

The Effect of Career Development and Work Environment on Performance with Job Satisfaction as an Intervening Variable (Case Study at PT. PLN (PERSERO) Main Regional Unit of East Kalimantan and North Kalimantan)

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Abstract. *The research questions are: 1) How does career development affect employee job satisfaction at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan?; 2) How does the work environment affect employee job satisfaction at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan?; 3) How does career development affect employee performance at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan?; 4) How does the work environment affect employee performance at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan?; 5) How does job satisfaction affect employee performance at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan? 6) How does career development influence employee performance, with job satisfaction as a mediating variable, at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan? 7) How does the work environment influence employee performance, with job satisfaction as a mediating variable, at PT. PLN (Persero) Regional Main Units of East Kalimantan and North Kalimantan?. The results of the study (1) career development has a positive and significant effect on job satisfaction, indicating that the better the career development program (2) the work environment has a positive and significant effect on job satisfaction, indicating that improving the quality of the work environment will significantly and directly increase employee job satisfaction. (3) Career development has a positive and significant effect on employee performance, indicating that improving career quality directly increases employee productivity and work results, where the better the career development system, the higher the employee performance. (4) The work environment has a positive and significant effect on employee performance, meaning the better, more comfortable and conducive the work environment (5) job satisfaction has a positive and significant effect on employee performance. (6) Job satisfaction can mediate the significant positive effect of career development on employee performance, which will make employees feel satisfied and then encourage employees to be more active. (7) Job satisfaction can mediate the significant positive effect of the work*

environment on employee performance, meaning a safe, comfortable and harmonious work environment.

Keywords: Career; Job; Performance; Work.

1. Introduction

Entering the era of globalization, competition in the goods and services market is intensifying, requiring companies to produce high-quality, competitive goods and services. Globalization opens up opportunities for companies and consumers to maximize profits and utility. For companies, globalization offers numerous benefits. First, it can open up opportunities for companies to gain a larger market share, enabling them to achieve higher sales. Through globalization, companies can also leverage the abundant resources found in other countries through the Global Value Chain (GVC). Companies can freely choose countries that best suit their value chain stages, offering lower costs and higher revenues. For context, Indonesia, as the fourth most populous country, boasts abundant human resources. Globalization and GVCs offer opportunities for Indonesia, offering a large labor force with relatively low wages compared to other countries. However, these abundant resources are still largely utilized only in the manufacturing process, which has the lowest added value and is often repetitive compared to other stages. This is not without reason; the skills and quality of Indonesia's human resources are a reflection of this.

Table Human Development Index (HDI) Ranking of ASEAN Countries 2024

No	Country Name	World Ranking
1	Singapore	9
2	Brunei Darussalam	55
3	Malaysia	63
4	Thailand	66
5	Vietnamese	107
6	Indonesia	112

Source:(Human Development Insights, 2024)

Refers to *Human Development Index*. According to the 2024 Human Development Index (HDI) released by the United Nations Development Programme, Indonesia ranks sixth out of ten ASEAN countries. According to the UNDP, the HDI encompasses three key dimensions of life: health through life expectancy; education through average years of schooling and expected length of schooling; and income through per capita income. Education is a significant driver of a country's economic competitiveness. Studies indicate that educational achievement, particularly in reading, science, and mathematics, largely explains a country's competitiveness. (Thompson, 2005) This is because a well-educated workforce can increase productivity and innovation, which are crucial for economic growth and global competitiveness. (Baumann & Winzar, 2016; Dustmann & Schoenberg, 2008; Farish, 2006) An educated workforce also directly impacts company performance. For example, countries with higher levels of education tend to have better innovation and productivity. This is because educated workers are better able to solve complex problems and adapt to new technologies. (Barrichello et al., 2020; Baumann & Winzar, 2016) Educated workers can be obtained through structured career development programs provided by both the government and the companies themselves.

Career development and the work environment are elements that influence employee performance. Career development is a multifaceted process involving the continuous growth and advancement of an individual's career. Career development can also be described as the process of learning and utilizing short-term skills to progress toward long-term professional goals. This career development certainly requires a long-term period for individuals to continue developing towards their ultimate career goals. Career development itself is important for both employees and companies. For employees, structured career development helps them ensure they have a career path that aligns with their ultimate career goals. This way, employees can track whether they are making progress toward achieving those goals. Clear and directed career development can also benefit companies through skilled workers who are ready to regenerate the company's management structure, which directly impacts the company's sustainability.

