Article

The impact of remuneration to performance in public university in Indonesia

Leni Rohida[*], **Ira Irawati**[*], **Oekan S. Abdoellah, Candradewini**

Postgraduate Program in Public Administration, Faculty of Social and Political Sciences, Universitas Padjadjaran, Bukit Dago Utara No. 25, Bandung 40135, Indonesia
* Corresponding authors: Leni Rohida, leni.rohida@unpad.ac.id; Ira Irawati, ira.irawati@unpad.ac.id

Abstract: The aim of this research is to explore the relationship between remuneration, job satisfaction, and employee performance. Remuneration, in this context, refer to a system synchronization that is based on performance appraisal result. In this, regard, the research employed a descriptive quantitative method, with a population comprising all University of Padjadjaran lecturers which were a total of 2,090. Furthermore, in order to gather the research sample, a probability sampling technique was employed. This technique was selected because of its reputation as the most general strategic sampling technique in quantitative research to achieve representativeness (1). The obtained result showed that there was a positive and significant relationship between the remuneration and job satisfaction of lecturers in University of Padjadjaran. Accordingly, a significant value of $0.000 < 0.05$ and a t-count value of $19.330 > 1.95$ was observed, meaning the H1 hypothesis in this research was accepted. It is also expedient to acknowledge that a positive and significant relationship was found between job satisfaction and the performance of the lecturers in study area. For this relationship, a significant value of $0.010 < 0.05$ and a t-count value of $5.676 > 1.95$ was found. These findings led to the acceptance of the H2 hypothesis proposed in this research. Similarly, the relationship between remuneration and the performance of the observed lecturers was found to be positive and significant. The observed significant value in this regard was $0.000 < 0.05$ and the t-count value was $4.057 > 1.95$, indicating that H3 hypothesis was also accepted. Lastly, the relationship between remuneration and employee performance mediated by job satisfaction of lecturer in University of Padjadjaran was explored, and it was found to also be positive and significant, with a significant value of $0.000 < 0.05$ and a t-count value of $5.429 > 1.95$. This indicated that the H4 hypothesis proposed in the research was accepted.

Keywords: remuneration; job satisfaction; employee performance; achievement

1. Introduction

Bureaucratic reform is an action that involves changing the basic principles of a system, in order to transform the structure of behaviour to be more effective. The scope of this of this measure extends beyond mere processes and procedures, rather, it also comprises structural level transformation, attitudes, and behaviors. Furthermore, financial reformation is an integral part of bureaucracy reformation, which is in accordance with the Regulation of the State Apparatus Utilization and Bureaucratic Reform No. 15/2008, and supported by the Presidential Regulation of Indonesia No. 81/2010. In this regard, the government had issued a guideline on bureaucratic reform grand design for 2010–2025, which was projected to serve as a blue print for the enactment of this measure until 2025.

Presently, the focus of the financial state reform agenda of Indonesia lies in

implementing performance budgeting. This approach ensures that government funds are directed, effective, efficient, and targeted for optimal outcomes. As a result, reformation in bureaucracy has the potential to effectively foster the development of clean government, free from corruption, collusion, and nepotism. It is also crucial to understand that the approach can significantly increase the public service quality rendered to the society as well as accountability in bureaucratic performance and increase public trust (Ngich, 2021).

To enhance government bureaucracy performance, bureaucratic reform practices must be aligned. Consequently, the government has initiated a pay-for-performance system, also known as remuneration, to incentivize improved performance. Remuneration serves as a tool to actualize the vision and mission of an organization in order to create a formal relationship between the organization and its employees. In the context of bureaucratic reform, remuneration is a harmonization system that is based on performance appraisal.

By employing this tool, each employee are motivated to optimize their performance, as the accepted value of remuneration is closely aligned with individual performance and the achievement of specific targets. As previously, stated, remuneration is a return or compensation for services rendered, which is paid to employees as result of their significant involvement in the achievement and realization of organizational goals (Aswathappa, 2013). Remuneration is the provision to a worker as a reward or appreciation for routine work or contribution to the organisation, company or institution where he or she works. This award is closely related to the world of work which is bureaucratically related to the labour payroll system (Barczak et al., 2021; Isharyanto Ciptowiyono, 2013; Leitão et al., 2019). This award is closely related to the world of work which is bureaucratically related to the labour payroll system.

The first research on remuneration was conducted by Robbins, who categorized the concept into four distinct forms namely external, direct, indirect, and non-financial remunerations (Robbins, 1982). Accordingly to Lawler, purposed a remuneration system that emphasized the correlation between employee performance and organizational performance (Lawler, 1991). This system ensured that each element of remuneration contributed to the enhancement of organizational performance, ultimately leading to the attainment of strategic goals.

Previous studies have established that employee performance, in this context, refers to the outcome of job-related actions (Dorta-Afonso et al., 2021; Giao et al., 2020). However, according to Bernardin that "Performance should be defined as the outcomes of work because they provide the strongest linkage to the strategic goals of the organization, customer satisfaction, and economic contributions" (Armstrong and Yusron, 2021). Bernardin and Russel in their study, defined performance as the record of outcomes produced on a specified job function or activity during a particular time period (Bernardin and Russel, 1998). It is also crucial to establish that the aggregate performance in the entirety of a job is tantamount to the summation also crucial to establish that the aggregate performance within each job function. This aspect has also been delineated as a (or mean) of the individual performance within each job function. This aspect has also been delineated as a collection of outcomes generated over a specific time interval. It does not pertain to the hierarchical status, personal attributes,

or proficiencies of the individual executing the task.

Remuneration system that emphasizes the correlation between employee performance and overall organizational performance (Emeka et al., 2015). Following this, Aswathappa, K., suggested that the remuneration component consists of wage & salary, individual incentives, fringe benefits (additional benefits, such as health insurance facilities, etc.), perquisites (additional income, official vehicles, and leave, etc.) and job context (responsibility, promotions, awards, division of labor, convenience at work, and teamwork) (Aswathappa, 2013). It has also been observed that remuneration fulfillment has the capability of potentially increasing both productivity and employee performance (Leitão et al., 2019). Additionally, this concept holds significant importance for employees as it signifies the compensation or salary received for their efforts. Based on this observation, previous studies have concluded that the payment of remuneration exerted a significant effect on employee performance (Derchi et al., 2021; Forson et al., 2021).

