1 - 0.20 * X_2 - 0.33 * X_3$, Errorvar = 0.55, $R^2 = 0.45$. For occupational safety variables obtained structural coefficient = -0.20, work skills = -0.20 and employability = -0.33. The structural coefficient values of the three are negative, thus indicating that the effect of occupational safety, work skills, and employability on stress is negative, which means that improvements in occupational safety, work skills, and employability can reduce stress. Occupational safety, work skills, and employability variables are able to explain stress variable variations of 0.45 (45%).

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.

* <https://doi.org/10.21009/JOBBE.004.1.01>

The structural equation of work productivity (Y_2) is: $Y_2 = -0.14 * Y_2 + 0.18 * X_1 + 0.20 * X_2 + 0.49 * X_3$, Errorvar = 0.17, $R^2 = 0.83$. For work productivity the structural coefficient of stress is obtained = -0.14; occupational safety = 0.18; work skills = 0.20, and employability = 0.49. The value of the structural coefficient of occupational safety, work skills, and employability on work productivity is positive, thus indicating that improvements in occupational safety, work skills, and 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 occupational safety, work skills, employability, and stress in explaining the variations in the variable of high work productivity, that is equal to 0.83 (83%).

Discussion

The results of this study indicate that occupational safety has a positive and significant effect on work productivity. This finding can be understood because in practice occupational safety largely determines work productivity. Poor labor productivity, which among others is caused by work accidents, contributes greatly to the delay of many projects (Muhammad, et al., 2015). This shows the vitality of occupational safety as an effort to prevent any unsafe acts or conditions of a person that can result in accidents both caused by oneself and the work environment, which include: engineering, enforcement, education, empowerment, and engagement (Lutchman et al., 2012). When occupational safety is manifested in the five indicators in good condition, it can have an impact on increasing work productivity, namely employee efforts to produce a high ratio between the results achieved with the resources used, with indicators: work effectiveness, work efficiency, quality and standards (Lawlor, in Gomes, 2005; Robbins, in Droussiotis, 2004; Sinungan, 2009). The results of the research by Prayitno, Palupi and Khoiron (2015), Has and Susanty (2016), Shirali, Savari, Ahmadiangali, and Salehi (2016) also show that occupational safety has an effect on work productivity. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that occupational safety 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 work skills have a positive and significant effect on work productivity. Work skills are the skills or expertise to do a job that is only obtained in practice (Tolo et al., 2016), or in other words special knowledge, analytical skills in that specialization, and facilities in the use of tools and techniques from special disciplines (Sunindijo, 2015). Thus work skills are the skills to do a job in practice through special knowledge, analytical skills in their specialization, and facilities in the use of tools and techniques from special disciplines, which include indicators: communication, environmental change, technological development, interpersonal relations, managing work, phonetically (Fitriati & Hermiati, 2010). A company that can condition the work skills of its employees well through a number of indicators such as that will have an impact on increasing work productivity, namely the capacity of the workforce to produce a high ratio between the results achieved with the resources used, manifested in effectiveness and efficiency of work, quality and standards (Lawlor, in Gomes, 2005; Robbins, in Droussiotis, 2004; Sinungan, 2009). The results of Webber, Ser, and Goussak's research (2015 :) also prove that work skills affect work productivity. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that work skills have a positive and significant effect on work productivity by setting employment performance in the construc-

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.

