

# Transformational Leadership And Work Stress On Employee Productivity : The Mediating Role Of Job Satisfaction At Pegadaian Dinoyotangsi Surabaya Branch Office

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## ABSTRACT

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This study aims to examine and analyze the effect of transformational leadership and work stress on employee productivity through job satisfaction as a mediator among employees at PT. Pegadaian Cabang Pembantu Dinoyotangsi Surabaya. The sampling technique used is saturated sampling with a total of 49 respondents. The statistical analysis used in this study is SEM (Structural Equation Modeling) and PLS (Partial Least Square) with the aid of SmartPLS4 software. The results of this study explain that transformational leadership has a positive and significant effect on employee productivity. Work stress does not have an effect on employee productivity. Job satisfaction has a positive and significant effect on employee productivity. Transformational leadership has a positive and significant effect on job satisfaction. Work stress does not have an effect on job satisfaction. Job satisfaction mediates the relationship between transformational leadership and employee productivity. Job satisfaction does not mediate the relationship between work stress and employee productivity.

## INTRODUCTION

Globalization has created intense competition in the business world, posing challenges in improving the quality of human resources (Simbolon et al., 2023). In this context, employee productivity becomes a critical factor for companies to remain competitive (Muklis et al., 2022). However, employee productivity is often hindered by a lack of motivation and responsibility due to limited capabilities and insufficient guidance from leaders (Pawirosumarto & Iriani, 2018). At Pegadaian Dinoyotangsi Sub-Branch Surabaya, this issue is evident from employees not consistently

achieving targets and expected work quality, as observed through key performance indicators (KPIs). This situation is exacerbated by unclear directions from leaders, affecting employee motivation and productivity

This study focuses on Pegadaian Dinoyotangsi Sub-Branch Surabaya, a state-owned company providing pawn services, microbusiness financing, and other related services. Based on interviews with branch leaders and employees, it was found that high work targets and lack of motivation have resulted in many tasks being left incomplete on time. Additionally, work demands extending to Saturdays

and a high workload have caused work stress, impacting employees' enthusiasm and productivity.

Transformational leadership is believed to enhance employee productivity by inspiring them to achieve organizational goals (Kumara & Gamage.,2020) Previous research indicates a positive influence of transformational leadership on employee productivity (Kairupan.,2023); (Ngora et al.,2023), although some studies found no such relationship (Putri & Riyanto.,2023). Moreover, work stress is often associated with decreased productivity (Ehsan & Ali, 2019), although other studies report contrasting findings (Shrivastava et al.,2023). Job satisfaction also affects productivity, with most studies identifying a positive relationship between the two (Adeniyi et al.,2022)

There are inconsistencies in findings regarding the relationships between transformational leadership, work stress, and job satisfaction with employee productivity. Some studies identify a positive link between transformational leadership and job satisfaction (Aprileani & Abadi.,2022), while others report no such effect (Ikhran & Fathoni.,2022). Similarly, the influence of work stress on productivity and job satisfaction varies, with some studies showing a positive relationship (Solikhak.,2023) and others a negative one (Komarudin & Astuty.,2023). This study aims to bridge the gap by examining these relationships in the context of Pegadaian Dinoyotangsi Sub-Branch.

This research contributes by exploring the relationships between transformational leadership, work stress, job satisfaction, and employee productivity within the context of the public service sector in Indonesia. The novelty of this study lies in its focus on Pegadaian, a state-owned enterprise, and its holistic approach to examining the complex interplay among these variables, particularly in addressing challenges arising from high work demands and suboptimal leadership.

## **LITERATURE REVIEW**

### ***Transformational Leadership on Employee Productivity***

Transformational leadership is a skill-based method possessed by an individual to manage and influence employees and team members to achieve organizational goals. High-quality employee

productivity can be realized through activities driven by a leader. In other words, achieving good work productivity is the result of the leader's efforts to mobilize employees within the organization (Khan.,2021). According to research conducted by Ngora et al (2023), (Kairupan (2023), and Kumara & Gamage (2020), transformational leadership positively influences employee productivity. However, in contrast, a study by Putri & Riyanto (2023) revealed that transformational leadership has no significant impact on employee productivity.