Performance cannot be achieved optimally if remuneration is not given proportionally (Davidescu et al., 2020; Simmonds et al., 2020). Remuneration is an employment benefit that can be in the form of salary, honorarium, fixed allowance, incentive, bonus or achievement, severance or pension (Islam and Purnamasari, 2019). According to the Rector Regulation of University of Padjadjaran Number 6 of 2020, performance incentives of the University of Padjadjaran are incentives given to lecturers as an appreciation for performance or contribution to University of Padjadjaran.

Researchers conducted a search related to research topics using the Scopus data base to see the extent to which research related to remuneration can improve lecturer performance, especially in the University of Padjadjaran campus environment. From the first search results, researchers entered the keywords "Remuneration" AND "Employee Performance" from 1985 to 2024 with a total of 47 documents. Research related to remuneration in improving employee performance is still often researched until now, such as research related to remuneration can encourage sustainable organizations (Tiwari and Srivastava, 2023), Correlation of job satisfaction with remuneration (Wahyuhadi et al., 2023), impact of employee performance on remuneration in kosovo (Sylqa and Neziraj, 2022). In addition, the second search was conducted by entering the keywords "Remuneration" AND "Lecturer Performance" in the Scopus database. From the search results, researchers only found 2 research documents in 2018 that discussed remuneration patterns in improving lecturer performance at Sultan Ageng Tirtayasa University (Suherman et al., 2019), then in 2019 with the provision of remuneration at Ambon Private University (Polnaya et al., 2018). From these various searches using the Scopus database using several keywords related to research topics, it can be said that research topics related to remuneration to improve employee performance or lecturer performance are still often researched. However, the research is still less researched in the campus environment to see remuneration for employees or lecturers, especially in Indonesia. The results of the mapping analysis using the biblioshiny application can be seen in **Figure 1**.
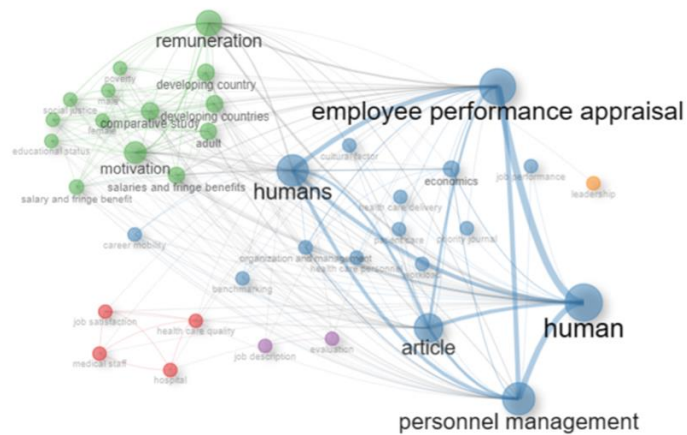
Figure 1. Co-occurrence Network. Source: processed by bibliosinhy from Scopus database, 2023.

This research is basically to understand the extent of the influence of remuneration provided by University of Padjadjaran every semester for improving lecturer performance. The basis is whether there is an effect of remuneration on lecturer performance at University of Padjadjaran or no effect? Thus there is a clear picture of the effect of remuneration on lecturer performance, and the dominant factors affecting performance.

2. Methodology

In this research, the method used is quantitative descriptive (Creswell, 2014). The method was used to investigate the relationship between remuneration, job satisfaction, and employee performance at University of Padjadjaran.

The study population consisted of a total of 2090 lecturers from University of Padjadjaran and a probability sampling technique, was employed as the sampling method. This sampling technique was selected because it is a widely used strategic approach in quantitative research, aimed at achieving representativeness (Teddlie and Yu, 2007). Accordingly, the sample was determined using the Slovin formula, as for the sample can be seen in **Table 1**.

$$h = \frac{N}{1 + (N \times d^2)}$$

where:

h = Number of Samples

N = Number of Population

d = Precision Value (accuracy) is 95%

Table 1. Sample Size of University of Padjadjaran Lecturers.

No.	Academic Rank	Population	Sample Proportion	Number of Samples
1	Professor	167	$(167/2,090) \times 335 = 26.76$	27
2	Associate Professor	417	$(417/2090) \times 335 = 66.83$	68
3	Senior-Assistant Professor	952	$(952/2090) \times 335 = 152.59$	152
4	Junior-Assistant Professor	278	$(278/2090) \times 335 = 44.55$	44

Table 1. (*Continued*).

No.	Academic Rank	Population	Sample Proportion	Number of Samples
5	Lecturer	276	(276/2090) × 335 = 44.23	44
	Total	2090	334.96	335

Source: Processed by authors, 2023.

Based on the research framework, the following hypothesis were formulated:

H1 Remuneration (X) has a significant influence on job satisfaction (Z);

H2 Job satisfaction (Z) significantly influence employee performance (Y);

H3 Remuneration (Z) exerts a tangible impact on employee performance (Y);

H4 Remuneration (Z) and job satisfaction (Z) significantly influence employee performance (Y).

It also expedient to acknowledge that the data analysis carried out in this research was conducted using structural equation modeling (SEM) with the assistance of Smart PLS software (Ammad et al., 2021; Sarstedt and Cheah, 2019). This approach was adopted to address the research questions and test the formulated hypotheses. Therefore, PLS is an appropriate technique to analyze latent variables with multiple indicators in the context of Structural Equation Modeling (SEM). The software helps to obtain adequate latent variable values for predictive purposes (Thakkar, 2020).

