

Effect of Education Level and Job Placement on Employee Work Productivity at Regional Drinking Water Company Tirta Bhagasasi Rawa Lumbu Bekasi Branch

Meidiana Eka Safira¹, Ria Marginingsih²

^{1,2} Islamic University "45" Bekasi, Indonesia

*Corresponding email: ria.marginingsih@gmail.com

Article History

Received: June 9, 2022 Revised: July 15, 2022 Accepted: August 30, 2022

Abstract

The purpose of the study was to determine the Effect of Education Level and Job Placement on Employee Work Productivity at the Tirta Bhagasasi Regional Drinking Water Company (PDAM) Rawa Lumbu Bekasi Branch. This research uses quantitative methods. The sampling technique used is a saturated sampling technique (census). The sample used was 42 people. data collection techniques by conducting interviews, observations, and dissemination of questionnaires. For data analysis using PLS (Partial Least Square), PLS is one of the variant-based SEM statistical methods designed to solve multiple regressions when there are specific problems with the calculated data using the SmartPLS 3.3.3 program.

Keywords: Education Level, Work Placement, Employee Work Productivity.

JEL Classification: L21, L78, M1, M2.

Type of paper: Research Paper

DOI:

10.46306/bbijbm.v2i2.50

Web:

<http://bbijbm.lppmbinabangsa.ac.id/index.php/home>

Citation:

Safira, M. E. . (2022). Effect of Education Level and Job Placement on Employee Work Productivity at Regional Drinking Water Company Tirta Bhagasasi Rawa Lumbu Bekasi Branch. BINA BANGSA INTERNATIONAL JOURNAL OF BUSINESS AND MANAGEMENT, 2(1), 188-198. <https://doi.org/10.46306/bbijbm.v2i1.50>

I. Introduction

One of the factors affecting the success rate of an enterprise is the work productivity of its employees. The work productivity of employees is the result of work

in quality and quantity achieved by employees in carrying out their duties in accordance with the responsibilities assigned to them.

Therefore, employees who have a high level of work productivity are needed which can be seen from the level of education and placement of their job position positions so that production can be achieved in accordance with the target. (Sinungan, 2017:12) productivity is a measure of the quality of work, the quantity of work and the timeliness of the work that has been done, taking into account the cost of the resources used to do the work.

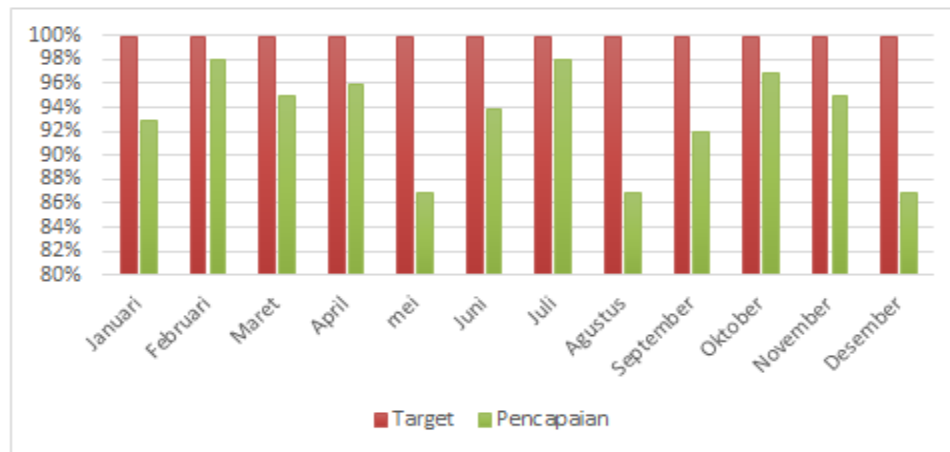
The results of *interviews with the Human Resource Department* (HRD) and observations made directly at the company, there are problems with employee work productivity, it can be seen from the production results of PDAM is now able to serve clean water needs for 9,662 customers. Of the 260 liters per second produced, only about 200 liters per second have been sold. That is, there is still an excess or over capacity of about 60 liters per second. This excess capacity, still able to serve new customers of about 5,000 customers.