H1: Transformational leadership has a positive effect on employee productivity

### ***Work Stress on Employee Productivity***

Work stress is a condition that causes physical and psychological imbalance, affecting emotions, thought processes, and employee conditions. The level of work stress experienced by individuals varies and significantly impacts employee productivity. This means that high levels of work stress experienced by employees lead to a decrease in employee productivity (Priyohadi et al., 2021). According to research by Syahputra et al., (2022), Pawirosumarto & Iriani (2018), and Briones (2023), work stress has no influence on employee productivity. However, other studies conducted by Simbolon et al., (2023) and Rani et al., (2021) revealed that work stress negatively affects employee productivity. In contrast, research by Oseremen et al., (2022), Shrivastava et al., (2023), and Ehsan & Ali (2019) showed that work stress positively influences employee productivity. This suggests that work stress does not have a consistent influence on employee productivity.

H2: Work stress has a positive effect on employee productivity

### ***Job Satisfaction on Employee productivity***

Job satisfaction has a significant relationship with employee productivity, as evidenced by the study conducted by Putri & Putih (2023), which stated that job satisfaction is an important factor for employees because the satisfaction they experience positively impacts their work. The higher the level of satisfaction among employees, the more motivated they are to work. Consequently, achieving effective and efficient

employee productivity becomes easier. On the other hand, employees who are dissatisfied with their jobs tend to exhibit negative attitudes toward their work. This implies that job satisfaction experienced by employees greatly influences employee productivity since satisfaction leads to increased productivity, while dissatisfaction can potentially decrease it.

According to studies conducted by Adeniyi et al., (2022), Sitorus & Hidayat (2023), Maida et al., (2017), and Riyandini & Febriyantoro (2023), job satisfaction positively affects employee productivity. However, contrasting findings were reported by Jumrana et al., (2022) and Hura et al. (2023), who stated that job satisfaction has no impact on employee productivity.

H3: Job satisfaction has a positive effect on employee productivity

#### ***Transformational Leadership on Job Satisfaction***

According to Muklis et al., (2022), job satisfaction is defined as an emotional state of each employee, whether pleasant or unpleasant, toward their job. However, the satisfaction experienced by employees is not only observed during their involvement in the workplace but also relates to other aspects, such as the way employees interact with their leaders. Therefore, job satisfaction is closely linked to transformational leadership. Based on studies conducted by Aprileani & Abadi (2022) and Rafia et al., (2020), transformational leadership positively influences job satisfaction. However, contrasting findings were reported by Ikhrum & Fathoni (2022), who stated that transformational leadership has no effect on job satisfaction.

H4: Transformational leadership has a positive effect on job satisfaction

#### ***Work Stress on Job Satisfaction***

According to Yunita & Budiana (2021), work stress is closely related to job satisfaction, as work stress represents the pressure felt by employees in completing their tasks. This implies that stressful situations experienced by employees can lead to dissatisfaction with their jobs. Thus, an increase in work stress among employees will result in a decline in their job satisfaction. Research by Ramlawati et al.,

(2021) indicated that work stress has no effect on job satisfaction. Other studies by Komarudin & Astuty (2023) and Munandar *et al.*, (2019) revealed that work stress negatively affects job satisfaction. However, contrasting findings were presented by Solikhah (2023), who stated that work stress positively influences job satisfaction. This suggests that work stress does not consistently affect job satisfaction.

H5: Work stress has a negative effect on job satisfaction

#### ***Transformational Leadership on Employee Productivity through Job Satisfaction***

Transformational leadership is closely related to job satisfaction, as it can be observed in leaders who motivate their members by implementing the company's vision and mission. This makes employees feel satisfied with their work, leading to improved employee productivity (Fatimah.,2022). An increase in employee productivity can occur when employees experience satisfaction with their jobs. It is unlikely that employee productivity is unrelated to the role of a leader, as effective leadership will result in improved employee productivity Togatorop et al., (2024)

H6: Job satisfaction mediates the effect of transformational leadership on employee productivity