3. Result

3.1. Respondent data

In **Figure 2**, we can see that the number of Lecturer Functional Position at University of Padjadjaran amounted to 2090 people with details of the most Senior-Assistant Professor position with 952 people or around 45.6%. Then in the Associate Professor position as many as 417 people with a percentage of 20%, Junior-Assistant Professor 278 people or around 13.3%, Lecturer with 276 people or 13.2% and the number of professors as many as 167 people or only 8%. Our data sampling was conducted in 2019–2021.
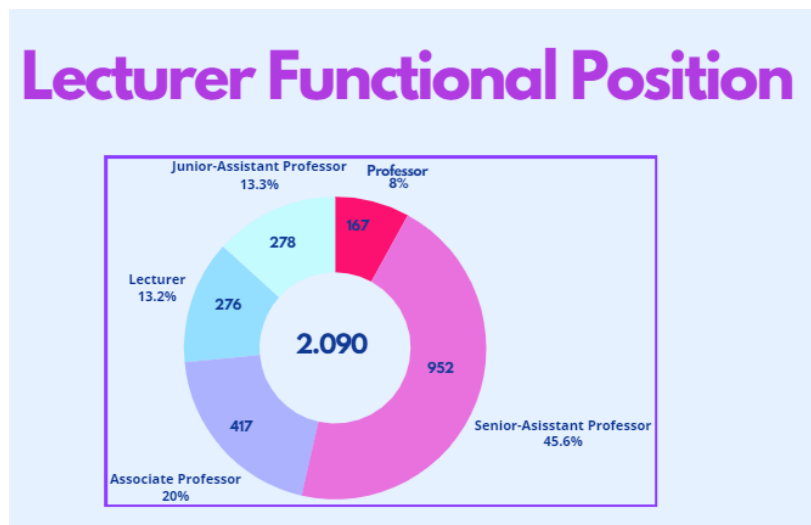

Figure 2. Lecturer Functional Position. Source: Processed by authors, 2023.

The distribution of respondents based on the rank/class of respondents shows that most of the respondents with Group III/d are 31.6%, Group III/c is 22.1%, Group IV/a is 20%, Group III/b is 18.2%, Group IV/e is 4.5%, and Group IV/d is 3.6%.

3.2. Descriptive analysis of research data

The results of the analysis of the distribution of questionnaire answers for each research variable can be presented as follows:

3.2.1. Results of data description of remuneration variable questionnaire

The author has carried out descriptive analysis results from respondents' answers to each indicator of the Remuneration variable. The results can be seen in **Table 2**.

Table 2. Results of descriptive analysis of remuneration variables.

NO	Items	Answer scores										Total	Mean item
		(1) TP		(2) J		(3) K		(4) SS		(5) S			
		F	%	F	%	F	%	F	%	F	%		
P1	How do you think the amount of incentives/remuneration for College Educators "X" is in accordance with the Chancellor's Regulation Number 6 of 2020	10	3.0%	23	6.9%	78	23.3%	145	43.3%	79	23.6%	335	3.78
P2	The performance incentives provided are in accordance with the position / level of your work.	13	3.9%	34	10.1%	101	30.1%	128	38.2%	59	17.6%	335	3.56
P3	Employee & family health insurance is appropriate and can improve the quality and performance of College Educators "X"	41	12.2%	59	17.6%	75	22.4%	124	37%	36	10.7%	335	3.16
P4	The amount of position allowance is in accordance with the level of structural position	15	4.5%	57	17%	78	23.3%	105	31.3%	80	23.9%	335	3.53
P5	The facilities provided by College "X" are adequate to improve the quality and performance of Educators	26	7.8%	52	15.5%	124	37%	99	29.6%	34	10.1%	335	3.19
P6	The environment (physical and non-physical) at College "X" has supported the performance of Educators	28	8.4%	78	23.3%	129	38.5%	70	20.9%	30	9.0%	335	2.99
Average		-	6.6%	-	15.1%	-	29.1%	-	33.4%	-	15.8%	-	3.37

Source: Processed by authors, 2023.

The table above shows that most of the respondents answered often (33.4%) and the lowest result was the answer very never, which amounted to 6.6%. The overall average analysis result of respondents' answers to the Remuneration variable is 3.37. The results above show that Remuneration in the indicator "The amount of incentives/remuneration for College Educators "University of Padjadjaran" is in accordance with the Chancellor's Regulation No. 6 of 2020" which is 3.78 and the

lowest is the indicator "The environment (physical and non-physical) at College "University of Padjadjaran" has supported the performance of Educators" which is 2.99. To see the graph related to remuneration can be seen in **Figure 3**.
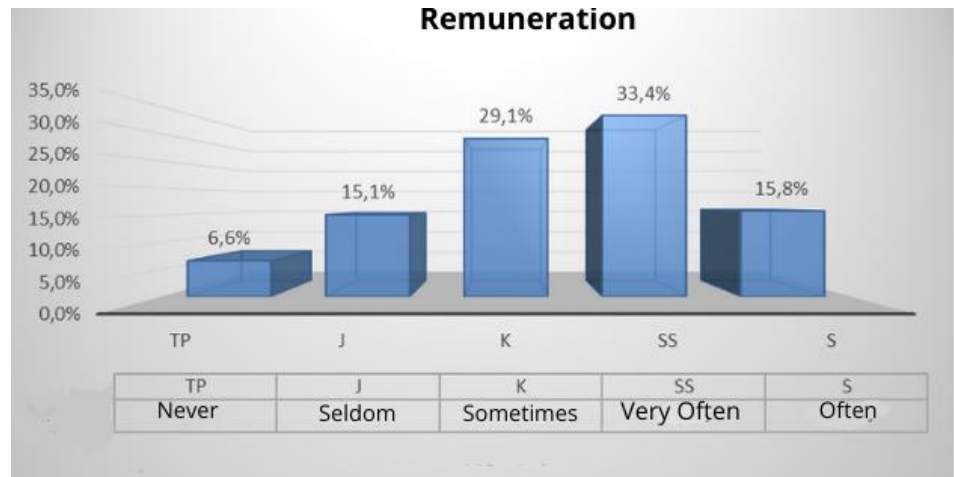

Figure 3. Results of analysis of remuneration variables analysis results for remuneration variables. Source: processed by authors, 2023.