It's just that what happened at this time, because of the limited transmission network, so the production capacity has not sold all of them. It became the big task of PDAM how to build a new pipanization network to serve about 5,000 new customers with the occurrence of over capacity of 60 liters per second. From the results of the data obtained by a company's progress, its work productivity can be measured, when a company is able to achieve the targets it has set, including targets and the achievement of production realization that it expects.

PDAM Tirta Bhagasasi has set targets and realized the achievement of production to be achieved every month. It can be seen from the target diagram and realization based on employees of the IPA section (Processing Plant Air) in 2021.

Figure 1. 1

Target Data and Realization of Production Achievement of PDAM Tirta Bhagasasi Rawa Lumbu Branch



Data target and realization of production every month for one year experienced instability. The highest realization occurred in February and August as much as 98% where this number was almost perfect like the target given by the company, while in May, August and December the realization of production was at the lowest level, which was at 87%, which means that the difference with the company's target is quite far, namely 13% in 2021.

Therefore, there are several factors to support the increase in employee work productivity apart from bound indicators, namely there are factors of education level as well as the placement of employees. Employees are assets that play an important role in the company, thus it is necessary to pay attention to the background of their level of education because the level of education that a person has will affect his mindset, attitudes and behavior and it is believed that highly educated employees are higher in productivity as well as their productivity

The importance of education is not only felt by employees, but also an advantage for a company. The education that a person has will also affect his work productivity, because with education a person has the capital to do productivity in a job. According to (Devitasari, 2016: 56) said that education has an important measurement and role in increasing labor productivity, because increasing labor productivity that relies on education basically aims to improve human labor capabilities. Measurement of education level (Tirtahardja, 2016: 53) using indicators of education level, suitability of majors, competencies. The level of education and the suitability of education shows that the longer / higher the level of education that it completes, it will have great potential for employee performance as well in terms of productivity.

According to G.R Terry and Hasibuan (2017:2), placement must be based on a predetermined *job description and job specification* and guided by the principle of "Placement of the right people in the right place and placement of the right person in the right position" or "*The right man in the right place and the right man behind the right job.*" The principle of proper placement must be implemented consequently so that employees can work according to their respective expertise. This will lead a company to optimal work results because there is a positive correlation between employee placement and increased work productivity.

The right employee placement process is not enough to support employee performance, but requires experience to support the work. Work experience is the level of knowledge as well as skills of a person that can be measured from the length of a person's service. So that the longer a person works, the more experience he has for his work. Therefore, the factors that affect a person's productivity at work are length of work (Pamungkas, 2017: 225). The longer the working life of a laborer, the skills and ability to do work should increase

II. Material and Method

The data analysis technique in the study used was the *Structural Eqation Modelling (SEM)* data analysis method which used *SmartPLS 3.3.3 software* which was run with computer media. Analisis PLS-SEM usually consists of two sub-models, namely measurements models or often called outer models and structural models (structural models) or often called inner models. The measurement model shows how manifest variables or observed variables present the measured latent variables. Meanwhile, structural models show the strength of estimation between latent or construct variables (Ghozali and Latan, 2020: 7).

Evaluation of the measurement model (outer model) is used to test validity and reliability. Outer model is how each indicator block relates to a latent variable. The measurement model describes the relationship between a variable and the measurement item that measures it. The equations for the reflective model are:

$$X = \Lambda_x \xi + \delta \quad Y = \Lambda_y \eta + \varepsilon$$

Where : X and Y = manifest variables/indicators for exogenous (ξ) and endogenous (η) latent constructs

Λ_x and Λ_y = loading matrices describing simple regression coefficients connecting latent variables and their indicators.