#### ***Work Stress on Employee Productivity through Job satisfaction***

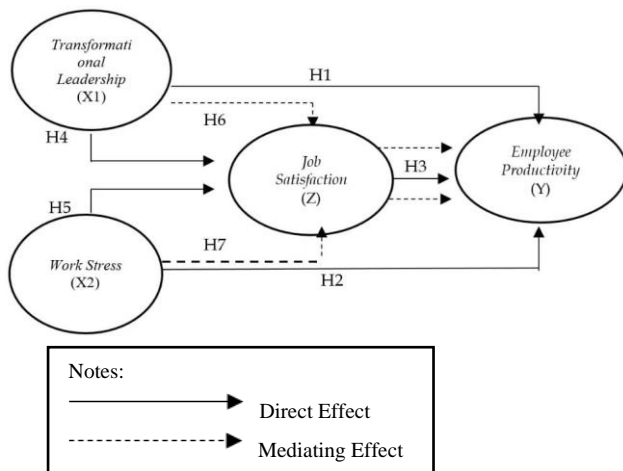
Work stress is a situation that employees may experience and can become a problem for them, potentially reducing productivity. Work stress is caused by excessive workload, discomfort at work, and low job satisfaction. Job satisfaction plays an important role in achieving stable productivity. At certain levels, work stress may increase employee productivity, but if prolonged, it can lead to a decline in productivity. Work stress not only affects the stability of employee productivity but also influences employees' job satisfaction (Radito & Germana.,2020).

Research by Nurhasan & Nugroho (2023) found that job satisfaction mediates the relationship between work stress and employee productivity. Thus, job satisfaction can act as a mediating variable for the effect of work stress on employee productivity.

However, this is not consistent with the findings of Pratama & Widiastina (2023), which showed that job satisfaction cannot mediate the effect of work stress on employee productivity.

H7: Job satisfaction mediates the effect of work stress on employee productivity

Figure 1. Research framework



## METHOD

### Data Analysis (*Times New Roman 11, Bold, Italic*)

This study uses a quantitative approach to analyze the effect of person-job fit on employee performance through job satisfaction. The population in this study consists of employees of PT Pegadaian Dinoyotangsi Surabaya. The sample includes 49 employees of PT Pegadaian Dinoyotangsi Surabaya, selected using a non-probability sampling technique with a saturated sampling type. Data were collected using a Likert scale from 1 (strongly disagree) to 5 (strongly agree) through the distribution of questionnaires. This research is conducted using the Structural Equation Model (SEM) approach with Partial Least Squares (PLS) analysis method, utilizing the Smart-PLS 4 program (Ghozali, 2018).

### Measurement

In this study, a total of 25 statement items were presented. Transformational Leadership is measured using 4 indicators according to Rafia et al., (2020), which include Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration. Work Stress is

measured using 3 indicators according to Simbolon et al., (2023), which include Environmental Stress, Organizational Stress, and Individual Stress. Employee Productivity is measured using 6 indicators according to Ngora et al., (2023), which include Ability, Improving Results, Work Enthusiasm, Self-development, Quality, and Efficiency. Job Satisfaction is measured using 5 indicators according to Fatimah (2022), which include Salary and Wages, the Job Itself, Co-workers, Job Promotion, and Supervision. To analyze the relationships between these constructs, statistical equations were employed using the Structural Equation Model (SEM) approach with Partial Least Squares (PLS)

## RESULT

### Responden Description

According to Hair et al. (2014), a sample size of 49 provides a strong basis for estimation. Therefore, the sample size in this study ( $n = 49$ ) is considered adequate for using PLS-SEM to test the proposed hypotheses, as five components were presented using frequency tests. These four components are gender, age, years of work, and the highest level of education. The results show that there are 36 males (73.5%) and 13 females (26.5%). For age, 12 people (24.5%) are under 25 years old, 24 people (49%) are between 25-35 years old, and 13 people (26.5%) are over 35 years old. In terms of work experience, 12 people (24.5%) have less than 2 years, 15 people (30.6%) have 2-5 years, and 22 people (44.9%) have more than 5 years. As for education, 24 people (49%) have high school education, 20 people (40.8%) have a bachelor's degree, and 5 people (10.2%) have a master's degree.

### Measurement Model

In the first step, we ran the measurement model in SmartPLS 4 to ensure that the constructs were well correlated based on the proposed variance. Therefore, both convergent and discriminant validity were assessed to evaluate the measurement model in this study. To assess convergent validity, the factor loading of each item was examined in the first stage. According to Ghozali & Latan (2015), all indicators can be considered valid if they meet a correlation value greater than 0.50. As shown in Figure 2, for all indicator variables in this study, the factor loading visible through the outer loading value of each item is

greater than 0.50. This indicates the validity of the statement items for each variable in this study.

