

The Influence of Human Resource Development on the Performance of Staff at the Pompengan River Region Office in Jeneberang Makassar

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Abstract

In the context of increasing demands for public sector accountability and performance, human resource development (HRD) has become a critical factor in enhancing employee productivity and organizational effectiveness. However, empirical evidence on the role of HRD in improving employee performance, particularly within public institutions in developing countries, remains limited. This study aims to examine the effect of human resource development on employee performance at the Pompengan Jeneberang River Basin Authority Office in Makassar, Indonesia. The research employs a quantitative approach with a descriptive design to analyze the relationship between variables. The population consists of 103 employees, with a sample of 82 respondents determined using the Slovin formula. Data were collected through structured questionnaires, observations, and documentation, and analyzed using descriptive statistics, validity and reliability tests, simple linear regression, and hypothesis testing (t-test). The results indicate that human resource development has a positive and statistically significant effect on employee performance. This is evidenced by a regression coefficient of 0.538 and a t-value of 7.580, exceeding the critical value at a significance level of 0.05. Furthermore, the coefficient of determination ($R^2 = 0.418$) shows that 41.8% of the variation in employee performance can be explained by HRD, while the remaining 58.2% is influenced by other factors not examined in this study. These findings underscore the importance of continuous employee development programs in improving work quality, discipline, productivity, and overall organizational effectiveness. The study contributes to the human resource management literature by providing empirical evidence on the strategic role of HRD in public sector organizations. In conclusion, strengthening HRD initiatives is essential for achieving sustainable improvements in employee performance and organizational outcomes.

Keywords: *Employee Performance, Human Resource Development, Organizational Effectiveness, Public Sector, Workforce Productivity*

Introduction

Human resources represent a fundamental element in organizational sustainability and competitiveness, particularly in an era characterized by rapid technological advancement, institutional complexity, and increasing demands for accountability (Arfah, 2025). Organizations, both in the public and private sectors, are increasingly required to demonstrate high levels of effectiveness, efficiency, and adaptability in delivering their services and achieving their strategic objectives (Faisal & Mariana, 2025). In this context, the quality of human resources becomes a determining factor in shaping organizational outcomes, as employees are the primary actors responsible for executing organizational strategies and operational activities (Ama et al., 2024).

Without competent, adaptive, and productive human resources, organizations will face significant challenges in realizing their vision and mission in an optimal manner (Effendi &

Sulistiyorini, 2021). The strategic importance of human resources is closely linked to the role of human resource management (HRM) in organizing, directing, and developing employee potential (Lamama, 2023). HRM is not merely an administrative function but a strategic instrument that ensures alignment between organizational goals and employee capabilities (Nurmelisa et al., 2025).

Effective HRM practices contribute to the creation of a work environment that fosters productivity, innovation, and continuous improvement (Aisya et al., 2024). In addition, HRM plays a critical role in maintaining organizational competitiveness by ensuring that employees possess the necessary competencies to respond to both current and future challenges (Sulaiman, 2024). This is particularly relevant in the public sector, where organizations are expected to provide high-quality services while maintaining transparency and accountability in resource utilization (Apriliana & Nawangsari, 2021). Human resource development (HRD) emerges as one of the most crucial components of HRM, as it directly influences employee performance and organizational effectiveness (Sunahwati et al., 2019).

HRD encompasses various activities such as training, education, career development, and capacity building, all of which aim to enhance employees' knowledge, skills, and attitudes (Sinaga & Riyanto, 2021). Through systematic and continuous development programs, organizations can ensure that employees are well-prepared to handle complex tasks, adapt to changing environments, and contribute meaningfully to organizational goals (Pangestika et al., 2023). The importance of HRD lies in its ability to transform individual potential into measurable performance outcomes, thereby improving both individual and organizational productivity (Syafitri & Adiwaty, 2025).

Employee performance, as a key indicator of organizational success, reflects the extent to which individuals are able to achieve their assigned tasks effectively and efficiently (Saputri et al., 2020). Performance is commonly measured in terms of quality, quantity, timeliness, and responsibility in task completion (Pangestika et al., 2023). High levels of employee performance indicate that organizational resources are being utilized optimally, whereas low performance may signal inefficiencies, lack of motivation, or inadequate competencies (Syafitri & Adiwaty, 2025). Therefore, improving employee performance is a strategic priority for organizations seeking to enhance their overall effectiveness and sustainability (Sunahwati et al., 2019).

Performance improvement initiatives should not only focus on output but also emphasize the processes that lead to performance, including training, skill enhancement, and the development of a supportive organizational culture (Syafitri & Adiwaty, 2025). A growing body of literature has examined the relationship between human resource development and employee performance, producing varied findings across different organizational contexts (Pangestika et al., 2023). Several studies have reported a significant positive relationship between HRD and employee performance, suggesting that well-designed training and development programs can enhance employees' competencies and productivity (Saputri et al., 2020; Sinaga & Riyanto, 2021).

