

## THE INFLUENCE OF SOCIAL SUPPORT AND WORK STRESS ON JOB SATISFACTION MEDIATED BY WORK-LIFE BALANCE AT PT SAYAP MAS UTAMA (WINGS GROUP) DC MAMPANG

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### ABSTRACT

*This study aims to analyze the influence of social support and work stress on job satisfaction mediated by work-life balance on employees of PT Sayap Mas Utama (Wings Group) DC Mampang. This study uses a quantitative approach with a survey method by distributing questionnaires to respondents. The data collection technique used is in the form of distributing questionnaires to employees of PT Sayap Mas Utama (Wings Group) DC Mampang. The sampling technique in this study uses the simple random sampling method. The number of samples in this study was 97 respondents, so that each employee has the same opportunity to become a respondent. The data analysis technique used in this study is to use the Structural Equation Modeling (SEM) technique using Partial Least Square (PLS) with the help of SmartPLS 4.0 software. The results of the study indicate that 1) Social Support has a positive effect on Work-life Balance 2) Work Stress has a negative effect on Work-life Balance 3) Social Support has a positive effect on job satisfaction 4) Work Stress has a negative effect on job satisfaction 5) Work-life Balance has a positive effect on job satisfaction 6) Social Support on job satisfaction can be mediated by Work-life Balance 7) Work Stress on job satisfaction can be mediated by Work-life Balance.*

**Keywords:** Social support, work stress, job satisfaction, work-life balance, structural equation modeling.

### INTRODUCTION

The rapid growth of business today requires companies to always excel and compete. In order for a company to be able to become a superior and competitive company, the company needs various ways that are structured in a program to be able to increase employee job satisfaction. In achieving company goals, the role of good human resources is needed, because with good human resource management, it will also produce good employee job satisfaction.

Human resources are one of the important factors that need to be managed by the company in order to increase job satisfaction and company productivity. Human resources are also a determining factor in achieving company goals. This is because the main driving factor in the company is the human itself or the people involved in it. So it is important for the company to see the work given to employees by paying attention to social support and work stress and the work-life balance given to employees so that employees can maintain their satisfaction.

All activities carried out to improve the efforts of an organization or company are demonstrated through efforts to produce job satisfaction. Human resources who have job satisfaction according to the company's expectations are important assets because they contribute to increasing the company's progress. Success in achieving superior job satisfaction requires the strategic role of employees as actors in every company activity. Therefore, companies need to monitor job satisfaction intensively to ensure compliance with standards and provide results as expected by the company. Continuous efforts to develop job satisfaction are a challenge for managers. This also plays an important role in facilitating company activities in every work process (Munir et al., 2022).

Companies with hundreds of employees such as PT Sayap Mas Utama (Wings Group) DC Mampang often face challenges in maintaining employee welfare, one of which is job satisfaction. Job satisfaction is

an important factor in employee productivity and retention. Various factors can influence job satisfaction, including social support and job stress. Social support can be in the form of emotional support, appreciation, instrumental or information received by employees from coworkers, superiors, or family, which plays a role in improving psychological well-being and reducing stress. On the other hand, job stress can be caused by high workloads, deadline pressure, or interpersonal conflicts in the workplace, namely environmental, organizational and individual stress, which if not managed properly, can reduce job satisfaction. However, the influence of social support and work stress on job satisfaction is not always direct. An important factor that can mediate the relationship is work-life balance (WLB), which is the ability of employees to balance the demands of work and personal life. A good work-life balance can help employees manage stress, gain social support and ultimately increase their job satisfaction.

This study is based on the Social Exchange Theory (Blau, 1964), which states that the relationship between individuals and organizations is based on the principle of reciprocity. In the context of employment relationships, when organizations provide support such as work flexibility, work-life balance programs, or a supportive work environment, employees will feel appreciated and motivated to reciprocate with a positive attitude towards work and the organization.

In the context of Work-Life Balance (WLB), Social Exchange Theory explains that organizational support for work-life balance is considered an “investment” or form of attention to employee needs. In return, employees who feel their work-life balance is supported tend to show higher organizational commitment, job satisfaction, productivity, and loyalty. Thus, work-life balance not only impacts the quality of life of employees, but also the overall performance of the organization, through a mutually beneficial social exchange process.