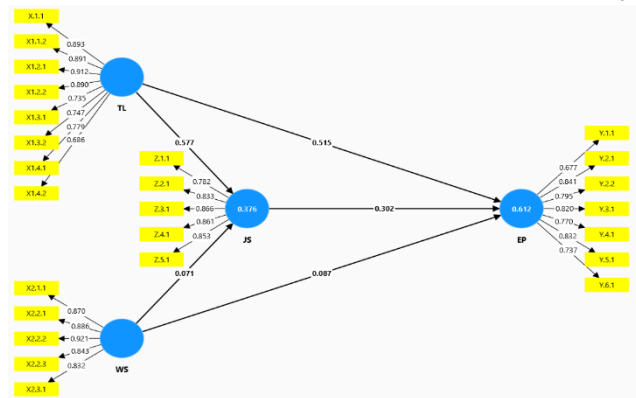


Figure 2. Measurement Model

Composite reliability (CR) was assessed to check the internal consistency in this study. Hair et al. (2020) recommend a threshold value of 0.70 for CR. In this study, the CR for all items ranged from 0.895 to 0.948, exceeding the recommended value of 0.70. Furthermore, Cronbach's alpha (CA) can strengthen the reliability test results obtained from CR. It can be said that the CA value is used to evaluate internal consistency. The CA values in this study ranged from 0.895 to 0.931, which are above 0.70. Lastly, the Average Variance Extracted (AVE) was examined to establish convergent validity in this study. According to Hair et al. (2020), AVE represents the overall average squared indicators related to the research construct. An AVE value of 0.50 indicates that 50% of the items provide sufficient explanation for the construct (Hair et al., 2020). In this study, the AVE values for all constructs ranged from 0.614 to 0.758, which exceeded the recommended value of 0.50. The specific Measurement Model can be seen in Table 1.

Table 1. Specified Measurement Model

Variable and scale item	AVE	CR	CA	Mean
Employee Productivity	0,614	0,894	0,896	3,89
Job Satisfaction	0,705	0,895	0,895	3,56
Transformational Leadership	0,674	0,931	0,948	3,95
Work Stress	0,758	0,920	0,929	3,11

The respondents' answers were then interpreted using the 5-box method by Simamora (2005). Based on the criteria for selecting Likert scale answers, the five ranges must be divided into three, resulting in the following ranges: 1.00 (1.00 – 1.80) = very low; 1.81 – 2.60 = low; 2.61 - 3.40 = moderate; 3.41-4.20 = high;

4.21 – 5.00 = very high. These ranges were then used as criteria for selecting Likert scale answers. Based on the respondents' assessment of the research variables (Transformational leadership = 3.95; Work stress = 3.11; Employee productivity = 3.89; Job satisfaction = 3.56), three variables fell into the high category and one variable fell into the moderate category.

### Structural Model Assessment

It has been suggested to report the path coefficients, p-values, and t-statistics in the structural model to evaluate the significance of the hypotheses (Rahman et al., 2020). The structural model is assessed by examining the significance values to determine the effect between variables through bootstrapping. Table 2 presents the results of the hypothesis testing for both direct and indirect effects.

Table 2. Hypothesis Testing for Direct Effect and Indirect Effect

Relationship	Coefficient	T-Stats	P-Value
Direct effect			
Transformational Leadership → Employee Productivity	0,515	4,474	0,000
Work Stress → Employee Productivity	0,087	0,764	0,445
Job Satisfaction → Employee Productivity	0,302	2,887	0,004
Indirect effect			
Transformational Leadership → Job Satisfaction → Employee Productivity	0,174	2,478	0,013
Work Stress → Job Satisfaction → Employee Productivity	0,022	0,428	0,669

Discussion of H1 shows that transformational leadership has a significant positive effect on employee productivity. The path analysis results indicate a relationship ( $\beta = 0.515$ , t-statistic = 4.474,  $p < 0.05$ ), so H1 is accepted. H2 shows no significant effect between work stress and employee productivity. The path analysis results indicate ( $\beta = 0.087$ , t-statistic = 0.764,  $p > 0.05$ ), so H2 is rejected. Hypothesis 3 indicates a significant positive effect of job satisfaction on employee productivity. The path analysis results show a relationship ( $\beta = 0.302$ , t-statistic = 2.887,  $p < 0.05$ ), so H3 is accepted.