Along with career development, the work environment also plays a significant role in influencing employee performance across various sectors. The work environment itself is where employees conduct their daily activities, and it plays a crucial role in fostering communication and a sense of well-being. Dimensionally, there are two types of work environments: the physical and the psychological. A conducive physical work environment, characterized by comfortable layout, lighting, and cleanliness, impacts the effectiveness and efficiency of employee task performance. Furthermore, a psychological work environment characterized by good communication between employees can boost employee morale and job satisfaction, leading to improved employee performance. When employees feel valued and supported in carrying out their duties, they tend to perform better. Therefore, creating a healthy work environment not only impacts employee comfort but also directly contributes to overall employee performance.

2. Research Methods

Research is generally divided into two types: quantitative and qualitative. Quantitative research is known as research whose data is in the form of numbers, while qualitative research is research whose data comes from non-numerical sources.(Syahrizal & Jailani, 2023)The type of research in this study is quantitative, which is further explained as a research technique that can be said to be more objective and measurable, where in quantitative research, numerical data is used to explain phenomena and analyze relationships between variables. This type of quantitative research also allows researchers to draw conclusions from research results on small groups such as samples and apply those conclusions to larger groups or populations. (Kartikawati et al., 2024).

3. Results and Discussion

3.1. Respondent Overview

The subjects of this study wereemployees of PT. PLN (Persero) UID East Kalimantan and North Kalimantan. Data collection using a questionnaire via Google Form distributed online via WhatsApp from February 24 to April 5, 2026, resulted in 223 respondents person with the following characteristics:

Table 4.1. Respondent Characteristics

Characteristics	Information	Frequency	Percentage
Gender	Man	172	77.1
	Woman	51	22.9
	Total	223	100
Age	<25 years	11	4.9
	25 – 35 years old	70	31.4
	36 – 45 years old	95	42.6
	46 – 55 years old	38	17.0
	>55 years	9	4.0

	Total	223	100
Last education	High school or equivalent	15	6.7
	S1	132	59.2
	S2	76	34.1
	Total	223	100

Based on the gender characteristics of 223 employees of PT. PLN (Persero) UID East Kalimantan and North Kalimantan, it is known that 77.1% are men, this shows that men are considered the head of the family and the main breadwinner, so that men can work in various sectors including at PLN Persero.

Age characteristics show as much as 42.6% employees of PT. PLN (Persero) UID East Kalimantan and North Kalimantan 36-45 years old, this age group is considered mature and productive. Employees at this age tend to have broader and deeper work experience and emotional maturity, allowing them to better understand the dynamics of the workplace and handle challenges more effectively.

Educational characteristics show as much as 59.2% employees of PT. PLN (Persero) UID East Kalimantan and North Kalimantan Having a bachelor's degree indicates that the employee has a higher level of education. Employees with a higher level of education have greater self-confidence, problem-solving skills, and analytical abilities, all of which contribute to better performance in the workplace.

3.2. Variable Description

Descriptive analysis aims to determine respondents' responses to each question asked. In this case, descriptive analysis explains customers' responses to the questions asked for each variable career development, work environment, job satisfaction and employee performance. To find out the respondents' responses to each variable, in this study they were grouped into one score category using a scale range with the following formula (Umar, 2017):

$$Ho : TT - TR$$

spi
tal Scale

Information

RS: Scale Range

TR: Lowest Score (1)

TT: Highest Score (5)

Based on the formula above, the scale range can be calculated:

$$Ho_{spi\ tal} = \frac{5 - 1}{3}$$

$$Ho_{spi\ tal} : 1.3$$

Thus the interval value can be explained as follows:

Low: 1 – 2.33

Medium: 2.34 – 3.67

Height: 3.68 – 5.0

3.3. Description of Career Development Variables

Table Description of Career Development Variables

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Organizational policies	PK1	The company has a clear and transparent career development policy.	6	31	23	100	63	3.82	Tall
	PK2	I feel the company supports my ongoing career development.	10	23	31	100	59	3.78	Tall
Work experience	PK3	I gained new experiences through career development projects provided by the company.	7	23	26	105	62	3.86	Tall
	PK4	The work experience I gained through career development contributed to improving my performance.	8	21	25	111	58	3.85	Tall
Adaptation to change	PK5	Career development helps me master new technologies used in the workplace so that my performance improves.	6	20	33	115	49	3.81	Tall
Average								3.82	Tall