According to Sarason, social support is the existence, availability, and concern of people who can be relied on, appreciate and love us. According to (Ibda, 2023), social support has four types of dimensions, namely emotional support, instrumental support, information support and assessment support. Job Stress is a condition of tension that creates a physical and psychological imbalance, which affects the emotions, thought processes, and conditions of an employee (Buulolo, 2021). The causes of stress are physical, mental, social, and spiritual. According to (Firdaus, 2022) there are three dimensions of work stress, namely environmental stress, organizational stress, and individual stress.

Lack of employee job satisfaction has a negative impact on the company and the achievement of goals will get unsatisfactory results. Job satisfaction is an important target in human resource management, because it will directly or indirectly affect work productivity. Organizations that have more satisfied employees tend to be more effective than organizations that have fewer satisfied employees. According to (Suryani, 2022), job satisfaction is a person's emotional state about the surrounding situation and provides a happy or unhappy reaction. Organizations that have more satisfied employees tend to be more effective than organizations that have fewer satisfied employees. According to (Novalia, 2020), there are several dimensions of job satisfaction, namely salary, the work itself, coworkers, superiors, promotions, and the work environment. From an employee perspective, work-life balance is an effort to balance work life with home life. Companies view work-life balance as an added value offered to employees so that they are willing to work for the company. Employees are considered to choose companies that have a work-life balance program rather than those that do not.

According to (Ramdhani, 2021), work-life balance is how individuals feel satisfied and involved with the roles they play in work and family simultaneously. According to (Mahardika et al., 2022), work-life balance can be broken down into three main dimensions, namely time balance, involvement balance, and satisfaction balance.

This study aims to explore and analyze the influence of social support and work stress on job satisfaction mediated by work-life balance at PT Sayap Mas Utama (Wings Group) DC Mampang. By understanding this mechanism, the company is expected to be able to create more appropriate policies in improving the quality of employee work life. The object of the study is PT. Sayap Mas Utama (Wings Group) is an Indonesian multinational company engaged in the Fast Moving Consumer Goods (FMCG) sector.

## RESEARCH METHODS

This study uses quantitative methods. The main objective is to analyze the effect of social support and work stress on job satisfaction mediated by work-life balance at PT Sayap Mas Utama DC Mampang. Data collection was carried out through the questionnaire distribution method and data analysis was carried out using Structural Equation Modeling (SEM) technique using Partial Least Square (PLS) with the help of SmartPLS 4.0 software. The population in this study were employees of PT Sayap Mas Utama DC Mampang. The sampling technique in this study used the simple random sampling method.

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by research to be studied and then conclusions drawn (Amin et al., 2023). In this study, the population needed for observation materials is employees of PT Sayap Mas Utama DC Mampang. A sample is a small part of a population that is considered to represent the population regarding the research being conducted (Amin et al., 2023). In this study, sampling used the Slovin formula and the number of samples in this study was 97 respondents or employees of PT Sayap Mas Utama DC Mampang.

Data is defined as information about a research object, can be categorized into primary and secondary sources. Primary data is data obtained directly from the object being studied (Nurjanah, 2021). The primary data in this study is a recapitulation of data from the results of the questionnaires distributed in the form of statements regarding the influence of social support and work stress on job satisfaction mediated by work-life balance at PT Sayap Mas Utama DC Mampang. While secondary data is data obtained indirectly from the object of research. In this study, the secondary data are literature, articles, books, and journals related to the research conducted. Analysis The data in this study used SmartPLS software version 4.0 (Partial Least Square), a variance-based structural equation analysis tool. SmartPLS can test measurement models and structural models simultaneously.

## RESULTS AND DISCUSSION

### 1. Convergent Validity

In the evaluation of convergent validity, it can be seen from the standardized outer loading factor value which describes the comparison value between the indicator and the latent variable. The outer loading factor value can be said to be ideal with a value  $< 0.7$ . In empirical research experience, the outer loading factor value  $< 0.5$  is still acceptable, even some experts tolerate a minimum figure of 0.4 (Milatalata & Hartanto, 2022).

Based on the data in table 1, the value can be determined using outer loading. The lowest value in the outer model test results of this research model is 0.550 on the WLB5/work-life balance indicator. Referring to the results of the previous research outer model test, the outer loading limit is determined to be 0.5. These results indicate that the model meets the assumption of convergent validity because the lowest outer loading value obtained is  $0.550 > 0.5$ .