Hypothesis 4 is also supported due to the significant positive relationship between transformational leadership and job satisfaction. The path analysis results show a relationship ( $\beta = 0.577$ ,  $t$ -statistic = 4.409,  $p < 0.05$ ), so H4 is accepted. Hypothesis 5 shows no significant effect between work stress and job satisfaction. The path analysis results indicate ( $\beta = 0.071$ ,  $t$ -statistic = 0.457,  $p > 0.05$ ), so H5 is rejected. H6 shows that job satisfaction mediates the effect of transformational leadership on employee productivity. The path analysis results show a relationship ( $\beta = 0.174$ ,  $t$ -statistic = 2.478,  $p < 0.05$ ), so H6 is accepted. H7 shows that job satisfaction mediates the effect of work stress on employee productivity. The path analysis results indicate ( $\beta = 0.022$ ,  $t$ -statistic = 0.428,  $p > 0.05$ ), so H7 is rejected.

## DISCUSSION

The overall objective of this study is to analyze the impact of transformational leadership and work stress on employee productivity through job satisfaction at PT Pegadaian Branch Pembantu Dinoyotangsi Surabaya. We found a significant positive relationship between transformational leadership and employee productivity through job satisfaction. Additionally, we found no significant relationship between work stress and employee productivity through job satisfaction.

The research findings reveal that transformational leadership has a significant positive effect on employee productivity. These findings align with studies by Ngora et al., (2023), Kumara & Gamage (2020), and Kairupan (2023), which state that there is a significant positive influence of transformational leadership on employee productivity. Based on these results, transformational leadership can enhance employee productivity. This is because the employees at PT Pegadaian Branch Pembantu Dinoyotangsi Surabaya feel that their leaders are capable of increasing human resource productivity by monitoring and overseeing all employee activities down to the lowest level. This demonstrates that the leader can boost employee productivity. This is further evidenced by the rise in the company's ranking, which was initially at the bottom but increased to second place in East Java under the leadership of the current manager.

The second finding is that work stress does not have a significant impact on employee productivity.

This finding supports previous studies conducted by Pawirosumarto & Iriani (2018) and Briones (2023), which stated that work stress does not affect employee productivity. Work stress does not significantly impact employee productivity. This is also supported by respondent data, which shows that the indicator of work stress related to environmental stress only scored 3.05, reflecting the job demands set by the company. This indicates that high job demands are well managed, and therefore, no matter how much work stress is carried, it does not affect employee productivity.

The third finding is that job satisfaction has a significant positive effect on employee productivity. This finding reinforces research conducted by Maida et al., (2017), Adeniyi et al., (2022), and Saeed & Waghule (2021), which states that there is a relationship between job satisfaction and employee productivity. Based on these results, high job satisfaction leads to better employee productivity. Interviews with employees at PT Pegadaian Cabang Pembantu Dinoyotangsi Surabaya revealed statements such as "I am very satisfied working at PT Pegadaian Cabang Pembantu Dinoyotangsi Surabaya because the company provides a good opportunity to develop myself." This suggests that the opportunity for career development is one of the key aspects that influences the job satisfaction felt by employees.

The fourth finding reveals that transformational leadership has a significant positive effect on job satisfaction. This finding supports research by Muklis et al., (2022) and Rafia et al., (2020), which states that there is a significant positive relationship between transformational leadership and employee productivity. Based on these results, transformational leadership can enhance job satisfaction. Transformational leadership is considered one of the factors that can drive job satisfaction. This is because transformational leadership fosters trust between employees and their leaders, handles employees professionally, and provides opportunities for employees to develop—all of which are positively related to the job satisfaction experienced by employees (Aprileani & Abadi.,2022). The descriptive statistical analysis of job satisfaction regarding the supervision indicator shows a high average value. This is because the leader has been able to provide guidance and evaluation for each employee. This, in turn, fosters

a sense of satisfaction for employees in their work environment.