Based on table show that respondents' responses regarding career development has an average value of 3.82 (high) which indicates that the average respondent gave an agreeing response to the statement in the questionnaire, this shows that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan have high career development. Respondents' responses regarding work experience were the highest indicator, with a mean value of 3.86 (high). This indicates that employees gain new experiences through career development

projects provided by the company.PT. PLN (Persero) UID East Kalimantan and North Kalimantan. Then, responses regarding organizational policies obtained a mean value of 3.78, the lowest indicator in this variable, but it is in the high category. This indicates that employees feelPT. PLN (Persero) UID East Kalimantan and North Kalimantan support his/her career development in a sustainable manner.

3.4. Description of Work Environment Variables

Table Description of Work Environment Variables

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Physical conditions and work facilities	LK1	My workspace has a comfortable layout and supports work activities.	7	21	27	115	53	3.83	Tall
	LK2	Work facilities such as lighting and cleanliness of the work space are well maintained.	8	22	32	112	49	3.77	Tall
Availability and Feasibility of Work Equipment	LK3	The work equipment I use is available in sufficient quantities and helps with daily work.	9	19	33	116	46	3.77	Tall
Quality of Relationships and Communication between Employees	LK4	I have a good working relationship with my coworkers	2	31	26	120	44	3.78	Tall
Recognition, Leadership, and Workload Management	LK5	My leader gives recognition for the work results I have achieved.	5	28	38	112	40	3.69	Tall
Average								3.77	Tall

Based on table show that respondents' responses regarding the work environment has an average value of 3.77 (high) which indicates that the average respondent gave an agreeing response to the statement in the questionnaire, this showsPT. PLN (Persero) UID East

Kalimantan and North Kalimantan have a high work environment. Respondents' responses regarding physical conditions and work facilities were the highest indicators, with a mean value of 3.83 (high). This indicates that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan They felt the workspace had a comfortable layout and supported work activities. Furthermore, responses regarding recognition, leadership, and workload management received a mean score of 3.69, the lowest indicator in this variable, but in the high category. This indicates that leadership PT. PLN (Persero) UID East Kalimantan and North Kalimantan provide recognition for the work results achieved by employees.

a. Description of Job Satisfaction Variables

Table Description of Job Satisfaction Variables

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Work environment	KEP1	I feel comfortable working in the current work environment.	4	30	34	114	41	3.71	Tall
Promotion	KEP2	I feel satisfied because the company provides fair promotion opportunities to all employees.	13	17	35	108	50	3.74	Tall
	KEP3	Promotions in the company are based on employee performance	10	25	27	119	42	3.71	Tall
Award	KEP4	The appreciation from the company encourages me to improve my performance.	9	25	31	116	42	3.70	Tall
Supervision	KEP5	I feel that the supervision carried out does not burden me.	12	24	36	116	35	3.62	Currently

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Average								3.69	Tall

Based on table show that respondents' responses regarding job satisfaction has an average value of 3.69 (high) which indicates that the average respondent gave an agreeable response to the statement in the questionnaire, this shows that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan have high job satisfaction. Respondents' responses regarding promotions were the highest indicator, with a mean value of 3.74 (high). This indicates that employees feel satisfied because PT. PLN (Persero) UID East Kalimantan and North Kalimantan providing fair promotion opportunities to all employees. Then, responses regarding supervision obtained a mean value of 3.62 (moderate), making it the lowest indicator in this variable. This indicates that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan feel that the supervision carried out is quite burdensome.

b. Description of Employee Performance Variables

Table Description of Employee Performance Variables

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Punctuality in completing work	KK1	I can manage my time well to complete work without delay.						3.81	Tall
Work commitment	KK2	I show full dedication in completing every job given.						3.86	Tall
Effectiveness in the Use of Organizational Resources	KK3	I utilize company resources (time, funds, or equipment) efficiently.						3.77	Tall
Quality of Work	KK4	My work results always meet the standards set by the company.						3.70	Tall