## 2. Validitas Diskriminan

The discriminant validity of the indicator can be seen in the cross loading between the indicator and its latent variable. If the correlation of the latent variable with the indicator is greater than the size of other latent variables, then it shows that the latent variable predicts the size of their block better than the size of other blocks (Nisa et al., 2021).

Cross Loading is an evaluation of discriminant validity at the measurement item level. Each item correlates higher with the variable it measures, so the discriminant validity evaluation is met (Purwatiningsih, Iwan, 2023).

Table 1 below explains the cross loadings value of each indicator against each variable with a value of  $> 0.5$  and shows that it is greater than the block next to it. The cross loadings results have shown that they meet the requirements so it is concluded that this study's discriminant validity has been met. The results of the data processing of this study indicate that all variables have good construct validity. From the table below, the AVE value is  $> 0.5$ . Therefore, it can be said that all variables of this study have internal consistency reliability.

**Table 1. Assessment Validity**

Variable	Item	Cross Loading	Result	CR	AVE	Result
Work-life Balance	M.1	0.830	Valid	0.861	0.560	Valid
	M.2	0.748				
	M.3	0.885				
	M.4	0.836				
	M.5	0.550				
	M.6	0.572				
Social Support	X <sub>1.1</sub>	0.433	Valid	0.885	0.550	Valid
	X <sub>1.2</sub>	0.510				
	X <sub>1.3</sub>	0.429				
	X <sub>1.4</sub>	0.401				
	X <sub>1.5</sub>	0.575				
	X <sub>1.6</sub>	0.479				
	X <sub>1.7</sub>	0.596				
	X <sub>1.8</sub>	0.583				
Work Stress	X <sub>2.1</sub>	0.449	Valid	0.899	0.614	Valid
	X <sub>2.2</sub>	0.589				
	X <sub>2.3</sub>	0.609				
	X <sub>2.4</sub>	0.544				
	X <sub>2.5</sub>	0.612				
	X <sub>2.6</sub>	0.562				
	X <sub>2.7</sub>	0.680				
Job Satisfaction	Y.1	0.615	Valid	0.924	0.525	Valid
	Y.2	0.648				
	Y.3	0.512				
	Y.4	0.511				
	Y.5	0.478				
	Y.6	0.468				
	Y.7	0.367				
	Y.8	0.452				
	Y.9	0.548				
	Y.10	0.441				
	Y.11	0.627				

### 3. Heterotrait-Monotrait Ratio Test (HTMT)

The next validity test is to look at the Heterotrait-Monotrait Ratio (HTMT) value. The required HTMT ratio must be less than 1 so that it can be said to meet the discriminant validity assessment (Hilmi, 2022). (Efilia & Almassawa, 2025) recommends Heterotrait Monotrait Ratio Criterion MTMT because this measure of discriminant validity is considered more sensitive or accurate in detecting discriminant validity. The recommended value is below 0.90.

The results show in table 3 Heterotrait-Monotrait Ratio Criterion (HTMT) below 0.90 for a pair of variables, then the discrimination validity is achieved. The variable divides the variation of the measurement item to the item that measures it stronger than dividing the variable to the other variable items.

Table 2. Heterotrait-Monotrait Ratio Test (HTMT)

Variable	Work-life Balance (M)	Social Support (X <sub>1</sub> )	Stres Kerja (X <sub>2</sub> )	Keputusan Kerja (Y)
<i>Work-life Balance (M)</i>				
<i>Social Support (X<sub>1</sub>)</i>	0.774			
<i>Stres Kerja (X<sub>2</sub>)</i>	0.837	0.745		
<i>Kepuasan Kerja (Y)</i>	0.842	0.816	0.843	

### 4. Validity and Reliability Construction

According to (Alvin et al., 2023) Cronbach's composite reliability test score can be accepted and declared valid if the value of each variable meets the requirements, namely a value > 0.7. Composite reliability > 0.7 means the item variable is reliable. Meanwhile, the results of Cronbach alpha and composite reliability obtained the lowest value of 0.834. Thus, these results also prove that all variables meet the assumption of construct reliability because the lowest Cronbach alpha and composite reliability values are > 0.7.