* <https://doi.org/10.21009/JOBBE.004.1.01>

tion 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. Employability is the capability of individuals to maintain, maintain and develop competencies and qualifications that can increase labor market participation in a sustainable or career potential, which is reflected in specific work skills, proactive, adaptability, balance between organizational and personal interests (Peters and Lam, 2015) . If the employability of the construction service sector workforce can be well conditioned, then that is a 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, Vuurenb, and Damd (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 stress has a negative and significant effect on work productivity. Stress becomes important in a company, including a contracting company, because stress can be a reflection of high or low levels of productivity. This can be interpreted that when the stress level of employees in the company is very high, then what happens is low work productivity. This means that one factor that can affect work productivity is stress. Stress is an adjustment response as a manifestation of an individual's mental, physical, emotional, and spiritual inability to deal with threats from outside himself, which is reflected in subjective, behavioral, cognitive, physiological, and organizational (Gibson et al., 2012). If stress experienced by employees such as subjective, behavioral, cognitive, physiological, and organizational conditions can be well conditioned, it can have an impact on increasing work productivity, namely the capacity of the workforce to produce a high ratio between the results achieved with the resources used, which are seen in work effectiveness and efficiency, quality and standards (Lawlor, in Gomes, 2005; Robbins, in Droussiotis, 2004; Sinungan, 2009). The results of research by Petreanua, Iordachea, and Seracin (2013) and Donald, Taylor, and Johnson (2005) also prove that stress affects work productivity. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that stress 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 occupational safety has a negative and significant effect on stress. Stress is considered a major problem for workers in a dynamic, turbulent and highly competitive environment with an emphasis on controlling costs, reducing labor costs, and lower productivity. Stress must be distinguished from stressful experiences or situations, which are objects or events that cause stress (Bernardin & Russell, 2013). Potential stress exists when environmental conditions exceed or are not in accordance with the ability and resources of a person in their interactions so as to present a threat to him (McGrath, in Rue et al., 2016). Many factors can affect stress, one of which is occupational safety, which is a systematic system unity in the form of activities to plan, organize, direct, and control every effort to prevent any deeds or conditions of unsafe person that can result in accidents both caused by oneself and work environment, including indicators: engineering, enforcement, education, empowerment, and engagement (Lutchman et al, 2012). If occupational safety

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

can be well conditioned through several indicators such as that, it can affect the low level of stress, namely the response of adjustment as a manifestation of an individual's mental, physical, emotional, and spiritual inability to face external threats manifested in subjective, behavioral, cognitive, physiological, and organizational (Gibson et al., 2012). The results of Susetyo and Ratnaningsih's research (2016) also show that perceptions of K3 have a negative relationship with work stress. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that occupational safety has a negative and significant effect on stress with the setting of employment in the service sector construction at a construction service company in Jabodetabek.

The results of this study indicate that work skills have a negative and significant effect on stress. Stress can basically be experienced by everyone but the discussion of stress is more associated with the world of work and activities that are very important in human life. In fact, according to Mark, stress has become a world phenomenon that occurs in various forms in every workplace. In today's work life, employees generally work longer hours, as an increasing level of responsibility requires them to exert themselves even harder to meet rising expectations about their performance (Okeke, Echo, & Oboreh, 2016). Stress is a complex and dynamic concept. Unwanted levels of stress affect overall organizational performance. Therefore, to get work done effectively, the organization or manager must manage stress levels correctly. To achieve this organizational goal, all factors that influence stress must be correctly identified and measured (Kamalakumati & Ambika, in Okeke et al., 2016). One of the factors that can influence it is work skills, namely the ability to do a job in practice through special knowledge, analytical skills in specialization, and facilities in the use of tools and techniques from special disciplines, which are reflected through communication, sensitive to environmental changes, fostering relationships interpersonal, can manage work, can build networks (Fitriati & Hermiati, 2010). If the work skills of the construction service sector workforce can be well conditioned through several indicators that affect it as such, it will affect the reduction in stress levels, namely the adjustment response as a manifestation of the mental, physical, emotional, and spiritual inability of the person to face external threats, with indicators: subjective, behavioral, cognitive, physiological, and organizational (Gibson et al., 2012). The results of Florentine and Prabowo's (2014) research also showed the effect of work skills on stress. Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that work skills have a negative and significant effect on stress by setting employment performance of 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 work productivity. Employability becomes important in a company, because employability reflects an individual's capability to maintain, maintain and develop competencies and qualifications that can increase labor market participation in a sustainable or career potential ,, which is reflected in specific work skills, proactive, adaptability, balance between organizational and personal interests (Peters & Lam, 2015). A construction service sector worker who has a good employability in accordance with the requirements of the company's desires, then it will affect the low 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, behavioral, cognitive, physiological, and organizational (Gibson et al., 2012). The results of Viotti Sara, Guidetti, Gloria, Loera, Barbara, Martini, Mara, Sottimano, Ilaria, Converso, Daniela (2017) also prove the effect of employability on stress. Thus,