Indicator	Code	Statement	STS	TS	N	S	SS	Mean	Criteria
Quantity of Work	KK5	I can complete a number of targeted jobs within a certain time.						3.81	Tall
Average								3.79	Tall

Based on table show that respondents' responses regarding employee performance has an average value of 3.79 (high) which indicates that the average respondent gave an agreeing response to the statement in the questionnaire, this shows that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan have high performance. Respondents' responses regarding work commitment were the highest indicator, with a mean value of 3.86 (high). This means that employees PT. PLN (Persero) UID East Kalimantan and North Kalimantan Demonstrating full dedication to completing every task assigned. Furthermore, responses regarding work quality obtained a mean score of 3.70, the lowest indicator in this variable, but in the high category. This indicates that employee work results consistently meet the standards set by the company. PT. PLN (Persero) UID East Kalimantan and North Kalimantan.

4. Conclusion

Based on several analytical studies and discussions in this research, the following conclusions can be drawn:

1. Career development has a significant positive effect on job satisfaction. This indicates that the better the career development programs (such as promotions) implemented by PT. PLN (Persero) UID East Kalimantan and North Kalimantan, the higher the job satisfaction experienced by employees.
2. Environment Work has a significant positive effect on job satisfaction. This shows that improving the quality of the work environment will significantly and directly increase employee job satisfaction PT. PLN (Persero) UID East Kalimantan and North Kalimantan
3. Development career has a significant positive effect on employee performance. This means that career quality improvement directly increase employee productivity and work results, where the better the career development system, the higher the employee performance at PT PLN (Persero)UID East Kalimantan and North Kalimantan
4. Work environment has a significant positive effect on employee performance. This result means that in creasingly better, more comfortable and conducive working environment

at PT PLN (Persero) UID East Kalimantan and North Kalimantan, employee performance will increase significantly and measurably

5. Job satisfaction has a significant positive effect on employee performance. This means that the higher the level of employee satisfaction, enjoyment, or fulfillment of their needs in their work at PT PLN (Persero) UID East Kalimantan and North Kalimantan, the more their performance and productivity will significantly increase.
6. Job satisfaction can mediate the significant positive influence of career development on employee performance. This result means that career development provided by PT PLN (Persero) UID East Kalimantan and North Kalimantan will make employees feel satisfied, this satisfaction will then encourage employees to work harder, thereby improving performance.
7. Job satisfaction can mediate the significant positive influence of the work environment on employee performance. This finding suggests that a safe, comfortable, and harmonious work environment at PT PLN (Persero) UID East Kalimantan and North Kalimantan will create a sense of satisfaction, which in turn encourages optimal employee performance.

5. References

Journals:

- Aljumah, A. (2023). The impact of extrinsic and intrinsic motivation on job satisfaction: The mediating role of transactional leadership. *Cogent Business and Management*, 10(3). <https://doi.org/10.1080/23311975.2023.2270813>
- Anggereni, N. W. E. S. (2019). Pengaruh Pelatihan Terhadap Kinerja Karyawan Pada Lembaga Perkreditan Desa (Lpd) Kabupaten Buleleng. *Jurnal Pendidikan Ekonomi Undiksha*, 10(2), 606. <https://doi.org/10.23887/jjpe.v10i2.20139>
- Ardian, Z., Alhadi, A. C., & Panji, G. M. (2023). Employee performance assessment system based on smart method (case study: Banda Aceh Military Court I-01). *AIP Conference Proceedings*, 2484. <https://doi.org/10.1063/5.0113638>
- Arifin, A. H., Raza, H., Saputra, J., Puteh, A., & Sofyan. (2020). The mediating role of organizational commitment: A supply chain management for examining the effect of quality of work life and job satisfaction on employee performance. *International Journal of Supply Chain Management*, 9(4), 255–256.
- Barrichello, A., Morano, R. S., Feldmann, P. R., & Jacomossi, R. R. (2020). The importance of education in the context of innovation and competitiveness of nations. *International Journal of Education Economics and Development*, 11(2), 204–224. <https://doi.org/10.1504/IJEED.2020.106587>