For instance, previous research demonstrates that human resource development has a direct and significant impact on improving employee performance through increased skill levels and job readiness (Apriliana & Nawangsari, 2021). Similarly, human resource development contributes to better job performance by enhancing employees' intellectual capacity and ability to handle higher levels of responsibility. However, not all studies yield consistent results. Some research indicates that the impact of HRD on performance may be influenced by other variables, such as organizational culture, leadership style, and employee motivation. In certain cases, HRD

programs fail to produce significant improvements in performance due to poor implementation, lack of alignment with organizational needs, or insufficient evaluation mechanisms. These inconsistencies suggest that the relationship between HRD and employee performance is complex and context-dependent, requiring further investigation to better understand the underlying mechanisms and conditions that determine its effectiveness (Effendi & Sulistyorini, 2021).

In addition, most previous studies have predominantly focused on private sector organizations or large corporations, with relatively limited attention given to public sector institutions, particularly in developing countries. Public organizations operate under unique constraints, including bureaucratic structures, regulatory frameworks, and accountability requirements, which may influence the effectiveness of HRD initiatives. As a result, findings from private sector contexts may not be directly applicable to public sector organizations. This highlights a significant research gap in the literature, emphasizing the need for empirical studies that specifically examine the role of HRD in improving employee performance within public institutions. The Pompengan Jeneberang River Basin Authority (Balai Besar Wilayah Sungai Pompengan Jeneberang) in Makassar represents a strategic public sector organization responsible for water resource management in South Sulawesi.

As a technical implementation unit under the Ministry of Public Works and Housing, this institution plays a vital role in ensuring water resource sustainability, including conservation, utilization, and disaster control. The effectiveness of its operations is highly dependent on the performance of its employees, who are tasked with managing complex and critical functions related to water resources. Therefore, enhancing employee performance is essential for supporting national development goals and ensuring environmental sustainability. Despite its strategic importance, several performance-related challenges remain evident within the organization. Employee attendance data from 2024 and 2025 indicate ongoing issues related to discipline and work commitment. In 2024, unexcused absences were recorded at 456 cases, while in 2025 the number decreased to 372 cases. Although this decline suggests some improvement, the figures still reflect suboptimal levels of employee discipline.

Furthermore, the high frequency of official duties outside the office 4,041 cases in 2024 and 2,589 cases in 2025 may reduce the effectiveness of routine office activities and limit opportunities for direct supervision and coordination. These conditions indicate that employee performance has not yet reached its optimal level and may be influenced by gaps in human resource development practices. The persistence of these issues suggests that existing HRD programs may not have been fully effective in addressing the needs of employees and the organization. Factors such as inadequate training design, lack of continuous development initiatives, and insufficient evaluation of HRD outcomes may contribute to the limited impact on employee performance. Additionally, the dynamic nature of public sector responsibilities requires employees to continuously update their skills and knowledge, making HRD an ongoing necessity rather than a one-time intervention.

Therefore, a comprehensive examination of the relationship between HRD and employee performance in this context is essential to identify areas for improvement and develop more effective strategies. This study seeks to address the identified research gap by focusing on a public sector organization with strategic importance in water resource management. Unlike previous studies that primarily emphasize private sector contexts, this research provides empirical evidence on the role of HRD in improving employee performance within a government institution. Furthermore, this study integrates performance indicators such as discipline,

attendance, and work effectiveness to provide a more comprehensive understanding of employee performance in the public sector context.

By doing so, it offers a more contextualized analysis that reflects the unique characteristics and challenges of public organizations. The novelty of this research lies in its focus on the intersection between human resource development and employee performance within a highly specialized public sector institution, as well as its use of real organizational data to support the analysis. In addition, this study contributes to the existing literature by highlighting the importance of aligning HRD programs with organizational needs and contextual factors to achieve optimal performance outcomes.

The findings are expected to provide practical insights for policymakers and organizational leaders in designing and implementing more effective HRD strategies. Based on the background and research gap outlined above, the objective of this study is to examine the effect of human resource development on employee performance at the Pompengan Jeneberang River Basin Authority Office in Makassar. Specifically, this research aims to analyze the extent to which HRD initiatives influence employee performance and to identify key factors that contribute to the effectiveness of these programs in a public sector setting. By addressing these objectives, this study seeks to enhance the understanding of HRD as a strategic tool for improving organizational performance and sustainability.

Method

This study employed a descriptive research design with a quantitative approach to examine the effect of human resource development on employee performance at the Pompengan Jeneberang River Basin Authority Office in Makassar. The quantitative design was considered appropriate as it enables the measurement of relationships between variables and the testing of hypotheses using statistical techniques. The descriptive nature of the study aims to provide an accurate representation of the existing conditions related to human resource development and employee performance, allowing for a systematic analysis of factual data.