ε_x and γ = residual measurement error (measurement model). ε

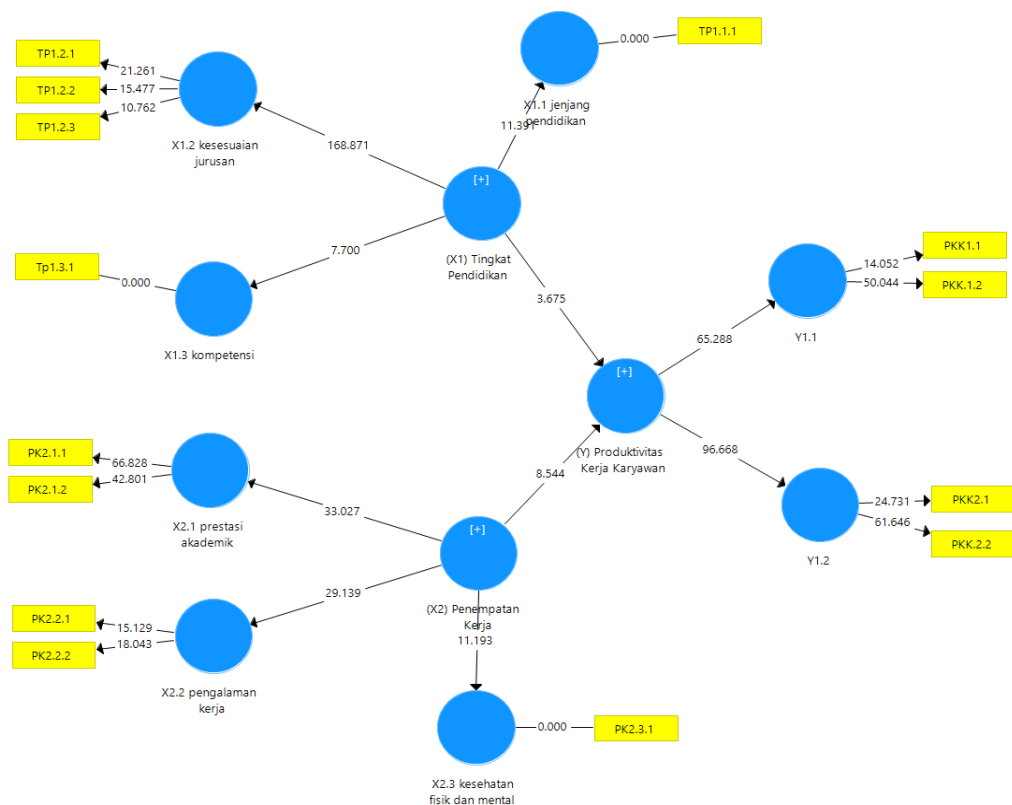
Inner model analysis is also known as structural analysis of models, which aims to predict relationships between latent variables (Ghozali, 2015: 73). According to Haryono (2017: 67) the first step is to evaluate the structural model by looking at the significance of the relationship between constructs/variables. This can be seen from the path coefficient that describes the magnitude of the value of the relationship between the constructs. Structural models can be evaluated by using *R-squares* for dependent constructs.

In assessing the signification of the influence between variables, it is necessary to *carry out a bootstrapping* procedure. The *bootstrapping* procedure uses the entire original sample to resample it again. In the bootstrapping resampling method, the significance value used (*two-tailed*) can be seen from the T-statistical value and the probability value (P-Values). For hypothesis testing, namely by using a statistical value, for an alpha value of 5% or (0.05) the statistical t value used is 1. So the criteria for acceptance and rejection of the hypothesis are that H_a is accepted and H_0 is rejected when the t-statistic >1 . To reject and accept the hypothesis using probability then H_a is accepted if the value of $p < 0.05$

III. Results and Discussion

In hypothesis testing, the results of correlations between constructs are measured by looking at *path coefficients* and their significance levels which are then equated with the research hypothesis contained in the previous chapter. The level of significance used in this study was 5% = 0.05. After data processing using *SmartPLS 3.3.3* with the initial stages of calculating the PLS *algorithm*, the next step is the bootstrapping of the model.

Figure 1.1 Boastrapping Analysis Results



To assess the significance of the influence of standards between variables, a *bootstrapping* procedure is performed. The *bootstrapping* procedure uses the entire original sample to resample it again. To find out whether a hypothesis is accepted or rejected can be done by paying attention to the significance values between constructs, t-statistics and p-values. In the bootstrapping resampling method in this study, the hypothesis is accepted if the significance value used (two tailed) t-values is greater than 1.697 and or the p-values value is less than 0.05, then H_a is accepted and H_o is rejected and vice versa. Statistical test results to test the significance of latent variable indicators on the second order construct were obtained based on data processing by looking at *path coefficients*.