- Baumann, C., & Winzar, H. (2016). The role of secondary education in explaining competitiveness. *Asia Pacific Journal of Education*, 36(1), 13–30. <https://doi.org/10.1080/02188791.2014.924387>
- Becker, J.-M., Cheah, J.-H., Ghollamzadeh, R., Ringle, C., & Sarstedt, M. (2022). PLS-SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, 35. <https://doi.org/10.1108/IJCHM-04-2022-0474>
- Berhanu, K. Z. (2023). Mediating role of job satisfaction on the relation between staff development and employee performance. *Cogent Business & Management*, 10(1).
- Boštjančič, E., & Petrovčič, A. (2019). Exploring the relationship between job satisfaction, work engagement and career satisfaction: The study from public university. *Human Systems Management*, 38(4), 411–422. <https://doi.org/10.3233/HSM-190580>
- Dede, F., & Kuşaklı, S. (2022). AN UP-TO-DATE OVERVIEW OF THE MOTIVATION-PERFORMANCE RELATIONSHIP : A STUDY ON THE BOSNIAN BANKING SECTOR. 17(3), 96–112. <https://doi.org/10.2478/jeb-2022-0017>
- Dustmann, C., & Schoenberg, U. (2008). Why does the German apprenticeship system work? In *Skill Formation: Interdisciplinary and Cross-National Perspectives* (Vol. 9780521867528, pp. 85–108). Cambridge University Press. <https://doi.org/10.1017/CBO9780511499593.005>
- Faez, F., Hamdan, A., & Abdulrasool, F. (2023). The Impact of Workplace Environment on the employee's Performance. In *Contributions to Management Science: Vol. Part F1640* (pp. 519–524). doi:10.1007/978-981-99-6101-6_37
- Gachunga, H. G., & Wamoto, E. (2012). The effect of career development activities on employee performance: A case study of world agroforestry centre. *International Journal of Knowledge, Culture and Change Management*, 11(6), 121–142. <https://doi.org/10.18848/1447-9524/cgp/v11i06/50215>
- Harefa, P., & Telaumbanua, A. (2023). Pengaruh pengembangan karir terhadap kinerja pegawai pada Kantor Kesyahbandaran dan Otoritas Pelabuhan Kelas IV Gunungsitoli. *JESYA: Jurnal Ekonomi & Ekonomi Syariah*, 6(1), 1001–1009.
- Hudoyo, A. S., Nurjanah, S., & Purwana, D. (2018). The importance of strengthening employee performance through leadership and engagement, with work motivation as an intermediary. Proceedings of the 31st International Business Information Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020, 1369–1381. *Human Development Insights*. (2024).
- Islamy, F. J. (2019). Pengaruh Kepuasan Kerja Kayawan Terhadap Kinerja Dosen Tetap Sekolah Tinggi Ilmu Ekonomi Indonesia Membangun (Studi Kasus pada Dosen Tetap

Sekolah Tinggi Ilmu Ekonomi Indonesia Membangun Tahun 2019). *Jurnal Indonesia Membangun*, 18(2), 30–44.

Jain, A., Mishra, S., & Goyal, R. (2021). Analysis of Career Development Opportunities in IT Sectors in Jaipur. In *Lecture Notes in Networks and Systems* (Vol. 166). https://doi.org/10.1007/978-981-15-9689-6_80

Kartikawati, E., Muryati, M., & ... (2024). Pengaruh Pelatihan, Lingkungan Kerja dan Kecerdasan Emosional terhadap Kinerja Melalui Kepuasan Kerja sebagai Variabel Intervening di Inspektorat Kota *JIM (Jurnal Ilmu ...)*, 9(3), 203–218.

Karunia, R. L., Darmawansyah, D., Prasetyo, J. H., Triyadi, T., & Ariawan, J. (2023). The effectiveness of career development in mediating the influence of the working environment and training towards the performance of employee. *International Journal of Applied Economics, Finance and Accounting*, 17(2), 202–210. <https://doi.org/10.33094/ijaefa.v17i2.1098>

Books:

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.

Hania, I. N. (2022). *Pengaruh pengembangan karir terhadap kinerja pegawai di Kantor Pelayanan Kekayaan Negara dan Lelang (KPKNL) Kota Makassar* (Skripsi). Universitas Muhammadiyah Makassar.