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

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 occupational safety has a positive and significant effect on work productivity with stress mediation. This on the one hand shows that occupational safety has an effect on stress and on the other hand stress has an effect on work productivity. This condition causes the indirect effect of occupational safety on work productivity by stress mediation. That is, efforts to prevent any act or condition of a person who is not safe that can result in accidents both caused by oneself and the work environment as measured by indicators: engineering, enforcement, education, empowerment and involvement (Lutchman et al., 2012) can be conditioned by well, then it will have an impact on reducing stress levels and then having implications on increasing work productivity. The results of previous studies also prove that occupational safety affects work productivity (Prayitno, Palupib, & Khoironc, 2015; Has, & Susanty, 2016; Shirali, Savari, Ahmadiangali, & Salehi, 2016), stress influences work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), and perceptions of OHS have a negative relationship with work stress (Susetyo & Ratnaningsih, 2016). Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that occupational safety has an effect on work productivity by mediating stress with the setting of work in the construction service sector in construction service companies in Jabodetabek.

The results of this study indicate that work skills have a positive and significant effect on work productivity with stress mediation. This on the one hand shows work skills affect stress and on the other hand stress affects work productivity. This causes the indirect effect of work skills on work productivity by stress mediation. That is, when work skills as the ability to do a job in practice through special knowledge, analytical skills in specialization, and facilities in the use of tools and techniques from special disciplines, which are reflected through communication, sensitive to environmental changes, fostering interpersonal relationships, can regulate work (Fitriati & Hermiati, 2010), conditioned well then it will have an impact on reducing stress levels and then having implications on increasing work productivity. The results of previous studies also show that work skills affect work productivity (Webber, Ser, & Goussak, 2015), stress affects work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), and work skills against stress (Florentine & Prabowo, 2014). Thus, the findings of this study are appropriate, supporting and confirming the results of previous studies that work skills influence work productivity by mediating stress with the setting of work in 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 employability affects stress and on the other hand 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, maintain and develop competencies and qualifications that can increase labor market participation in a sustainable or career potential, which is reflected in specific work skills, proactive, adaptability, balance between organizational and personal interests (Peters & Lam, 2015) can be conditioned well, then it will have an impact on reducing stress levels and then having implications on increasing work productivity. The results of previous studies also show that employability affects work productivity (Ybemaa,

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

Vuurenb, & Damd, 2017), stress affects work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), and employability against stress (Viotti Sara, Guidetti, Gloria, Loera, Barbara, Martini, Mara, Sottimano, Ilaria, Converso, & Daniela, 2017). Thus, the findings of this study are appropriate, support and confirm the results of previous studies that employability affects work productivity by stress mediation with the setting of employment services in the construction service sector in construction service companies in Jabodetabek.

Overall results of this study indicate that occupational safety, work skills and employability affect work productivity with stress mediation. These findings are consistent and consistent and confirm the results of previous studies that occupational safety affects work productivity (Prayitno, Palupib, & Khoironc, 2015); Has, & Susanty, 2016); Shirali, Savari, Ahmadiangali, & Salehi, 2016), work skills affect work productivity (Webber, Ser, & Goussak, 2015), employability affects work productivity (Ybemaa, Vuurenb, & Damd, 2017), stress influences work productivity (Petreanua, Iordachea, & Seracin, 2013; Donald, Taylor, & Johnson, 2005), occupational safety has an effect on stress (Susetyo & Ratnaningsih, 2016), work skills have an effect on stress (Florentine & Prabowo, 2014), and employability has an effect on stress (Viotti Sara, Guidetti, Gloria, Loera, Barbara, Martini, Mara, Sottimano, Ilaria, Converso, & Daniela, 2017). However, compared to the results of previous studies, the findings of this study have a number of differences that represent the novelty element (novelty) of this study. First, the model. The research model on the effect of occupational safety, work skills and 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 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 powers, the results of this study have novelty especially models of the effect of occupational safety, work skills and employability on work productivity with stress mediation which theoretically can enrich research and literature in the field of management, especially human resource management, and practically can be relied upon as a model for improving work productivity through improving occupational safety, work skills, employability and reducing stress.