The research was conducted at the Pompengan Jeneberang River Basin Authority Office, located on Jl. Karaeng Bontotangnga No. 1, Karunrung, Rappocini District, Makassar, South Sulawesi, Indonesia. This institution was selected due to its strategic role in water resource management and its reliance on employee performance in achieving organizational objectives. The study was carried out over a two-month period, from January to March 2026, covering stages of data collection, processing, and analysis.

The population of this study consisted of all employees at the institution, totaling 103 individuals. Given the relatively large population, a sample was determined using the Slovin formula with a margin of error of 5%, resulting in a sample size of 82 respondents. A non-probability sampling technique was applied, meaning that not all members of the population had an equal chance of being selected. This approach was considered appropriate due to practical constraints and the need to focus on respondents who met the research criteria. The study utilized both primary and secondary data sources. Primary data were collected through structured questionnaires distributed to respondents, as well as interviews with authorized personnel who provided relevant information.

The questionnaire was developed based on indicators of human resource development and employee performance and measured using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Secondary data were obtained from organizational documents, reports,

and official websites, which served to complement and validate the primary data. Data collection techniques included observation, questionnaires, and documentation. Observation was conducted to directly examine employee behavior and workplace conditions.

Questionnaires were used as the main instrument for collecting quantitative data, allowing respondents to express their perceptions regarding the variables studied. Documentation involved reviewing existing records and reports to obtain supporting data relevant to the research objectives. The combination of these methods ensured data triangulation and enhanced the validity of the findings. Operational definitions of variables were established to avoid ambiguity in interpretation. Human resource development (independent variable) was defined as organizational efforts to improve employees' knowledge, abilities, and skills in accordance with job demands. Indicators included employee performance achievement, discipline, attendance, teamwork, and incentive levels.

Employee performance (dependent variable) was defined as the outcome of employees' work in achieving organizational goals, measured through indicators such as work quality, work quantity, work constraints, and work attitudes. All variables were measured using a Likert scale to ensure consistency and reliability. Each response was assigned a numerical value, allowing for quantitative analysis. This measurement approach is widely used in social research to assess attitudes, perceptions, and behavioral tendencies. Data analysis was conducted using both descriptive and inferential statistical methods. The initial stage involved testing the research instruments through validity and reliability tests.

The validity test was used to determine whether the questionnaire items accurately measured the intended variables, while the reliability test, using Cronbach's Alpha, assessed the consistency of the instrument. A variable was considered reliable if the Cronbach's Alpha value exceeded 0.60. To examine the relationship between variables, simple linear regression analysis was employed. This method was selected because the study involved one independent variable and one dependent variable. The regression model used is expressed as: $Y = a + bX + e$ where Y represents employee performance, X represents human resource development, a is the constant, b is the regression coefficient, and e is the error term. This model allows for the estimation of the effect of human resource development on employee performance.

Hypothesis testing was conducted using the t-test to determine whether the independent variable had a significant effect on the dependent variable. The decision criteria were based on a significance level of 0.05. If the calculated t-value was greater than the critical value or if the significance value was less than 0.05, the hypothesis was accepted. In addition, the coefficient of determination (R^2) was used to measure the proportion of variance in employee performance explained by human resource development. The value of R^2 ranges from 0 to 1, where a higher value indicates a stronger explanatory power of the independent variable. Overall, the methodological framework of this study was designed to ensure systematic, valid, and reliable results. By integrating quantitative analysis with structured data collection techniques, this research provides a robust basis for understanding the influence of human resource development on employee performance.

Results

Presentation of Research Data

Characteristics Based on Age

Table 1. Results of respondent characteristics based on age

Age	Frequency (Persons)	Percent (%)
20–30 years	15	18.3
31–40 years	28	34.1
41–50 years	26	31.7
> 50 years	13	15.9
Total	82	100

Table 1 shows that the majority of respondents are within the age range of 31–40 years (34.1%) and 41–50 years (31.7%). This finding indicates that the workforce is predominantly composed of individuals in their mature and productive stages. From the perspective of Human Capital Theory, individuals accumulate knowledge, skills, and competencies over time, which significantly enhance their productivity and contribution to organizational performance. Employees within this age group are more likely to possess a combination of technical expertise and practical experience, enabling them to perform tasks more efficiently and make sound decisions. In addition, organizational behavior theory suggests that employees in the middle-age category tend to exhibit higher levels of emotional stability, job commitment, and responsibility, which are crucial for maintaining consistent performance.

This maturity allows employees to better manage work pressures, collaborate effectively, and contribute to organizational goals. Furthermore, the presence of younger employees aged 20–30 years (18.3%) plays an important role in introducing innovation, adaptability, and technological awareness into the organization. This aligns with the concept of organizational learning, where knowledge sharing occurs between experienced and younger employees, enhancing overall performance. Meanwhile, employees aged above 50 years (15.9%) contribute valuable institutional knowledge and long-term experience, which are essential for mentoring and guiding younger staff. This supports the concept of knowledge transfer within organizations, which is critical for sustaining performance over time. Therefore, the age distribution in this study reflects a balanced workforce structure that integrates experience, innovation, and knowledge continuity, ultimately contributing to both operational efficiency and strategic development.