The fifth finding reveals that work stress does not have a significant impact on employee productivity. This finding aligns with previous studies conducted by Ramlawati et al., (2021) and Nurhasan & Nugroho (2023), which also concluded that work stress does not significantly influence job satisfaction. This is further supported by respondent data, which shows that the highest average score for job satisfaction indicators comes from the salary and wage indicator. This phenomenon occurs because when employees successfully complete their tasks or even exceed the company's set targets, they receive larger bonuses. These rewards in the form of bonuses can enhance employees' job satisfaction. Moreover, the stress experienced by employees can motivate them to work harder to achieve greater rewards, thereby increasing their overall job satisfaction.

The next finding highlights that job satisfaction can mediate the relationship between transformational leadership and employee productivity. This is consistent with previous research conducted by Togatorop et al., (2024), which demonstrated that transformational leadership, through employee job satisfaction, has a significant impact on work productivity. This suggests that employee work effectiveness can be enhanced if transformational leadership is implemented and accompanied by the job satisfaction experienced by employees.

The final finding indicates that job satisfaction can mediate the relationship between transformational leadership and employee productivity. This aligns with previous research by Pratama & Widiastina (2023), which showed that work stress, through job satisfaction, does not have an impact on productivity.

## CONCLUSION

Transformational leadership and work stress play a crucial role in maintaining and enhancing employee productivity within organizations, particularly at PT Pegadaian Dinoyotangsi Sub-Branch. This study examines the influence of transformational leadership and work stress on employee productivity through job satisfaction. The results reveal that transformational leadership has a positive and significant effect on employee productivity through job satisfaction among employees at PT Pegadaian Dinoyotangsi Surabaya.

However, work stress does not have a significant effect on employee productivity through job satisfaction among these employees.

## References

- Adeniyi, Ajamobe, & Adeniyi. (2022). Work Environment, Supervision and Job Satisfaction on Employees Productivity of Manufacturing Firms in Oluyole Local Government Area, Oyo State, Nigeria. *International Journal of Business Studies*, 6(3), 178–192. <https://doi.org/10.32924/ijbs.v6i3.233>
- Aprileani, A. P., & Abadi, F. (2022). The Roles of Transformational Leadership on Employee's Job Satisfaction, Readiness for Change, and Organizational Commitment of Islamic Banking in Indonesia. *Indonesian Journal of Business Analytics (IJBA)*, 2(2), 213–230. <https://journal.formosapublisher.org/index.php/ijba/index>
- Aprilyanti. (2017). Pengaruh Usia dan Masa Kerja. *Jurnal Sistem Dan Manajemen Industri*, 1(2), 68–72. <https://doi.org/https://doi.org/10.30656/jsmi.v1i2.413>
- Briones. (2023). *The Effect of Workload and Work Stress on Employees' Work Motivation and Productivity in a Manufacturing Company*. 134(1), 158–170.
- Fatimah, ayu siti. (2022). Pengaruh Kepemimpinan Transformasional Budaya Organisasi Terhadap Produktivitas Sdm Dengan Kepuasan Kerja Sebagai Variabel Intervening. *Jurnal Ekobis Dewantara*, 5(2), 180–188. [https://doi.org/10.26460/ed\\_en.v5i2.1482](https://doi.org/10.26460/ed_en.v5i2.1482)
- Ghulam, D., Komarudin, F., & Astuty, I. (2023). *The Effect of Work Stress on Work Deviant Behavior Case Study: CV. Madinna Dome Ambassador through Job Satisfaction as an Intervening Variable*. 02(3), 253–264.
- Ghozali, I. (2018). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 (9th ed.). Universitas Diponegoro
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European*

business review,26(2), 106-121.

- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of business research*,109, 101-110.
- Hidayah, Fitriana Nurochmatul, & Wardoyo, Dewie Tri Wijayati. (2024). Pengaruh work motivation dan digital culture terhadap work productivity melalui work engagement. *Jurnal Ilmu Manajemen*, 12(1), 43–58. <https://doi.org/10.26740/jim.v12n1.p43-58>
- Kairupan, D. J. I. (2023). Transactional and Transformational Leadership Styles on the Effectiveness of Work From Home and Work Productivity. *Telaah Bisnis*, 24(1), 62–71. <https://doi.org/10.35917/tb.v24i1.335>
- Khan, I. J. (2021). Pengaruh Kepemimpinan Transformasional Terhadap Produktivitas Kerja Karyawan Pada PT Pegadaian (Persero) Cabang Purwotomo Surakarta. *Universitas Muhammadiyah Surakarta*, 1–17. [https://eprints.ums.ac.id/92945/9/Naspub\\_Irmad\\_hani\\_B100170401.pdf](https://eprints.ums.ac.id/92945/9/Naspub_Irmad_hani_B100170401.pdf)
- Komarudin, & Astuty. (2023). *The Effect of Work Stress on Work Deviant Behavior Case Study : CV . Madinna Dome Ambassador through Job Satisfaction as an Intervening Variable*. 02(3), 253–264.
- Kumara, K. R. C., & Gamage, P. (2020). Impact of Perceived Transformational Leadership on Productivity of Information Technology Professionals in Sri Lanka : Mediating Effect of Organizational Commitment. *Journal of Human Resource Management Perspectives*, 5(2), 19–40. <https://doi.org/10.4038/sljms.v2i1.31>
- Maida, M. T., Riyanto, S., & Ali, H. (2017). Effect of Job Satisfaction and Leadership Style towards Employee Productivity at PT Asuransi Umum Bumiputera Muda 1967. *Saudi Journal of Business and Management Studies*, 2(3A), 157–168. <https://doi.org/10.21276/sjbms.2017.2.3.7>
- Muklis, M., Nugroho, R., & Riyadi, S. (2022). Transformational Leadership, Work Motivation on Job Satisfaction, Employee Performance At National Amil Zakat Institution. *Indonesian Journal of Multidisciplinary Science*, 1(7), 722–736. <https://doi.org/10.55324/ijoms.v1i7.139>
- Ngora, Yovita Klaudia, Fanggidae, Rolland E, Salean, Debryana Y, & Timuneno, T. (2023). PENGARUH KEPEMIMPINAN TRANSFORMASIONAL PRODUKTIVITAS KERJA KARYAWAN PADA PT CIPTA NIAGA SEMESTA KUPANG The Effect of Transformational Leadership and Work Engagement on. *Jurnal Ekonomi Dan Ilmu Sosial*, 1001–1010.
- Nurhasan, A. M., & Nugroho, M. A. S. (2023). Pengaruh Kompensasi, Lingkungan Kerja, dan Stres Kerja Terhadap Produktivitas Kerja Melalui Variabel Intervening Kepuasan Kerja Pegawai (Studi Pada KPP Pratama Yogyakarta). *Jurnal Riset Akuntansi Indonesia*, 1(3), 473–505. <https://doi.org/10.32477/jrima.v1i3.736>
- Ohiokha, G., Oseremen, E., Ohiokha, F., & Omokhodu, O. W. (2022). Empirical analysis of the effect of work stress on employee productivity in the banking industry. *Problems and Perspectives in Management*, 20(3), 117–129. [https://doi.org/10.21511/ppm.20\(3\).2022.10](https://doi.org/10.21511/ppm.20(3).2022.10)
- Oseremen, Ohiokha, Omokhodu, Ohiokha, & Omowumi. (2022). *Empirical analysis of the effect of work stress on employee productivity in the banking industry*. [https://doi.org/10.21511/ppm.20\(3\).2022.10](https://doi.org/10.21511/ppm.20(3).2022.10)
- Pawirosumarto, S., & Iriani, D. (2018). The influence of work stress, working cost, compensation and work discipline on employee' productivity. *International Journal of Economics and Business Administration*, 6(4), 62–75. <https://doi.org/10.35808/ijeba/175>
- Priyohadi, Widyawati, Mutmainah, & Suyono. (2021). The Determinant Factors Of Work Productivity At Port Operating Company: Work Conflict, Work Stress And Leadership. *IJEED (International Journal of Entrepreneurship and Business Development)*, 4(3), 382–389. <https://doi.org/10.29138/ijeed.v4i3.1372>
- Putri, M. A., & Riyanto, S. (2023). The Effect of Work Discipline, Work Environment and Transformational Leadership on Employee Productivity with Organizational Effectiveness as Mediating Variable in CV. Jaya Bangun Persada. *International Journal of Innovative Science and Research Technology*, 8(7), 1864–1870. [www.ijisrt.com/1864](http://www.ijisrt.com/1864)
- Rafia, R., Achmad, R. R., & Sunaryo, S. (2020). the