Table 1.1
Path Coefficient Measurement significance (T-Statistic) Second Order

					Confidence Interval			
Hypothes	Std.Bet a	Sample Mean (M)	Standad Deviatin (STDE)	T Statistics (O/STD) T-Value	Bias	2.5%	97.5%	P- Valu e
(X1 -> Y)	0.305	0.310	0.083	3.667	0.005	0.112	0.452	0.000

X1 -> X1.1	0.786	0.784	0.067	11.795	-0.002	0.597	0.884	0.000
X1 -> X1.2	0.972	0.975	0.006	161.718	0.003	0.957	0.982	0.000
X1 -> X1.3	0.743	0.732	0.110	6.763	-0.010	0.445	0.883	0.000
(X2 -> Y)	0.688	0.683	0.080	8.571	-0.005	0.534	0.853	0.000
X2-> X2.1	0.920	0.921	0.029	32.205	0.001	0.845	0.960	0.000
X2 -> X2.2	0.910	0.911	0.003	27.753	0.001	0.817	0.958	0.000
X2 -> X2.3	0.791	0.783	0.071	11.194	-0.009	0.604	0.886	0.000
Y -> Y1.1	0.948	0.947	0.015	64.224	-0.000	0.908	0.967	0.000
Y -> Y1.2	0.955	0.956	0.010	96.324	0.001	0.926	0.969	0.000

The *path coefficient* results showed that all items were significant to the construct with a t-statistical value > 1.697 and a p-value < 0.05 . Thus it can be said that indicators X1.1, X1.2, and X1.3 are the constituents of the Education Level (TP) variable, indicators X2.1, X2.2, and X2.3 are the constructs that form the Work Placement (PK) variable and the indicators Y1.1 and Y1.2 are the constructs that form the Employee Work Productivity (PKK) variable.

The number of the coefficient of education level (β_1) 0.305 with a significance level of 0.000 (smaller than $\alpha = 0.05$) then it can be said that it partially affects the work productivity of employees. The number of the coefficient of job placement (β_2) 0.688 with a significance level of 0.000 (smaller than $\alpha = 0.05$) then it can be said that job placement has a partial effect on employee work productivity.

Based on the results of the data processing above, the education level variable obtained a t-count value of 3,667 greater than t table 1,697 ($3,667 > 1,697$) with a significance of 0,000 less than 0.05 ($0,000 < 0.05$), then H_0 was rejected and H_a was accepted. Thus hypothesis one is acceptable, namely that the level of education has a significant positive effect on employee work productivity. And the job placement variable obtained a value of t - a count of 8,571 greater than t table 1,697 ($8,571 > 1,697$) with a significance figure of 0.000 less than 0.05 ($0.000 < 0.05$), then H_0 was rejected and H_a was accepted. Thus, hypothesis two can be accepted, namely that job placement has a significant positive effect on the work productivity of employees of PDAM Tirta Bhagasasi Rawa Lumbu Bekasi Branch.

The results of the hypothesis test show together that the level of education has a positive and significant effect on employee work productivity, which means that if the variables of education level and work placement increase, the results of employee work

productivity also increase. The results of this study found that the level of education is very important for companies to determine the acceptance of employees. Employees who have a high level of education will be more able to produce high productivity as well. while in the variable of job placement to increase employee work productivity with this appropriate and appropriate placement, work passion, work mentality and work performance will achieve optimal results and even employee creativity and initiatives will develop.

IV. Conclusion

Based on the results of research and discussion on the effect of education levels and job placement on the work productivity of employees of the Tirta Bhagasasi Regional Drinking Water Company (PDAM) Rawa Lumbu Bekasi Branch, as described in the previous chapter, the conclusions of this study were obtained as follows:

Partially, the variable level of education has a positive and significant influence on the work productivity of employees, namely when the level of education is high, the work productivity of the employees will be high and vice versa if the level of education is low, the work productivity of the employees will also be low, which explains that the education that a person has will also affect his work productivity, because with education a person has the capital to do productivity in in a job. When the level of education must be increased by increasing the criteria for education levels, the suitability of majors and increasing competition in employees so that the work productivity of their employees is achieved.