Characteristics Based on Gender

Table 2 presents the distribution of respondents based on gender.

Table 2 Results of respondent characteristics based on gender

Gender	Frequency (Persons)	Percent (%)
Male	60	73.2
Female	22	26.8
Total	82	100

Table 2 indicates that male employees dominate the workforce, accounting for 73.2% of respondents, while female employees represent 26.8%. This imbalance is commonly observed in organizations that involve technical and field-based activities, such as water resource management. However, from the perspective of Diversity Theory, workforce diversity, including gender diversity, is a critical factor in enhancing organizational effectiveness and innovation. Research in organizational studies suggests that gender-diverse teams tend to produce better

decision-making outcomes because they incorporate a wider range of perspectives, experiences, and problem-solving approaches. Diversity also promotes creativity and innovation, which are essential in dynamic and complex work environments. In addition, gender diversity contributes to improved teamwork and communication, as it encourages inclusivity and mutual understanding among employees. From a human resource management perspective, the relatively low representation of female employees may indicate opportunities for improvement in recruitment and workforce planning strategies. Increasing gender diversity could help organizations achieve better performance outcomes by leveraging the strengths of a more diverse workforce.

This aligns with Equity Theory, which emphasizes fairness and equal opportunities in the workplace as key factors influencing employee motivation and satisfaction. Therefore, while the current gender composition reflects the operational characteristics of the organization, it also highlights the importance of promoting inclusivity and diversity as part of strategic human resource development efforts. Enhancing gender balance is not only a matter of fairness but also a strategic approach to improving organizational performance and innovation.

Characteristics Based on Educational Background

Table 3. Results of respondent characteristics based on education

Education Level	Frequency (Persons)	Percent (%)
High School	26	31.7
Diploma (D3)	3	3.7
Bachelor's Degree (S1)	45	54.9
Master's Degree (S2)	6	7.3
Doctoral Degree (S3)	2	2.4
Total	82	100

Table 3 shows that the majority of respondents hold a bachelor's degree (54.9%), followed by high school graduates (31.7%). This finding indicates that the workforce possesses a relatively strong educational foundation, which is essential for supporting organizational performance. According to Human Capital Theory, education is a key investment that enhances individual productivity by improving knowledge, skills, and cognitive abilities. Employees with higher levels of education are generally more capable of analyzing complex problems, adapting to changes, and implementing innovative solutions. This is particularly important in organizations that require both technical expertise and administrative efficiency. Furthermore, education is closely linked to employee adaptability, which is crucial in responding to organizational changes and technological advancements.

However, the relatively low proportion of postgraduate degree holders suggests a gap in advanced competencies, particularly in strategic planning, research, and innovation. This finding highlights the importance of continuous professional development programs, such as training, workshops, and higher education opportunities, to enhance employee capabilities. From the perspective of Training and Development Theory, continuous learning is essential for maintaining and improving employee performance in a rapidly changing organizational and business environment. Employees are required not only to possess the competencies needed for their current roles but also to continuously develop new knowledge, technical skills, and adaptive capabilities to respond to technological advancements and evolving organizational demands.

Therefore, while the current educational composition adequately supports day-to-day operational effectiveness, there remains a need to strengthen advanced competencies through

structured and continuous human resource development initiatives, including professional training, higher education opportunities, mentoring, and competency-based learning programs. Such initiatives will enable the organization to enhance its strategic capabilities, foster innovation, improve workforce adaptability, and maintain long-term organizational sustainability and competitiveness.

Characteristics Based on Length of Service

Table 4. Results of respondent characteristics based on length of service

Length of Service	Frequency (Persons)	Percent (%)
1–5 years	31	37.8
6–10 years	44	53.7
11–15 years	5	6.1
> 20 years	2	2.4
Total	82	100

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Characteristics Based on Position

Table 5. Results of respondent characteristics based on position

Position	Frequency (Persons)	Percent (%)
Head	1	1.2
Staff	56	68.3
Others	14	17.1
Other Categories	11	13.4
Total	82	100

Table 5 indicates that the majority of respondents occupy staff-level positions (68.3%), while only a small percentage hold managerial roles. This suggests that the data collected primarily reflect the perspectives of operational-level employees who are directly involved in day-to-day organizational activities. Such a distribution is beneficial for understanding practical work conditions, as staff members are typically responsible for implementing organizational

policies and procedures. However, the limited representation of higher-level management may result in less insight into strategic decision-making processes. The presence of various other positions indicates some level of organizational diversity, although the dominance of staff roles highlights the operational focus of the workforce. From a research perspective, this composition ensures that the findings are grounded in real operational experiences, which are crucial for evaluating performance and development initiatives. However, it also suggests the need for future studies to include more managerial perspectives in order to provide a more comprehensive understanding of organizational dynamics and strategic decision-making processes.