The questions related to the remuneration variable, was answered by 33.4% of the 199 entire population. After analyzing the obtained results, it was found that the average in-200 centive/remuneration amount for these lecturers was 3.78. Furthermore, the lowest value 201 obtained was 2.99. This value was linked to the environmental indicated (physical and 202 nonphysical) University of Padjadjaran, indicating that remuneration variable exerted a significant 203 impact on lecturer performance.

Remuneration is critical to improving employee productivity and occupies an important place in an employee's life. His standard of living, status, motivation in society, loyalty and productivity depend on the remuneration he receives. For the government, the remuneration of Educators is important because of the contribution to service delivery. Aswathappa, (2013) argued that "remuneration occupies an important place in the life of an employee. His or her standar of living, status in the society; motivation, loyality, and productivity depen upon the remuneration he or she receives". He also argues that remuneration is compensation for employees in return for their contribution to the organisation and also non-financial remuneration that also contributes to improving employee performance.

From the above concept, it can be understood that if employees' performance is recognised and rewarded by the organisation, they will continue to strive for higher performance for themselves, as they expect higher levels of remuneration. Of course, if employees see a lower relationship between performance and reward, then they may set minimal goals to keep their jobs, but will not go the extra mile to excel in their existing positions.

3.2.2. Results of job satisfaction variable questionnaire data description

Based on the results of descriptive analysis of the answers of respondents to each indicator of the Job Satisfaction variable. Can be seen in **Table 3**.

Table 3. Results of descriptive analysis of job satisfaction variables.

NO	Items	Answer score										Total	Mean item
		(1) TP		(2) J		(3) K		(4) SS		(5) S			
		F	%	F	%	F	%	F	%	F	%		
P7	The work carried out by the Educator is in accordance with the expertise of the Educator	5	1.5%	19	5.7%	168	50.1%	70	20.9%	73	21.8%	335	3.56
P8	The work carried out by Educators is in accordance with the capacity of Educators	1	0.3%	17	5.1%	121	36.1%	133	39.7%	63	18.8%	335	3.72
P9	The payroll system implemented at College "X" fulfils the elements of fairness and proportion.	28	8.4%	17	5.1%	131	39.1%	128	38.2%	31	9.3%	335	3.35
P10	There is professional career development for Educators in "X" College	0	0%	33	9.9%	99	29.6%	156	46.6%	47	14%	335	3.65
P11	Leadership elements at "X" College have supervised the overall performance of Educators	4	1.2%	52	15.5%	77	23.0%	130	38.8%	72	21.5%	335	3.64
P12	Leadership elements at College "X" have shown concern for the performance of Educators and motivated Educators	17	5.1%	48	14.3%	122	36.4%	114	34%	34	10.1%	335	3.30
P13	Colleagues in College "X" provide support for improving the performance of Educators	6	1.8%	47	14%	103	30.7%	128	38.2%	51	15.2%	335	3.51
Average		-	2.6%	-	9.9%	-	35%	-	36.6%	-	15.8%	-	3.53

Source: processed by authors, 2023.

The table above shows that most of the respondents answered often (36.6%). The overall average analysis result of respondents' answers to the Job Satisfaction variable is 3.53. The results above show that Job Satisfaction in the indicator "The work carried out by Educators is in accordance with the capacity of Educators" is 3.72 and the lowest is in the indicator "The Leadership Element at College "University of Padjadjaran" has shown concern for the performance of Educators and motivates Educators" which is 3.30. These results can be seen in **Figure 4**.

Figure 4. Analysis Result for Job Satisfaction Variable. Source: processed by authors, 2023.

Regarding job satisfaction 36.6% of the respondents expressed being very satisfied with their role and working capacity as lecturers. The analysis of this variable was carried out using job-related indicators that were aligned with the abilities of the lecturers, and it yielded an average score of 3.72. the obtained lowest score in this indicator pertained to the absence of a leadership element at University of Padjadjaran, with a value 3.30. Conversely, only 2.6% of the respondents reported being very dissatisfied with their job.

3.2.3. Results of data description of employee performance variable questionnaire

Based on the results of descriptive analysis conducted from respondents' answers to each indicator of the Employee Performance variable. Can be seen in **Table 4**.

Table 4. Results of descriptive analysis of employee performance variables.

NO	Items	Answer score										Total	Mean item
		(1) TP		(2) J		(3) K		(4) SS		(5) S			
		F	%	F	%	F	%	F	%	F	%		
P14	Working time is in accordance with the Rector's regulation Number 6 of 2020	10	3.0%	22	6.6%	97	29.0%	156	46.6%	50	14.9%	335	3.64
P15	Implementation of BKD for Educators has been fulfilled every semester	7	2.1%	24	7.2%	75	22.4%	99	29.6%	130	38.8%	335	3.96
P16	Educators' performance reporting is in accordance with the agreed contract	0	0%	22	6.6%	95	28.4%	121	36.1%	97	29%	335	3.87
P17	There is a sanction for Educators who violate the code of ethics of Educators	0	0.0%	71	21.2%	82	24.5%	112	33.4%	70	20.9%	335	3.54
Average		-	1.3%	-	10.4%	-	26%	-	36.4%	-	25.9%	-	3.75

Source: Data processed by authors, 2023.

The table above shows that most of the respondents answered often (36.4%). The overall average analysis result of respondents' answers on the Employee Performance variable is 3.75. The results above show that Employee Performance on the indicator "Implementation of Lecturer Workload (*Beban Kerja Dosen*, BKD) for Educators has been fulfilled every semester" is 3.96 and the lowest on the indicator "There is a sanction for Educators who violate the Educators' code of ethics" which is 3.54. Lecturer Workload (*Beban Kerja Dosen*, BKD) is a responsibility of every lecturer that must be reported regularly every semester, because it affects his academic career. These results can be illustrated in **Figure 5** below:
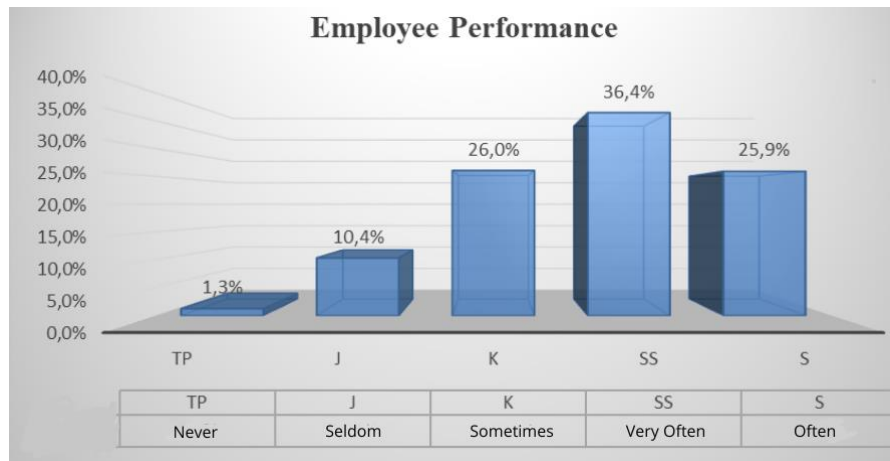
Figure 5. Analysis result for employee performance variable. Source: processed by authors, 2023.