- Effect of Transformational Leadership on Employee Performance Mediated By Job Satisfaction and Employee Engagement. *International Journal of Business, Economics and Law*, 21(5), 119–125. [https://www.ijbel.com/wp-content/uploads/2020/06/IJBEL21\\_257.pdf](https://www.ijbel.com/wp-content/uploads/2020/06/IJBEL21_257.pdf)
- Ramlawati, R., Trisnawati, E., Yasin, N. A., & Kurniawaty, K. (2021). External alternatives, job stress on job satisfaction and employee turnover intention. *Management Science Letters*, 11, 511–518. <https://doi.org/10.5267/j.msl.2020.9.016>
- Rani, A., Kumar, R., & Singh, S. (2021). THE EFFECT OF WORK STRESS ON PRODUCTIVITY OF FEMALE WORKERS IN The effect of work stress on productivity of female workers in the healthcare sector. *Indian Journal of Health and Well-Being*, 12(1–3), 21–25. <https://iahrw.org/our-services/journals/indian-journal-of-health-wellbeing/>
- Riyandini, N. I., & Febriyantoro, M. T. (2023). the Effect of Leadership Style, Employee Effectiveness, Supervisor Support on Employee Productivity, Employee Satisfaction Dimension At Pt. Jaya Constructio. *Research Trend in Technology and Management*, 1(3), 177–187. <https://doi.org/10.56442/rttm.v1i3.30>
- Saeed, O. A., & S.N. Waghule. (2021). “Exploring the Association between Job Satisfaction and Productivity: Empirical Evidence from India.” *Studies in Economics and Business Relations*, 2(1), 60–71. <https://doi.org/10.48185/sebr.v2i1.301>
- Shrivastava, N., Tiwari, N., Thangavel, E., Verma, A., & Srivastava, T. (2023). Impact of Work-Related Stress on Employee Productivity. *Scholars Bulletin*, 9(08), 108–113. <https://doi.org/10.36348/sb.2023.v09i08.004>
- Simamora, H., 2004. *Manajemen sumber daya manusia*. 3 ed. Yogyakarta: Bagian Penerbitan STIE YPKN
- Simbolon, S., Sutiono, L., & Simbolon, D. M. (2023). The Effect of Leadership Style, Work Stress and Commitment on Employee Work Productivity at PT. Lunadorii Utama in Medan, Indonesia. *International Journal of Finance, Economics and Business*, 2(1), 1–12. <https://doi.org/10.56225/ijfeb.v2i1.167>
- Sitorus, & Hidayat. (2023). The Effect of Compensation and Job Satisfaction on Employee Productivity. *Journal of International Conference Proceedings*, 6(4), 12–24. <https://doi.org/10.32535/jicp.v6i4.2608>
- Solikhah, M. (2023b). Analysis Of The Influence Of Work Stress On Employee Performance With Job Satisfaction As An Intervening Variable. *Journal Research of Social Science, Economics, and Management*, 3(02), 403–413. <https://doi.org/10.59141/jrssem.v3i02.550>
- Syahputra, Andika, & Amelia. (2022). Analysis of the Effect of Compensation, Organizational Culture, Work Stress on Employee Productivity in the Administration Section of the Environmental Polytechnic of Medan. *Rowter Journal*, 1(1), 35–42. <https://doi.org/10.33258/rowter.v1i1.576>
- Togatorop, Afrida Deyuwi Fortuna, Andri, S., & Mandataris. (2024). The Influence of Organizational Culture and Transformational Leadership on Work Productivity Through Employee Job Satisfaction As An Intervening Variable. *Cerdika: Jurnal Ilmiah Indonesia*, 4(03), 200–213. <https://doi.org/10.59141/cerdika.v4i03.763>
- Widyawati, N., Priyohadi, N. D., Mutmainah, S., & Suyono, J. (2021). The Determinant Factors Of Work Productivity At Port Operating Company: Work Conflict, Work Stress And Leadership. *IJEED (International Journal of Entrepreneurship and Business Development)*, 4(3), 382–389. <https://doi.org/10.29138/ijeed.v4i3.1372>
- Wijaya, R., & Bahjatulloh, Q. M. (2022). Pengaruh Lingkungan Kerja, Gaya Kepemimpinan dan Religiusitas Terhadap Produktivitas Karyawan PT. Nada Surya Tunggal Melalui Kepuasan Kerja. *Mabny: Journal of Sharia Management and Business*, 2(02), 78–87. <https://doi.org/10.19105/mabny.v2i02.6626>