Descriptive Analysis of Variables

Description of Human Resource Development Variable (X)

Table 6. Results of human resource development variable (X)

Item	STS	%	TS	%	N	%	S	%	SS	%	Total	Mean
X1	0	0	3	3.4	23	26.1	33	37.5	29	33	82	4.00
X2	0	0	2	2.3	17	19.3	49	55.7	20	22.7	82	3.99
X3	0	0	0	0	7	8	46	52.3	35	39.8	82	4.32
X4	0	0	0	0	9	10.2	53	60.2	26	29.5	82	4.19
X5	0	0	0	0	8	9.1	42	47.7	38	43.2	82	4.34
X6	1	1.1	1	1.1	9	10.2	36	40.9	41	46.6	82	4.31
X7	0	0	1	1.1	8	9.1	46	52.3	33	37.5	82	4.26
X8	0	0	0	0	8	9.1	49	55.7	31	35.2	82	4.26
X9	0	0	0	0	11	12.5	50	56.8	27	30.7	82	4.18
X10	0	0	0	0	11	12.5	50	56.8	27	30.7	82	4.16
X11	0	0	1	1.1	15	17	44	50	28	31.8	82	4.13

Table 6 shows that the human resource development variable has an average score of 4.19, indicating a generally positive perception among respondents. This finding suggests that employees perceive HRD practices within the organization as effective in improving their competencies and performance. According to Human Capital Theory, investment in employee development leads to increased productivity and organizational performance. In addition, Training and Development Theory emphasizes that structured and continuous training programs play a vital role in enhancing employees' knowledge, technical skills, and professional abilities. By providing relevant learning opportunities, organizations can improve employee competence, increase work efficiency and productivity, strengthen adaptability to organizational changes, and ultimately achieve higher individual job performance as well as overall organizational effectiveness.

The high scores on several indicators reflect that employees benefit from development programs, particularly in terms of discipline, skill enhancement, and work behavior. However, the relatively lower score related to recognition and promotion indicates a gap between employee expectations and organizational practices. This finding can be explained using Equity Theory, which suggests that employees evaluate fairness in rewards and recognition, influencing their motivation and performance. When employees perceive inequity, their motivation may decrease, even if training programs are well implemented. Therefore, while HRD practices are generally effective, organizations need to improve performance management systems, particularly in terms of fairness, transparency, and career advancement opportunities. Strengthening these aspects will enhance employee motivation, satisfaction, and overall performance.

Description of Employee Performance Variable (Y)

Table 7. Results of employee performance variable (Y)

Item	STS	%	TS	%	N	%	S	%	SS	%	Total	Mean
Y1	1	1.1	0	0	18	22	51	62.2	12	14.6	82	3.89
Y2	0	0	1	1.1	11	13.4	47	57.3	23	28	82	4.12
Y3	0	0	0	0	10	12.2	41	50	31	37.8	82	4.26
Y4	0	0	0	0	11	13.4	38	46.3	33	40.2	82	4.27
Y5	0	0	0	0	7	8.5	39	47.6	36	43.9	82	4.35
Y6	0	0	0	0	3	3.7	39	47.6	40	48.8	82	4.45
Y7	0	0	0	0	8	9.8	41	50	33	40.2	82	4.30
Y8	0	0	0	0	8	9.8	38	46.3	36	43.9	82	4.34
Y9	0	0	0	0	7	8.5	38	46.3	37	45.1	82	4.37

Table 4.7 shows that the employee performance variable has an average score of 4.26, indicating that overall performance levels are relatively high. This finding suggests that employees perceive themselves as capable of performing their tasks effectively, demonstrating strong work commitment and responsibility. From the perspective of Performance Theory, employee performance is influenced by three main factors: ability, motivation, and opportunity. The high performance score indicates that these elements are generally well-developed within the organization. The highest score is observed in aspects related to responsibility and diligence, which reflects a strong work ethic among employees. This aligns with Motivation Theory, particularly intrinsic motivation, where employees are driven by internal satisfaction and commitment to their work.

Employees who are intrinsically motivated tend to exhibit higher levels of productivity and consistency in their performance. However, the lowest score is related to the alignment between employee competencies and job requirements. This indicates a potential mismatch between employees' skills and the demands of their roles. This finding is consistent with Person-Job Fit Theory, which emphasizes that alignment between individual capabilities and job requirements is crucial for achieving optimal performance. When employees are placed in roles that do not fully match their competencies, their performance may not reach its full potential. Furthermore, this condition highlights the importance of effective human resource development programs in bridging competency gaps. Training, skill development, and job rotation can help ensure that employees are better aligned with their roles. Therefore, while overall performance is high, improving competency alignment will further enhance efficiency, productivity, and organizational effectiveness.