The diagram above shows that the results of the distribution of answers to Employee Performance on frequent answers are 36.4% and the lowest results on never answers are 1.3%.

The remuneration system is very important in improving employee performance both in the government and private sectors. The remuneration system will have a positive impact on employee satisfaction which can support work motivation and will certainly affect the quality of their performance. In bureaucratic reform, the concept of remuneration system is an important indicator in improving the quality of employees in the form of a system of rearrangement of the wage and salary system that has an impact on performance (Sardjana et al., 2019). Partially, there is a positive influence and work discipline on employees with the provision of remuneration and compensation for employee performance (Arif et al., 2020). So it can be ascertained that the remuneration system in every organisation in the public or private sector can increase employee job satisfaction which will have an impact on the quality and productivity of employee performance.

3.3. Partial least square structural model testing results

This study aims to examine the effect of remuneration on the performance of Educators at University of Padjadjaran. In this study, there are two testing models carried out by SmartPLS, namely the measurement model or commonly referred to as the outer model and the structural model or commonly referred to as the inner model. First, starting with the measurement model (outer model), which is used to determine the validity and reliability that connects reflective indicators with latent variables tested using three measurement methods. After conducting confirmatory factor analysis and all indicators are declared valid and reliable. Then next is to test the overall structural model (inner model). The structural model (inner model) is carried out by evaluating the percentage of variance (R^2) for endogenous latent variables modelled as influenced by exogenous latent variables and also testing is carried out with the *t* value obtained from bootstraping to see whether the effect is significant or not (Indrawati, 2015).

Based on the Partial Least Square estimation method, the Full Structural Model path diagram is obtained as shown in **Figure 6**.
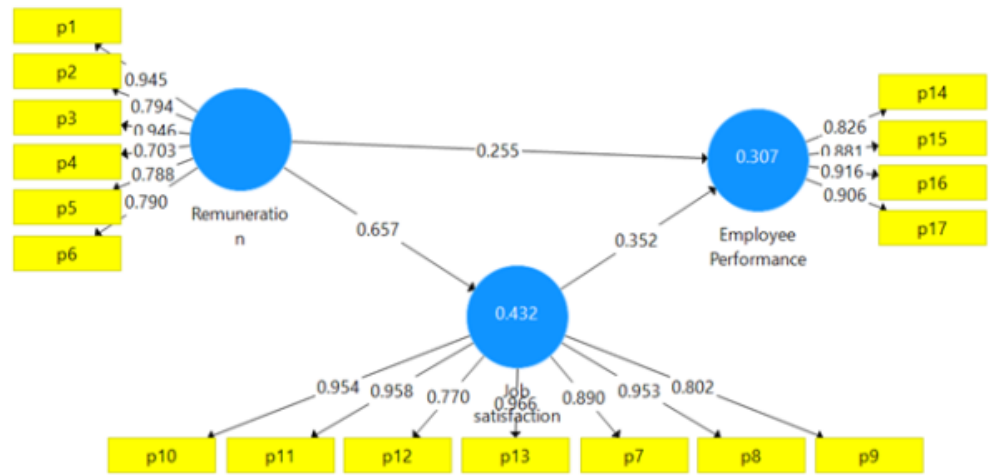

Figure 6. Full structural model (PLS Algorithm). Source: processed by authors, 2023.

In **Figure 6**, the yellow colour box serves as the respective indicator, while the blue colour circle represents the latent variable. Furthermore, it can be observed that numbers are attached to each arrow. The numbers represent the validity value obtained for each indicator and the reliability test conducted on the construct variable under study.

3.3.1. Model measurement test (Outer Model)

The measurement model (also known as the outer model), serves to connect latent and manifest variables. The evaluation of this model (outer model) was carried out through confirmatory factor analysis (CFA), where the validity and reliability tests were conducted on the latent construct. These measurement model tests consisted of convergent validity, discriminant validity, and reliability test.

Convergent validity is (concerned with the measurement principles of a the manifest) variables of a construct, where the expectation is for the correlation values to be high. Accordingly, the commonly practiced guideline for assessing convergent validity revolves around the loading value.

This value must be within a threshold, depending on the type of research it is being employed. For instance, in the case of confirmatory research characteristic, and explanatory research, the loading value must be greater that 0.7, and between 0.6–0.7 respectively, and it is expedient for the average variance extracted (AVE) value to be greater than 0.5.

Furthermore, factor loading values of 0.5 to 0.6 have been found to be appropriate for preliminary research and the development of measurement scales. Reliability tests evaluate accuracy, consistency, and instrumental precision to measure the composite reliability construct. The general guideline for assessing construct reliability is that a CR value higher than 0.7 is required for confirmatory research, while a value between 0.6 and 0.7 is acceptable for exploratory study.

Convergent validity

The convergent validity performed in this research aims to examine the accuracy of item level measurements on the research subject. According to Hair et al. in Indrawati (2015), the convergent validity of an item is valid only if its loading factor score is greater than 0.7. To see the loading factor value obtained, it can be seen in **Table 5**.

Table 5. Convergent validity test.