CONCLUSIONS

Occupational safety, work skills, employability and stress have a direct effect on work productivity. This indicates that improvements in occupational safety, work skills and employability and good stress management can increase work productivity. Occupational safety, work skills and employability directly influence stress. This indicates that improvements in occupational safety, work skills and employability can reduce stress.

Occupational safety, work skills and employability have an indirect effect on work productivity with stress mediation. This indicates that occupational safety, work skills and employability with mediated stress reduction can encourage increased work productivity. That means that improvements in occupational safety, work skills and employability supported by reduced stress can increase work productivity.

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

REFERENCES

- Al Kautsar, I., Swasto, S. B., & Al Musadieq, M. (2013). Pengaruh keselamatan dan kesehatan kerja terhadap kinerja karyawan (studi pada karyawan tetap bagian produksi PR. Sejahtera Abadi Malang). *Jurnal Administrasi Bisnis (JAB)*, 6, 2, 1-9.
- Angelescu, I. G., Edwards, D., Seifritz, E., & Kasper, S. (2018). Stress management and the role of rhodiola rosea: a review. *International Journal of Psychiatry in Clinical Practice*, 1-12.
- Bashir, H. A., Alzebeid, K., & Al Riyami, A. M. A. (2014). Factor analysis of obstacles restraining productivity improvement programs in manufacturing enterprises in Oman. *Hindawi Publishing Corporation Journal of Industrial Engineering*, Article ID 195018, 7, 1-8.
- Bernardin, H. J., & Russel, J. E. A. (2013). *Human resource management*. New York: McGraw-Hill Irwin, Education.
- Cherny, K. B., & Kartikasari, D. (2017). Pengaruh stres dan motivasi terhadap produktivitas kerja karyawan pada pt epon Batam,” *Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis*, 5, 1, 80-90.
- Colquit, J. A., LePine, J. A., & Wesson, M. J. (2009). *Organizational behavior: improving performance and commitment in the workplace*. New York: McGraw-Hill-Irwin.
- De Silva, R. D., & Thilakasiri, K. K. (2014). Analysis of stress on employees' productivity: a study based on air force officers in Sri Lanka. *Kelaniya Journal of Human Resource Management*, 09, 01-January & 02-July, 117-137.
- Donald, I., Taylor, P., & Johnson, S. (2005). Work environments, stress, and productivity: an examination using ASSET. *International Journal of Stress Management*, 12, 4, 409-423.
- Droussiotis, A. (2004). The profile of high performing employees in cyprus. *The Journal of Business in Developing Nations*, 8, 40-41.
- Feld, L. P., & Larsen, C. (2012). *Undeclared work, deterrence and social norms: the case of Germany*. Freiburg: Rockwoll Foundation Research Unit, Springer.
- Fitriati, R., & Hermiati, T. (2010). Entrepreneurial skills and characteristics analysis on the graduates of the department of administrative sciences. *Journal of Administrative Science and Organization FISIP Universitas Indonesia*, 17, 3, 262-275.
- Florentine, & Prabowo, S. (2014). Hubungan antara skill mismatch dengan stres kerja pada karyawan PT. X. *Jurnal Psikodimensia*, 13, 2, 1.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (2012). *Organization: behavior, structure, processes*. Texas: Business Publication, Inc.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (2009). *Perilaku organisasi, struktur dan proses, alih bahasa Djarkasih*. Jakarta: Penerbit Erlangga.
- Giorgi, G., Shoss, M. K., & Leon-Perez, J. M. (2015). Going beyond workplace stressors: economic crisis and perceived employability in relation to psychological distress and job dissatisfaction. *International Journal of Stress Management*, 22, 2, 137-158.
- Gomes, F. C. (2005). *Manajemen sumber daya manusia*. Yogyakarta: Andi.
- Guilbert, Laure, Bernaud, J. L., Gouvernet, B., & Je'ro'me Rossier. (2015). employability: review and research prospects. *Int J Educ Vocat Guidance*, 1-21.
- Has, M. N., & Susanty, A. I. (2016). Health and safety management influence on employees' productivity. *Actual Problems of Economics*, 3, 177, 300-307.