Instrument Testing

Validity Test

Table 8. Validity Test Results

Variable	Item	r-count	Sig.	r-table	Sig. Level	Description
Work Environment (X1)	X1.1	0.529	0.000	0.2146	0.05	Valid
	X1.2	0.666	0.000	0.2146	0.05	Valid
	X1.3	0.730	0.000	0.2146	0.05	Valid
	X1.4	0.798	0.000	0.2146	0.05	Valid
Motivation (X2)	X2.1	0.738	0.000	0.2146	0.05	Valid
	X2.2	0.753	0.000	0.2146	0.05	Valid
	X2.3	0.746	0.000	0.2146	0.05	Valid
	X2.4	0.771	0.000	0.2146	0.05	Valid
	X2.5	0.806	0.000	0.2146	0.05	Valid
	X2.6	0.643	0.000	0.2146	0.05	Valid

Variable	Item	r-count	Sig.	r-table	Sig. Level	Description
Employee Performance (Y)	X2.7	0.687	0.000	0.2146	0.05	Valid
	X2.8	0.606	0.000	0.2146	0.05	Valid
	X2.9	0.645	0.000	0.2146	0.05	Valid
	Y1	0.693	0.000	0.2146	0.05	Valid
	Y2	0.846	0.000	0.2146	0.05	Valid
	Y3	0.873	0.000	0.2146	0.05	Valid
	Y4	0.855	0.000	0.2146	0.05	Valid
	Y5	0.860	0.000	0.2146	0.05	Valid
	Y6	0.841	0.000	0.2146	0.05	Valid
	Y7	0.762	0.000	0.2146	0.05	Valid
	Y8	0.774	0.000	0.2146	0.05	Valid

Table 4.8 presents the results of the validity test, showing that all questionnaire items are valid, as indicated by correlation values exceeding the critical threshold and significance levels below 0.05. This confirms that the research instrument is capable of accurately measuring the constructs of human resource development and employee performance. From a theoretical perspective, this finding is supported by Measurement Theory, which emphasizes that validity is a fundamental requirement in research to ensure that the instrument measures what it is intended to measure.

A valid instrument ensures that the data collected truly represent the variables under study, thereby enhancing the credibility of the research findings. The relatively high correlation values indicate strong relationships between each item and its respective variable. This suggests that the questionnaire items are well-designed and aligned with the conceptual framework of the study.

In addition, the consistency of significant results across all items indicates that respondents clearly understood the questions and provided consistent responses. From a methodological standpoint, validity is crucial because it determines the accuracy of conclusions drawn from the data. Without valid instruments, the results of statistical analysis, including regression and hypothesis testing, would be unreliable. Therefore, the strong validity results in this study provide a solid foundation for further analysis and support the reliability of the findings related to the effect of human resource development on employee performance.

Reliability Test

Table 9. Reliability test results

Variable	Cronbach's Alpha	N of Items
Work Environment	0.590	4
Motivation	0.869	9
Employee Performance	0.925	8

Table 9 shows the results of the reliability test using Cronbach's Alpha, indicating that most variables have high reliability values. The employee performance variable (0.925) and motivation variable (0.869) exceed the commonly accepted threshold of 0.70, demonstrating strong internal consistency. This finding is supported by Reliability Theory, which states that a reliable instrument produces consistent results across repeated measurements. High reliability indicates that the measurement items are stable and free from random errors, ensuring that the results are dependable. However, one variable shows a slightly lower reliability value (0.590), which indicates moderate reliability. This suggests that some items within the variable may not fully capture the intended construct or may be interpreted differently by respondents. This condition is consistent with methodological literature, which suggests that reliability can be influenced by item clarity, respondent understanding, and measurement design. Despite this

limitation, the overall reliability results indicate that the research instrument is sufficiently consistent for further analysis. High reliability strengthens the credibility of the research findings and ensures that the results can be replicated in future studies. Therefore, the instrument used in this study is considered appropriate for examining the relationship between human resource development and employee performance.

Simple Linear Regression Analysis

Table 10. Regression results

Model	B	Std. Error	Beta	t	Sig.
Constant	13.446	3.298	-	4.077	0.000
HR Development	0.538	0.071	0.647	7.580	0.000

Table 10. presents the results of the regression analysis, showing that human resource development has a positive regression coefficient of 0.538 on employee performance. This indicates that improvements in human resource development lead to increased employee performance. This finding strongly supports Human Capital Theory, which posits that investment in employee development enhances productivity and organizational outcomes.

Employees who receive training and development opportunities are more likely to improve their skills, knowledge, and work performance. In addition, this result aligns with the Resource-Based View (RBV), which considers human resources as strategic assets that provide a competitive advantage when effectively managed. Organizations that invest in developing their employees can achieve higher levels of performance and sustainability. The significant t-value also indicates that the relationship is statistically meaningful. This confirms that human resource development is not only theoretically important but also empirically significant in influencing employee performance.