Latent Variable	Indicators	Loading Factor (> 0.7)	T Statistics	Ave (> 0.5)	Conclusion
Remuneration	p1	0.945	131,779	0.693	Valid
	p2	0.794	32,232		Valid
	p3	0.946	157,631		Valid
	p4	0.703	20,651		Valid
	p5	0.788	35,602		Valid
	p6	0.790	39,136		Valid
	p7	0.890	72,963		Valid
	p8	0.953	169,422		Valid
Job Satisfaction	p9	0.802	42,886	0.814	Valid
	p10	0.954	185,807		Valid
	p11	0.958	218,072		Valid
	p12	0.770	32,409		Valid
	p13	0.966	274,503		Valid
	p14	0.826	35,793		Valid
Employee Performance	p15	0.881	56,362	0.780	Valid
	p16	0.916	88,197		Valid
	p17	0.906	81,818		Valid

Source: Data processed by authors, 2023.

From the table, it can be seen that the loading factor for each indicator was more than 0.70. As a result, all the indicators in each latent variable were considered valid to be used as a measurement tool.

The remuneration construct (which is a latent variable), was measured using six indicators. Among the indicators, p3 yielded the highest loading factor value, while the lowest, was obtained from p4, indicating that p4 was the weakest indicator in reflecting remuneration. The average variance extracted (AVE) value was found to be 0.693, which is greater than 0.5. This value indicated that approximately 69.3% of the average information for each indicator was reflected through remuneration.

Following the remuneration construct (satisfaction construct, another latent variable), was measured using seven indicators. In this regard, talent indicator was found to yield the highest loading factor value compared to the other indicators, indicating that p13 indicator was the strongest that reflected job satisfaction construct. Meanwhile, p12 was considered the weakest indicator because it yielded the lowest loading factor. The average variance extracted (AVE) value was measured at 0.814, surpassing the threshold of 0.5. This indicated that approximately 81.4% of the average information for each indicator was reflected through remuneration.

Lastly, the performance construct (latent variable) was measured by employing four indicators. Among the indicators, p16 produced the highest loading factor than the other indicators. This finding shows that the p16 indicator was the strongest to reflect employee performance construct. On the other hand, p14 was considered the weakest indicator in terms of reflecting employee performance, and this was primarily because it yielded the lowest loading factor value. The average variance extracted (AVE) value obtained for this construct was 0.780, which is greater that the specified threshold of 0.5. This shows that approximately 78.0% of the average information in each indicator reflected employee performance.

Discriminant validity

Discriminant validity pertains to the principle where measurements (manifest variables) of different constructs should exhibit low correlations. The assessment of discriminant validity this study was carried out through cross loading test as shown in **Table 6**.

Table 6. Cross loading factor test result.

	Remuneration	Job Satisfaction	Employee Performance
P1	**0.945**	0.584	0.434
P2	**0.794**	0.541	0.379
P3	**0.946**	0.569	0.489
P4	**0.703**	0.288	0.304
P5	**0.788**	0.597	0.382
P6	**0.790**	0.614	0.409
P7	0.577	**0.890**	0.462
P8	0.579	**0.953**	0.55
P9	0.765	**0.802**	0.391
P10	0.583	**0.954**	0.542
P11	0.591	**0.958**	0.487
P12	0.355	**0.770**	0.264
P13	0.602	**0.966**	0.513
P14	0.36	0.323	**0.826**
P15	0.396	0.407	**0.881**
P16	0.471	0.534	**0.916**
P17	0.469	0.524	**0.906**

Source: data processed by authors, 2023.

From **Table 6**, it can be seen that all indicators exhibited high correlation with their respective measured latent variables. Specifically, indicators ranging from p1 to p16 demonstrated the strongest correlation with the remuneration variable. It is also expedient to acknowledge that p7 to p13 indicators showcased the highest correlation with the job satisfaction variable. In terms of the employee performance variable, p14 to p17 indicators exhibited the greatest correlation. Following this, it was found that each indicator displayed its highest correlation with the measured construct (variable) compared to the other constructs. Based on these insights, the model was concluded to exhibit a commendable discriminant validity.

Apart from the cross-loading test, the assessment of discriminant validity included the Fornell-Larcker criterion test. This involved comparing the square root of the average variance extracted (AVE) for each construct with the correlation value between all theconstructs within the model. The outcomes of the Fornell-Larcker criterion test are presented in **Table 7** below.

Table 7. Disriminat validity test (Fornell-Larcker Criterion).

	Job Satisfaction	Employee Performance	Remuneration
Job Satisfaction	**0.902**	-	-
Employee Performance	0.519	**0.883**	-
Remuneration	0.657	0.486	**0.832**

Source: data processed by authors, 2023.

According to the table above, all results of the root for each variable were higher than their correlation. For that reason, the model has good discriminant validity.

Reliability test

Questionnaire items were required to meet the reliability criteria. As stated by Indrawati et. al. (2017), reliability pertains to internal consistency reliability (Indrawati, 2015). In this regard, the commonly employed criterion to evaluate internal consistency includes 35 measures such as Cronbach's Alpha, with alternatives like Composite Reliability and Rho_A. Furthermore, the recommended acceptable value for Cronbach's Alpha, with alternative Composite Reliability, and Rho_A is ≥ 0.7. The reliability test outcomes for each construct are presented in **Table 8** below.

Table 8. Reliability test.

	Cronbach'S Alpha	Rho_A	Composite Reliability
Remuneration	0.909	0.923	0.930
Job Satisfaction	0.961	0.971	0.968
Employee Performance	0.907	0.929	0.934

Source: data processed by authors, 2023.

As indicated in **Table 8**, the Composite Reliability results for each latent variable value exceeded 0.7. Additionally, both Cronbach's Alpha and Rho_A values were higher than 0.7. Based on these insights, it was inferred that the questionnaire items met the reliability criteria, meaning each indicator consistently measures its respective variable.