It can be concluded from table 3 below that the Cronbach Alpha value in this study is > 0.70, meaning that all the constructs in this study have become a fit measuring instrument and have good reliability.

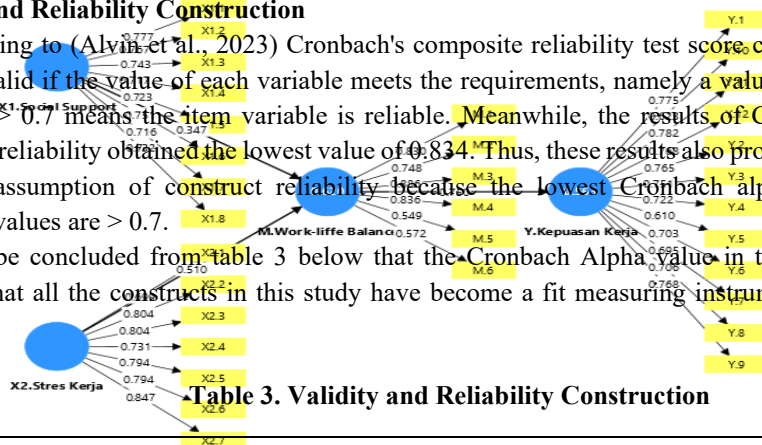


Table 3. Validity and Reliability Construction

Variable	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
<i>Work-life Balance (M)</i>	0.834	0.861	0.881	0.560
<i>Social Support (X<sub>1</sub>)</i>	0.884	0.885	0.907	0.550
<i>Stres Kerja (X<sub>2</sub>)</i>	0.894	0.899	0.917	0.614
<i>Kepuasan Kerja (Y)</i>	0.917	0.924	0.930	0.525

**Figure 1. Inner Model, Bootstrapping Testing**

## 5. Hypothesis Testing

Hypothesis testing can be done by testing the path coefficient using bootstrapping. A hypothesis will be accepted if the two-tailed significance test and margin of error have a value of 0.05 or 5% in testing the research hypothesis. The requirements that must be met in conducting the test are the t-statistic value  $> 1.96$  and the p values  $> 0.05$  (Alvin et al., 2023).

- If it t statistic  $>$  t table and p value  $<$  sig 0,05 then Ha is accepted, Ho rejected.
- If it t statistic  $\leq$  t table and p value  $\geq$  sig 0,05 means Ha is rejected, Ho is accepted.

**Table 4. Hypothesis Testing (Path Analysis)**

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
<i>Social Support (X<sub>1</sub>) -&gt; Work-life Balance (M).</i>	0.339	0.345	0.092	3.686	0.000
<i>Stres Kerja (X<sub>2</sub>) -&gt; Work-life Balance (M).</i>	0.510	0.510	0.090	5.679	0.000
<i>Social Support (X<sub>1</sub>) -&gt; Kepuasan Kerja (Y).</i>	0.335	0.334	0.106	3.175	0.002
<i>Stres Kerja (X<sub>2</sub>) -&gt; Kepuasan Kerja (Y).</i>	0.384	0.393	0.094	4.064	0.000
<i>Work-life Balance (M) -&gt; Kepuasan Kerja (Y).</i>	0.231	0.227	0.087	2.656	0.008

Based on table 4 above, the PLS output (bootstrapping test) can be explained that:

- The path coefficient of hypothesis 1 is the social support variable on work-life balance. From the results of the table above, there is a direct influence of social support (X<sub>1</sub>) on Work-life Balance (M). This is because the t-value is  $>$  t table ( $3.686 > 1.96$ ). While the p-values (0.000 is  $< 0.05$ ). This result also means that with good social support, the higher the employee's work-life balance will be. Thus, it can be concluded that hypothesis 1 is accepted.
- The path coefficient of hypothesis 2 is the variable of work stress on work-life balance. From the results of the table above, there is a direct influence of work stress (X<sub>2</sub>) on Work-life Balance (M). This is because the t-value is  $>$  t table ( $5.679 > 1.96$ ). While the p-values (0.000 is  $< 0.05$ ). This result also means that with high work stress, the lower the employee's work-life balance will be. Thus, it can be concluded that hypothesis 2 is accepted.