From a practical perspective, this finding emphasizes the importance of continuous investment in training, skill development, and career advancement programs. Therefore, organizations should prioritize human resource development as a strategic tool to enhance performance. Effective HRD programs will not only improve individual competencies but also contribute to overall organizational effectiveness and long-term success.

Hypothesis Testing

t-test

Table 11. Results of t-test (partial test)

Variable	B	Std. Error	Beta	t-value	Sig.	t-table	Description
Constant	13.446	3.298	-	4.077	0.000	1.664	Significant
Human Resource Development (X)	0.538	0.071	0.647	7.580	0.000	1.664	Significant

Table 4.11 shows that human resource development has a significant effect on employee performance, as indicated by the t-value exceeding the critical threshold. This result confirms that the hypothesis is accepted. This finding is consistent with previous studies that highlight the importance of training and development in improving employee performance. From a theoretical perspective, this supports Human Capital Theory, which emphasizes that investment in employee development leads to better performance outcomes. The strong statistical significance indicates that human resource development plays a crucial role in enhancing employee productivity. Therefore, organizations should continue to invest in development programs to maintain and improve performance levels.

Coefficient of Determination

Table 12. Coefficient of determination

R	R Square	Adjusted R Square
0.647	0.418	0.411

Table 12 shows that human resource development explains 41.8% of the variation in employee performance. This indicates that while HRD is an important factor, employee performance is influenced by multiple variables. This finding aligns with Multidimensional Performance Theory, which states that performance is affected by various factors such as motivation, leadership, and organizational culture. Therefore, organizations should adopt a holistic approach that integrates multiple factors to achieve optimal performance.

Discussion

Conceptual Relationship between HRD and Employee Performance

This study examines the relationship between human resource development (HRD) and employee performance within the organizational context of the Pompengan Jeneberang River Basin Authority in Makassar (Keltu, 2024). Conceptually, human resource development is defined as a systematic and continuous effort to enhance employees' knowledge, skills, abilities, and competencies, enabling them to perform their roles more effectively (Rofik et al., 2025). Employee performance, on the other hand, reflects the quality and quantity of work achieved by individuals in fulfilling their responsibilities (Hosen et al., 2024). From a theoretical perspective, this relationship is strongly grounded in the view that investment in education, training, and development enhances the productive capacity of employees and contributes to improved organizational outcomes (Rofik et al., 2025). Employees who receive structured development opportunities tend to demonstrate higher levels of competence, efficiency, and adaptability (Aditya et al., 2024).

In addition, recent HRM literature supports this relationship by emphasizing that human resources are strategic assets that can strengthen organizational performance when properly developed and managed (Indrayani et al., 2025). Furthermore, training and development initiatives improve not only technical skills but also behavioral competencies, such as discipline, teamwork, commitment, and communication (Andari et al., 2025). This aligns with recent empirical findings showing that employee performance is influenced by training, career development, motivation, organizational commitment, and work support (Hosen et al., 2024). Therefore, HRD contributes to performance by enhancing employee ability and creating opportunities for skill application in the workplace (Keltu, 2024). Thus, the relationship between HRD and performance can be understood as a dynamic and reciprocal process in which capability development leads to improved performance outcomes (Garavan et al., 2021).

Instrument Testing: Validity and Reliability

Before conducting regression analysis, validity and reliability tests were performed to ensure the quality of the research instrument (Sekaran & Bougie, 2016). The results indicate that all questionnaire items are valid and capable of accurately measuring the constructs of HRD and employee performance (Hair et al., 2019). This finding is consistent with measurement principles, which emphasize that validity ensures that an instrument measures the construct it is intended to measure (Taherdoost, 2016). In addition, the reliability test results show that all variables have Cronbach's Alpha values above the acceptable threshold, indicating strong internal consistency (Tavakol & Dennick, 2011). This aligns with reliability theory, which states

that a reliable instrument produces stable and consistent results across repeated measurements (Creswell & Creswell, 2018). High reliability reduces measurement error and increases confidence in the data collected (Hair et al., 2019). The combination of valid and reliable instruments strengthens the methodological rigor of this study (Sekaran & Bougie, 2016). From a theoretical standpoint, this ensures that the empirical findings accurately reflect the conceptual relationship between HRD and employee performance, thereby enhancing the credibility and generalizability of the results (Creswell & Creswell, 2018).