Partially, the job placement variable has a positive and significant influence on employee work productivity, namely if the work placement is placed properly, the employee's work productivity will be good and vice versa if the job placement is bad, the productivity will be poor, therefore explaining that the job placement must be based on job description and job specification which has been determined and guided by the principle of "Placement of the right people in the right place and placement of the right person in the right position" or "The right man in the right place and the right man behind the right job." The principle of proper placement must be implemented consequently so that employees can work according to their respective expertise in order to get optimal work results for the company

References

Anita Ermawati . (2018). Pengaruh Brand Image dan Brand Trust terhadap Purchase Decision Produk United. *AGORA, Volume. 6, No. 2, , 7.*

- Aprilia Andini, D. D. (2020). Analisis Pengaruh Kualitas Produk Dan Citra Merek Terhadap Keputusan Pembelian Dengan Word Of Mouth Sebagai Variabel Intervening. *Sekolah Tinggi Ilmu Ekonomi Indonesia*, Hal. 21.
- Ardiansyah, d. (2014). “Pengaruh Tingkat Pendidikan dan Pengalaman Kerja Terhadap Prestasi Kerja Karyawan Pada PT. Adira Quantum Multifinance Cabang Makasar”. *E-Library STIE YPBUP Bongaya*, Hal. 1-11.
- Ardika Sulaeman. (2014). “Pengaruh Upah dan Pengalaman Kerja Terhadap Produktivitas Karyawan Kerajinan Ukiran Kabupaten Subang”. *Trikonomika*, Vol. 13 No. 1, Hal. 1-15.
- Asri Laksmi Riani. (2013). Manajemen Sumber Daya Manusia Masa Kini. In *Edisi Pertama*. Yogyakarta.: Graha Ilmu.
- Cokki, T. (2019, febuari). Pengaruh Ekuitas Merek Terhadap Preferensi Rasa Kopi Starbucks. *Jurnal Manajerial dan Kewirausahaan*, Volume I, Hal 10.
- Edi Saputra Pakpahan. (2014). “Pengaruh Pendidikan dan Pelatihan Terhadap Kinerja Pegawai pada Badan Kepegawaian Daerah Kota Malang” . *Jurnal Administrasi Publik (JAP)*, Volume. 2 No. 1,, Hal. 116-121.
- Faisa, H. (2013.). “Pengaruh Tingkat Pendidikan, Kesehatan Terhadap Produktivitas dan Jumlah Penduduk Miskin di Provinsi Kalimantan Barat” . *Universitas Tanjung Pura Pontianak*, , Hal. 1-15.
- Fitri Apriani , Muhammad Izman Herdiansyah, Diana. (2019, febuari 1). Perilaku Pengguna terhadap Sistem Guru Pembelajar Online Di Sekolah Menengah Pertama Negeri Kota Palembang. *Jurnal Bina Komputer*, Volume. 1, No, 21.
- Gangga Anuraga,, Edy Sulistiyawan,Siti Munadhiroh. (2017, Oktober 21). Structural Equation Modeling-Partial Least Square untuk Pemodelan Indeks Pembangunan Kesehatan Masyarakat (IPKM) di Jawa Timur. *Program Studi Statistika, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas PGRI Adi,Hal 7*.
- Ilham, I. N. (2020, November). Pengaruh Displin Kerja dan Kompensasi terhadap Kinerja Pegawai Dengan Dimediasi Variabel Motivasi. *Magister Manajemen Sumber Daya Manusia, Universitas Terbuka*, 9(4), Hal 11.
- Kadek Wina Martini, I. G. (2018, Maret). Tingkat Pendidikan, Pelatihan dan Produktivitas Pegawai Rumah Sakit Umum Daerah (RSUD) Kabupaten Buleleng Unit Kerja Bagian Sumber Daya Manusia (SDM). *Widya Amerta Jurnal Manajemen Fak. Ekonomi*, Volume.5 No 1, 12.
- Khairunisa Nur Baiti, Khairunisa Nur Baiti,Eny Kustiyah;. (2020, febuari 01). Produktivitas Kerja Karyawan Ditinjau Dari Motivasi, Dispilin Kerja pada PT Iskandar Indah Printing Textile Surakarta. *Fakultas Ekonomi Manajemen, Universitas Islam Batik Surakarta*, Volume 04, Hal 19.
- Maria Asti Adhanari. (2012.). “Pengaruh Tingkat Pendidikan Terhadap Produktivitas Kerja Karyawan Bagian Produksi pada Maharani Handicraft di Kabupaten Bantul . *Universitas Negri Semarang*., Hal. 1-25.