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.

* <https://doi.org/10.21009/JOBBE.004.1.01>

- Hendriani, S., & Nulhaqim, S. A. (2008). Pengaruh pelatihan dan pembinaan dalam menumbuhkan jiwa wirausaha mitra binaan PT. (Persero) Pelabuhan Indonesia I Cabang Dumai. *Jurnal Kependudukan Padjadjaran*, 10, 2, 152-168.
- Janjua, N. U. S. (2016). Impact of personality type on job productivity. *Journal of Hotel & Business Management*, 5, 1, 1-9.
- Kerzner, H. (2009). *Project management: a system approach to planning, scheduling and controlling*, ninth edition. New Jersey: John and Wiley, Inc.
- Lutchman, C., Rohanie, & Ghanem, W. (2012). *Safety management a comprehensive approach to developing a sustainable system*. Boca Raton: CRC Press Taylor & Francis Group
- Mahamid, I., Al-Ghonamy, A., & Aichouni, M. (2013). Major factors influencing employee productivity in the ksa public construction projects. *International Journal of Civil & Environmental Engineering (IJCEE-IJENS)*, 14, 01, 16-20.
- Mawanza, W. (2017). The effects of stress on employee productivity: a perspective of zimbabwe's socio-economic dynamics of 2016. *Journal of Economics and Behavioral Studies*, 9, 2, 22-32.
- Muhammada, N. Z., Sania, A., Muhammada, A., Balubaidb, S., Itumac, E. E., & Suleimand, J. H. (2015). Evaluation of factors affecting labour productivity in construction industry: a case study. *Jurnal Teknologi (Sciences and Engineering)*, 77, 12, 87-91.
- Naqvi, S. M. H., Khan, M. A., Kant, A. Q., & Khan, S. N. (2013). Job stress and employees' productivity: case of Azad Kashmir public health sector. *Interdisciplinary Journal of Contemporary Research In Business Copy Right © Institute of Interdisciplinary Business Research*, 5, 3, 525, July, 524-542.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2015). *Human resource management; gaining a competitive advantage 9e*. New York: McGraw Hill Education.
- Paramita, C. C. P., & Wijayanto, A. (2012). Pengaruh keselamatan dan kesehatan kerja terhadap prestasi kerja karyawan pada PT. PLN (PERSERO) APJ Semarang. *Jurnal Administrasi Bisnis*, Vol. 1 No.1, 1-11.
- Peters, P., & Lam, W. (2015). Can employability do the trick? revealing paradoxical tensions and responses in the process of adopting innovative employability enhancing policies and practices in organizations. *Zeitschrift für Personalforschung*, 29, (3-4), 235-258.
- Petreanua, V., Iordachea, R., & Seracin, M. (2013). Assessment of work stress influence on work productivity in romanian companies. *Procedia Social and Behavioral Sciences*, 92, 420-425.
- Prayitno, H., Palupi, R. A., & Khoiron. (2015). The effect of occupational safety and health on work productivity of field workers of access network maintenance at PT. Telkom kandel Jember. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 22, 1, 257-262.
- Robbins, S. P., & Judge, T. A. (2015). *Organizational behavior*, sixteenth edition. London: Pearson Education Limited.
- Rothwell, A., & Arnold, J. (2007). Self-perceived employability: development and validation of a scale. *Emerald International Personnel Review*, 36, 1, 23-41.
- Rue, L. W., Ibrahim, N. A., & Byars, L. L. (2016). *Human resource management*, eleventh edition. New York: McGraw-Hill Education.
- Sedarmayanti. (2009). *Sumber daya manusia dan produktivitas kerja, cetakan ketiga*. Bandung: Mandar Maju.
-
-