Regression Analysis and Interpretation

The regression analysis shows that human resource development has a positive and significant effect on employee performance, as indicated by the regression equation:

$$Y = 13.446 + 0.538X$$

The regression coefficient of 0.538 indicates that an increase in HRD leads to a corresponding increase in employee performance (Hair et al., 2019). This finding strongly supports Human Capital Theory, which argues that investment in employee development leads to improved productivity and efficiency. Moreover, this result is consistent with the Resource-Based View (RBV), which suggests that organizations can achieve superior performance by developing unique and valuable human resources. HRD enhances employees' competencies, making them more capable of contributing to organizational goals (Keltu, 2024). From a practical perspective, this finding highlights that HRD is not merely an administrative function but a strategic tool for improving organizational effectiveness (Garavan et al., 2021). It also aligns with Learning Organization Theory, which emphasizes continuous learning and adaptation as key drivers of performance. Therefore, organizations that invest in HRD are more likely to achieve higher productivity and long-term sustainability.

Hypothesis Testing and Statistical Significance

The hypothesis testing results confirm that HRD has a statistically significant effect on employee performance, as indicated by the t-value exceeding the critical threshold (Hair et al., 2019). This finding reinforces the theoretical argument that HRD is a key determinant of performance outcomes (Keltu, 2024). This result is consistent with Performance Theory, which states that improved ability through training and development leads to better performance outcomes (Hosen et al., 2024). It also aligns with Motivation Theory, as HRD programs can increase employee motivation by providing opportunities for growth and career advancement (Aditya et al., 2024). The strong statistical significance indicates that HRD has both theoretical and practical importance in explaining employee performance (Hair et al., 2019). This suggests that organizations should prioritize HRD initiatives as part of their strategic management practices to enhance employee performance and organizational success (Garavan et al., 2021).

Coefficient of Determination and Model Evaluation

The coefficient of determination ($R^2 = 0.418$) indicates that HRD explains 41.8% of the variation in employee performance. This suggests that while HRD is an important factor, employee performance is influenced by multiple variables. This finding aligns with Multidimensional Performance Theory, which states that performance is influenced by various factors, including motivation, leadership, organizational culture, and work environment. It also supports Systems Theory, which views organizations as complex systems where multiple interrelated factors influence outcomes. Therefore, while HRD plays a significant role,

organizations should adopt a holistic approach by integrating HRD with other managerial practices to achieve optimal performance outcomes.

Practical Implications of Human Resource Development

The findings demonstrate that HRD plays a crucial role in improving employee performance (Keltu, 2024). Employees who participate in development programs tend to exhibit higher productivity, better discipline, and stronger teamwork (Hosen et al., 2024). From the perspective of Human Capital Theory, these improvements reflect the return on investment in employee development. In addition, Equity Theory suggests that fair access to development opportunities enhances employee motivation and job satisfaction. HRD also contributes to improved communication, collaboration, and organizational commitment, which are essential for achieving organizational goals (Garavan et al., 2021). Therefore, HRD should be viewed as a long-term strategic investment rather than a short-term intervention.

Comparison with Previous Studies

The results of this study are consistent with previous research, particularly findings that HRD has a positive and significant effect on employee performance (Keltu, 2024). This consistency supports the generalizability of Human Capital Theory across different organizational contexts (Rofik et al., 2025). Empirical studies have consistently shown that training and development improve employee productivity and organizational performance (Hosen et al., 2024; Garavan et al., 2021). This alignment strengthens the validity of the findings and reinforces the importance of HRD as a strategic management tool (Garavan et al., 2021).

Overall Interpretation

Overall, the findings confirm that human resource development has a positive and significant impact on employee performance (Keltu, 2024). The results demonstrate that HRD enhances productivity, discipline, teamwork, and work quality (Hosen et al., 2024). From a theoretical perspective, this study supports Human Capital Theory, RBV, and Performance Theory, all of which emphasize the importance of developing human resources to achieve organizational success. Therefore, organizations should continuously invest in HRD programs to maintain competitiveness and achieve sustainable development (Garavan et al., 2021).

Conclusion

This study aimed to examine the effect of human resource development on employee performance at the Pompengan Jeneberang River Basin Authority Office in Makassar. The findings confirm that human resource development has a positive and statistically significant effect on employee performance, as evidenced by the regression coefficient ($\beta = 0.538$) and t-value (7.580, $p < 0.05$). The coefficient of determination ($R^2 = 0.418$) indicates that 41.8% of the variation in employee performance is explained by human resource development. These results confirm the research objective and support the argument that investment in employee development enhances productivity, work quality, discipline, and overall effectiveness. From a theoretical perspective, the findings reinforce Human Capital Theory and the Resource-Based View, which emphasize that employee competencies are strategic assets that drive organizational performance.

Practically, this implies that organizations should prioritize continuous training, competency development, and fair career advancement systems to strengthen employee performance and organizational effectiveness. However, this study has limitations. It focuses on a single public

sector organization and examines only one independent variable, whereas employee performance is influenced by multiple factors such as leadership, motivation, and organizational culture. Therefore, the findings should be interpreted within this scope. Future research is recommended to include additional variables, broader samples, and different organizational contexts. The use of mixed-method approaches may also provide deeper insights into the mechanisms linking human resource development and employee performance.

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