3.3.2. Structural model (Inner Model)

According to Indrawati (2015), the second test in PLS is referred to as Structural Model Assessment or Inner Model Measurement. This process involves conducting tests based on path values in order to determine the significance of influence. In this research, bootstrapping with a subsample of 335 and a significance level of 0.05 (one tailed) were employed. The outcomes of the full structural model test using the bootstrapping method are illustrated in **Figure 7** below:
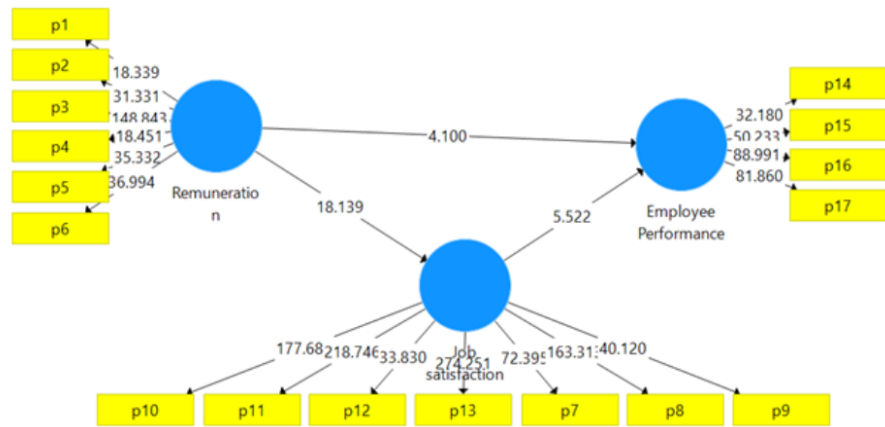
Figure 7. Diagram for Full Structural Model Line (Bootstraping). Source: data processed by authors, 2023.

Some of the structural model test conducted in the research include:

Table 9. Path coefficient and T-Statistics.

	Path	*t*-value	*p* value	**Alternative hypothesis**
Remuneration → Job satisfaction	0.657	19.330	0.000	Accepted
Job satisfaction → Employee performance	0.352	5.676	0.010	Accepted
Remuneration → Employee performance	0.255	4.057	0.000	Accepted
Remuneration → Job satisfaction → Employee performance	0.231	5.429	0.000	Accepted

Source: processed by authors, 2023.

Based on the path coefficients and t-statistics from **Table 9**, the analysis revealed the following findings:

Influence of Remuneration to Job Satisfaction:

H0: Remuneration did not positively and significant influenced Job Satisfaction;

H1: Remuneration is positively significant to Job Satisfaction;

H0 was rejected while H1 is accepted if $t_{count} > t_{table}$.

To investigate the a forementioned hypotheses, a t-value was employed to assess the impact of Remuneration on Job Satisfaction. The obtained *t*-value, which was 19.330, exceeded 1.95 at a significance level of $a = 0.05$. Thus, the conclusion drawn is that H1 was accepted, indicating a significant influence of Remuneration on Job Satisfaction. The original sample displayed a positive correlation of 0.657 between the Remuneration variable and Job Satisfaction. This suggests that an improvement in remuneration, leads to a corresponding increase in job satisfaction by 0.657.

Influence of Job Satisfaction to Employee Performance

H0: Job Satisfaction is not positively significant to Employee Performance;

H1: Job Satisfaction is positively significant to Employee Performance;

H0 was rejected, while H1 was accepted if $t_{count} > t_{table}$.

In order to examine the above hypotheses, *t*-value was applied to explore the influence of Job Satisfaction on Employee Performance with the *t*-value is 5.676, which was 4 more than the specified threshold of 1.95 with $a = 0.05$. Based on the

obtained results it was concluded that H2 is accepted implying that Job Satisfaction significantly influenced Em ployee Performance.

The original sample indicated a positive correlation of 0.352 between the Job Satisfaction variable and the Employee Performance variable. This implied that an enhancement in Job Satisfaction corresponded to a rise in Employee Performance by 0.352.

Influence of Remuneration to Employee Performance:

H0: Remuneration is not positively significant to Employee Performance;

H1: Remuneration is positively significant to Employee Performance;

H0 was rejected, while H1 was accepted if $t_{count} > t_{table}$.

In order to examine this hypothesis, a *t*-value of 4.057 was applied to explore the influence of Remuneration on Employee Performance. The result of the analysis indicated that H3 was accepted, meaning Remuneration exerted a significant influence on employee Performance.

The original sample revealed a positive correlation of 0.255 between the Remuneration variable and the Employee Performance variable. This suggested that an improvement in Remuneration was associated with an increase in Employee Performance by 0.255.

Influence of Remuneration to Employee Performance that Mediated by Job Satisfaction

H0: Remuneration does not exhibit a statistically positive influence on Job Satisfaction when mediated by Job Satisfaction;

H1: Remuneration is exhibit a statistically significant positively influence on Job Satisfaction when mediated by Job Satisfaction;

H0 is rejected and H1 is accepted if $t_{count} > t_{table}$.

In order to validate the a forementioned hypotheses, a *t*-value was utilized to assess the impact of Remuneration on Employee Performance when mediated by Job Satisfaction. The *t*-value, which was 5.429 exceeded the threshold of 1.95 a significance level of $a = 0.05$. The insights, drawn from this examination led to the conclusion that H4 was accepted, indicating a significant influence of Remuneration on Employee Performance when mediated by Job Satisfaction.

The original sample reflected a positive correlation of 0.231 between the Remuneration variable and the Employee Performance variable, with Job Satisfaction serving as a mediator. This suggested that an enhancement in Remuneration leads to an increase in 44 Employee Performance by 0.231 through the mediating role of Job Satisfaction.

In accordance with the SEM test results, the matrix result of this research is presented in **Table 10** below:

Table 10. Matrix results.

	Hypothesis	Results	SEM analysis results
H1	Job Satisfaction has a positive and significant influence on Employee Performance.	Proven and Significant	Calculated *t* value = 5.676 *p* value = 0.010 Accepted

Table 10. (*Continued*).