- Maulana, Mochammad Rizal. (2020). *Pengaruh Tingkat Pendidikan, Lingkunga Kerja, dan Budaya Organisasi terhadap Kinerja Karyawan PDAM Tirta Sidoarjo Cabang Sepanjang*. Surabaya: Diploma thesis, STIE MAHARDHIKA.
- Nor Azilah Husin, Amirul Syafiq Mohd Ghazali, Salina Rasli. (2021, Desember,). Smartpls Approach In Investigating The Determinants Of Unemployment Criss Among Gen Y *International Journal of Accounting, Finance and Business (IJAFB)*, 6(38), pp.172-182.
- Ramon Uribe-Echeberria, Juan Ignacio Igartua, Rafael Lizarralde. (2019, November 16). Implementing Open Innovation in Research and Technology Organisations: Approaches and Impact. *Journal of Open Innovation: Technology, Market, and Complexity*, Hal 25.
- Ria Ana Sincia, A. I. (2021, Agustus 4-5). Mengukur Source Credibility Beauty Vlogger Terhadap Sikap Konsumen (Studi Kasus Video Review Produk Kecantikan di Youtube). *Prosiding The 12th Industrial Research Workshop and National Seminar*, Hal 6.
- Saleh, A. R. (2018). Pengaruh Disiplin Kerja, Motivasi Kerja, Etos Kerja dan Lingkungan Kerja terhadap Produktivitas Kerja KaryawanBagian Produksi di PT. Inko Java Semarang. *Among Makarti Volume.11 No.21, Juli , 23*.
- Sari, W. M. (2, Juni 2018). the effect of recruitment and work placement. *Journal of Economic, Business and Accounting (COSTING)*.
- Satrio Wibowo,Maliah,Aprizal Rosadian,Erdiansyah. (2021, Juni). Pengaruh Proses Rekrutmen dan Penempatan Kerja Terhadap Prestasi Kerja Pegawai PT Kereta Api Indonesia (KAI) Persero Divre III Plaju Palembang. *Jurnal Manivestasi,, Vol. 3 No.1*, 19.
- Setyawan, I. (2021, Mei). Apakah Komitmen Organisasi dan Keterlibatan Kerja Merupakan Prediktor Bagi Kinerja Individu pada Organisasi Nirlaba? *Jurnal Bisnis,Logistik dan Suplly Chain*, volume 1- No 1, 11.
- Shehnaz Tehseen, Zuhaib Hassan Qureshi, Fatemahohara, Ramayah.(2019, October). *Journal of Sustainability Science and Management*, 14 number 5, 84-114.
- Sofyan Yamin. Heri Kurniawan. (2011). *Generasi Baru Mengolah Data Penelitian dengan Partial Least Square Path Modeling*. Jakarta: Salemba Infotek.
- Sukmana, G. M. ((2015)). “Pengaruh Tingkat Pendidikan, Pengalaman Kerja dan Pemberian Intensif Kerja terhadap Produktivitas Tenaga Kerja (Kasus pada CV.Yugatama Prima Mandiri Kabuoaten Jember)”. *Jurnal Ilmiah. Malang*.
- Suyadi Prawirosentono. ((2008),). Kebijakan Produktivitas kerja Karyawan. , *Yogyakarta: BPFE*.
- Tijow, G. (2021). Pengaruh Rekrutmen dan Penempatan Kerja Terhadap Kinerja Karyawan. *Jurusan Ilmu Administrasi*.
- Waristi, T. R. (n.d.). Pengaruh Tingkat Pendidikan dan Pengalaman Kerja terhadap Kinerja Karyawan pada Departemen Filling PT. Glico Wings Indonesia. *Prodi Manajemen, Universitas Pelita Bangsa, Hal 15*.

- Wijaya & Suana. (2014.). Pengaruh Penempatan dan Pengalaman Terhadap Kepuasan dan Kinerja Karyawan. . *Universitas Udayana (Unud), Bali*, , Hal. 1311-1332.
- Wulansih, H. ((2014)). “Analisis Tingkat Pendidikan dan Pengalaman Kerja Terhadap Produktivitas Kerja Karyawan pada Perusahaan Funiture CV. Mugiharjo Krgalian Boyolali”. . *Skripsi. Universitas Muhamadiyah Surakarta*