* The Effect Of Occupational Safety, Work Skills, And Employability On Stress And Implications On The Productivity Of Employment Construction Service Workers.
* <https://doi.org/10.21009/JOBBE.004.1.01>

- Shirali, G., Savari, R., Ahmadiangali, K., & Salehi, V. (2016). The effect of safety costs on productivity and quality: a case study of five steel companies in Ahvaz. *Jundishapur J Health Sci*, 9, 2, 1-6. doi: 10.17795/jjhs-38692.
- Sinungan, M. (2009). *Produktivitas: apa dan bagaimana.*, edisi kedua. Jakarta: Bumi Aksara.
- Suma'mur. (2010). *Hiegiene perusahaan dan keselamatan kerja*. Jakarta: CV. Sagung Seto.
- Sunindijo, R. Y. S. (2015). Project manager skills for improving project performance. *International Journal of Business Performance Management*, 16, 1, 1-34.
- Susetyo, R. I., & Ratnaningsih, I. Z. (2016). Persepsi terhadap keselamatan dan kesehatan kerja dan stres kerja pada karyawan bagian produksi PT. X di Bekasi. *Jurnal Empati*, 5, 1, 55-59.
- Terry, G. R., & Rue, L. W. (2008). *Dasar-dasar manajemen*. Jakarta: Bumi Aksara.
- Tolo, I., Sepang, J. L., & Dotulong, L. O. H. (2016). Pengaruh keterampilan kerja disiplin kerja dan lingkungan kerja terhadap kinerja pegawai pada dinas pemuda dan olahraga (dispora) Manado. *Jurnal EMBA*, 4, 4, 256-267.
- Viotti, Sara, Guidetti, Gloria, Loera, Barbara, Martini, Mara, Sottimano, Ilaria, Converso, Daniela. (2017). Stress, work ability, and an aging workforce: a study among women aged 50 and over. *International Journal of Stress Management*, 24, 1, 98-121.
- Wardana, R., Al Musadieq, M., & Nurtjahjono, G. E. (2014). Pengaruh keselamatan dan kesehatan kerja terhadap kepuasan kerja dan motivasi kerja (studi pada karyawan PT. PLN (Persero) area Malang). *Jurnal Administrasi Bisnis (JAB)*, 15, 1, 1-10.
- Webber, J. K., Ser, E., & Goussak, G. W. (2015). Work habits as positive and negative influence on workplace productivity. *Global Journal of Business Research*, 9, 1, 39-48, ISSN: 1931-0277 (print) ISSN: 2157-0191 (online).
- Widodo. (2015). *Manajemen pengembangan sumber daya manusia*. Yogyakarta: Pustaka Pelajar
- Widodo. (2018). *Metodologi penelitian populer dan praktis*. Jakarta: Rajagrafindo Press.
- Widiastuti, S., & Muktiani, N. R. (2010). Peningkatan motivasi dan keterampilan menggiring bola dalam pembelajaran sepak bola melalui kucing tikus pada siswa kelas 4 SD Glagahombo 2 Tempel. *Jurnal Pendidikan Jasmani Indonesia*, 1, 49-50.
- Ybemaa, J. F., Vuurenb, T. v., & Damd, K. v. (2017). HR practices for enhancing sustainable employability: implementation, use, and outcomes. *The International Journal of Human Resource Management*, doi: 10.1080/09585192.2017.1387865, ISSN: 0958-5192 (Print) 1466-4399 (Online) Journal homepage: <http://www.tandfonline.com/loi/rijh20>.