3. The path coefficient of hypothesis 3 is the variable of social support on job satisfaction. From the results of the table above, there is no direct influence of social support (X1) on job satisfaction (Y). This is because the calculated t value > t table ( $3.175 < 1.96$ ). And p-values (0.002, namely > 0.05). This result also means that with good social support, employee job satisfaction will be higher. Thus, it can be concluded that hypothesis 3 is accepted.
4. The path coefficient of hypothesis 4 is the variable of work stress on job satisfaction. From the results of the table above, there is a direct influence of work stress (X2) on job satisfaction (Y). This is because the t-value is > t table ( $4.064 > 1.96$ ). While the p-values (0.000 is < 0.05). This result also means that with high work stress, employee job satisfaction will be lower. Thus, it can be concluded that hypothesis 4 is accepted.
5. The path coefficient of hypothesis 5 is the work-life balance variable on job satisfaction. From the results of the table above, there is a direct influence of work-life balance (M) on job satisfaction (Y). This is because the t-value is > t table ( $2.656 > 1.96$ ). While the p-values (0.008 is < 0.05). This result also means that with a good work-life balance, employee job satisfaction will be higher. Thus it can be concluded that hypothesis 5 is accepted.

**Table 5. Specific Indirect Effects Test Results**

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
<i>Social Support (X<sub>1</sub>) -&gt; Work-life Balance (M) -&gt; Kepuasan Kerja (Y).</i>	0.079	0.078	0.036	2.153	0.031
<i>Stres Kerja (X<sub>2</sub>) -&gt; Work-life Balance (M) -&gt; Kepuasan Kerja (Y).</i>	0.118	0.117	0.052	2.261	0.024

6. The path coefficient of hypothesis 6 is the variable of social support on job satisfaction. From the results of the table above, there is an indirect influence between Social Support (X1) through Work-life Balance (M) on Job Satisfaction (Y). This is because the calculated t value > t table ( $2.153 > 1.96$ ) and p-values (0.031, which is < 0.05). This result also means that with a good work-life balance, it can mediate the influence of social support on high employee job satisfaction. Thus, it can be concluded that hypothesis 6 is accepted.
7. The path coefficient of hypothesis 7 is the variable of work stress on work-life balance. From the results of the table above, there is an indirect influence between Social Support (X1) through Work-life Balance (M) on Job Satisfaction (Y). This is because the t-value > t table ( $2.261 > 1.96$ ) and p-values (0.024, which is < 0.05). This result also means that with a good work-life balance, it can mediate the influence of work stress on employee job satisfaction. Thus, it can be concluded that hypothesis 7 is accepted.

## CONCLUSION

Based on the results of the research that has been conducted from the data analysis as explained in the previous chapter, the following conclusions can be drawn. Social support has a positive and significant effect on work-life balance, this shows that with good social support it can significantly increase employee work-life balance by fostering emotional support, appreciation, instrumental, and information support.

Work stress has a negative and significant effect on work-life balance, this shows that by managing or paying attention to work stress well, it can significantly improve employee work-life balance by paying attention to environmental stress, organizational stress, and individual stress. Social support has a positive and significant effect on job satisfaction, this shows that with good social support, it can significantly increase employee job satisfaction by fostering emotional support, appreciation, instrumental support, and information support.

Work stress has a negative and significant effect on job satisfaction, this shows that by managing or paying attention to work stress well, it can significantly increase employee job satisfaction by paying attention to environmental stress, organizational stress, and individual stress. Work-life balance has a positive and significant effect on job satisfaction, this shows that creating a good work-life balance can significantly increase employee job satisfaction with balanced priorities, balanced involvement, and balanced satisfaction.

Social support has a positive and significant effect on job satisfaction through work-life balance as a mediating variable, this shows that by creating a good work-life balance, it can significantly mediate the effect of social support on employee job satisfaction by paying attention to salary, the work itself, coworkers, superiors, promotions, and the work environment. Work stress has a negative and significant effect on job satisfaction through work-life balance as a mediating variable, this shows that creating a good work-life balance can significantly mediate the effect of work stress on employee job satisfaction.

## REFERENCES

- Alvin, A., Nastiti, P., & Marsella, E. (2023). Identifikasi Faktor Loyalitas Pengguna pada Shopee Games Menggunakan Expectation-Confirmation Model (ECM). *Edu Komputika Journal*, 10(1), 38–45. <https://doi.org/10.15294/edukomputika.v10i1.61821>
- Amin, N. F., Garancang, S., Abunawas, K., Makassar, M., Negeri, I., & Makassar, A. (2023). “Konsep Umum Populasi Dan Sampel Dalam Penelitian.” *Jurnal Pilar*, 14(1), 15–31.
- Buulolo, F. (2021). Pengaruh Stres Kerja Terhadap Kinerja Pegawai Pada Kantor Camat Aramo Kabupaten Nias Selatan. *Jurnal Ilmiah Mahasiswa Nias Selatan*, 4. <https://jurnal.uniraya.ac.id/index.php/jim/article/view/236>
- Efilia, A. F., & Almassawa, S. F. (2025). *Variabel Intervening Pada Produk Emina Guardian Aeon Bsd Purchase Decisions Influenced By Promotion And Brand Image With Service Quality As An Intervening Variable On. April*, 6554–6568.
- Firdaus, R. C. (2022). Pengaruh Beban Kerja Dan Stres Kerja Terhadap Kinerja Karyawan Pada PT Mitra Inti Tekindo. *EKONOMI DAN BISNIS (EKOBIS)* 45, 1(2), 47–53.
- Hilmi, M. R. A. (2022). *Pengaruh Kualitas Produk, Harga Dan Gaya Hidup Terhadap Keputusan Pembelian Iphone Dengan Minat Beli Sebagai Variabel Intervening Pada Mahasiswa Unisma*. 12(02), 2780–2788.
- Ibda, F. (2023). Dukungan Sosial: Sebagai bantuan menghadapi stres dalam kalangan remaja yatim di Pantu Asuhan. *Intelektualita*, 12(2).
- Mahardika, A. A., Ingarianti, T., & Zulfiana, U. (2022). Work-life balance pada karyawan generasi Z. *Collabryzk Journal for Scientific Studies*, 1(1), 1–16.
- Milatalata, R., & Hartanto, A. (2022). Peran Ekuitas Merek Dan Persepsi Nilai Yang Dirasakan Sebagai Mediasi Hubungan Aktivitas Pemasaran Media Sosial Terhadap Niat Membeli Kembali (Studi Pada Instagram Erigo). *Syntax Literate ; Jurnal Ilmiah Indonesia*, 7(11), 15606–15625.

- Munir, M., Arifin, S., Darmawan, D., Issalillah, F., & Khayru, R. K. (2022). Pengaruh Motivasi Kerja, Religiusitas, Kepemimpinan Dan Lingkungan Terhadap Kinerja Karyawan. *Jurnal Baruna Horizon*, 5(2), 88–99.
- Nisa, M., Sudarno, S., & Sugito, S. (2021). Moderating structural equation modeling dengan partial least square pada pemodelan penerimaan dan penggunaan dompet digital di Kota Semarang. *Jurnal Gaussian*, 10(1), 66–75.
- Novalia, S. (2020). Pengaruh Kepuasan Kerja Terhadap Kinerja Karyawan Pada PT. Sarana Lampung Ventura. *Jurnal Relevansi: Ekonomi, Manajemen Dan Bisnis*, 4(1), 34–44.
- Nurjanah. (2021). Analisis Kepuasan Konsumen dalam Meningkatkan Pelayanan Pada Usaha Laundry Bunda Nurjanah. *Jurnal Mahasiswa*, 1, h. 5.
- Purwatiningsih, Iwan, S. (2023). “Pengaruh Digital Marketing, Kepuasan Pelanggan dan Kualitas Produk Terhadap Keputusan Pembelian Mobil Listrik di Indonesia.” *Journal of Management & Business*, 6(2), 425–434.
- Ramdhani, D. Y. (2021). Keseimbangan Kehidupan Kerja (Work Life Balance) Sebagai Faktor Yang Mempengaruhi Kinerja Karyawan (Work Life Balance As a Factor Affecting Employee Performance). *Jurnal Manajerial*, 20(1), 98–106.
- Suryani, N. K. (2022). Kepuasan Kerja: Pengaruhnya Dalam Organisasi: Tinjauan Teoritis Dan Empiris. *Jurnal Imagine*, 2(2), 71–77.

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