	Hypothesis	Results	SEM analysis results
H2	Remuneration has a positive and significant influence on job satisfaction.	Proven and significant	Calculated *t* value = 19.330
			p value = 0.000
			Accepted
H3	Remuneration has a positive and significant influence on Employee Performance.	Proven and Significant	Calculated *t* value = 4.057
			p value = 0.000
			Accepted
H4	Remuneration has a positive and significant influence on job satisfaction through employee performance.	Proven and Significant	Calculated *t* value = 5.429
			p value = 0.000
			Accepted

Source: Processed by authors, 2023

4. Discussion

4.1. Remuneration

According to Flippo (1961), remuneration is defined as the adequate and equitable compensation of personnel for their contributions to organizational objectives. This compensation can be used for two basic purposes: (1) to attract and retain qualified personnel in the organization, and (2) to motivate these personnel to attain higher levels of performance. In this regard, Goel stated that "Remuneration is the compensation given to employees in lieu of their services, and it exerts a significant influence on employee performance". According to Goel, remuneration refers to the compensation given to employees in lieu of services related to employee performance. Similarly, posited that the concept of remuneration involves compensating employees in return for their contribution to the organization involves compensating employees in return for their contribution to the organization (Aswathappa, 2013). Compensation holds an important place in the life of employees, and this is primarily because it significantly influences their standard of living, status, motivation in society, loyalty and productivity. Based on this insight, Ashwathappa defined remuneration as "the compensation an employee receives in return for his or her contribution to the organization", and further explained that "to be specific, typical remuneration of an employee comprises wages and salary, incentives, fringe benefits, perquisites and nonmonetary benefits".

In another study conducted by Suwanto and Priansa, the importance of remuneration to employees was explored (Suwanto and Priansa, 2011). The results of the study indicated that every employee anticipated that their compensation payment would remain continually increase gradually, and not decrease. Following this, Rod & Soběhart compared the remuneration systems within the education sectors of the Czech Republic, Belgium and Germany (Rod and Soběhart, 2018). The research showed that the remuneration in Belgium dan Germany were remarkably similar while in the Czech Republic, there was a significant decline across all educational levels. Based on these insights, it is expedient to acknowledge that high employee performance is significantly influenced by organizational.

4.2. Performance

The characterisation of employee performance extends to a goal-centred process, where emphasis is placed on progression towards the goal, as opposed to a singular fixation on the end result (Armstrong and Taylor, 2020; Neely et al., 2005; Pawar, 2019). However, in this research, it is believed that employee performance is a measure of the combination of work results, as well as the processes and the behaviors exhibited by the employees when working. This sentiment aligns with the viewpoint held by numerous experts, including Corvellec (1996), who articulated performance as concomitant occurrence encompassing actions, the resultant outcomes thereof, and the subsequent juxtaposition of the said outcomes against predetermined magnitudes or benchmarks (Corvellec, 1996). Additionally, Mathis and Jackson (2011) stated that performance, in this context is basically measured by the entire activities undertaken by each employee (Mathis and Jackson, 2010). Robbins and Judge (2015) also argued that this metric is a function of motivation, ability and opportunity.

4.3. Relationship between remuneration and employee performance

The results presented in study conducted by Alwaki (2018), which involved the participation of 200 respondents from the Amman Stock Exchange-in Saudi Arabia showed remuneration exerted a significant influence on employee performance (Alwaki, 2018).

Similarly, Jean et al. (2017) carried out a survey among 153 employees of Mombasa Semen Sungai Thi-South Afrika and found that remuneration and incentives, in form of bonuses certifications, and promotions, play a crucial role in attracting and retaining employees within the organization. Another survey was performed by Azabo et al., (2020), which involved the participation of 385 respondents from seven private universities in South Africa. The results also indicated remuneration as a positive determinant and significant influencer of employee performance.

This finding was also similar to that of the study conducted by Mitalo (2019) among 370 academic staff in the State University of Kenya-Nairobi as well as by Calvin (2017) who involved 83 employees from Abdul Gusau Polytechnic, Talta-Mafara and State College of Education Maru, and Zamfara State of Nigeria. Remuneration is important in fostering the performance (Anthony, 2017; Martono et al., 2018; Othman et al., 2019). Finally, several factors influence job satisfaction, including self-esteem, identification, fulfilment of demands, happiness, and intimacy. In addition to these factors, job satisfaction indicators consist of aspects such as the nature of the job, pay, promotion, opportunities, supervision, and relationships with co-workers.

5. Conclusion

In conclusion, based on the data processing results using Smart PLS 3.0, it was evident that there was a positive a statistically significant relationship between Remuneration and Job Satisfaction among lecturers at Universitas "X". This result was substantiated by the obtained significance value of 0.000, which is less than 0.05, and a t-value of 19.330, surpassing the threshold of 1.95. Consequently, the H1 hypothesis of this research was considered acceptable. It was also found that a positive

and significant correlation existed between job satisfaction and employee performance among the lecturers at the study location. The obtained significance value for this examination was 0.010, which is below 0.05, while the t-value was 5.676, exceeding 1.95. This indicated that the H2 hypothesis proposed in this research was accepted.

Additionally, a positive and significant relationship was observed between Remuneration and Employee Performance, with a significant value of 0.000, which is lower than 0.05, and a t-value of 4.057, surpassing the threshold of 1.95. Based on this insight the H3 hypothesis of this research was accepted. Lastly, positive and significant relationship was identified between Remuneration and Employee Performance when mediated by Job Satisfaction among lecturers at Universitas "X". The significant value for this assessment was 0.000, below 0.05, and the t-value was 5.429, exceeding 1.95. As a result, the H4 hypothesis of this research was accepted.

The remuneration policy in the university serves as a manifestation of the management's responsibility towards the institution and its employees. It is anticipated that proper remuneration enhances employee performance. In this regard, the formulation and regulation of the remuneration policy aligned with the organizational vision and mission. According to Regulation of the Ministry of Education No. 77/2014, remuneration encompasses the total compensation received by university lecturers and staff.

Giving remuneration to employees is a form of appreciation to employees that can increase employee motivation and performance. So if an organisation wants to progress, it must pay attention to the conditions and needs of its employees. If this is not carried out, then employees experience a decrease in the quality of work. So it is an obligation for every organisation to see and provide what is the need of each employee. Of course, if it runs, it will have a positive impact on employee satisfaction and improve employee performance. The output is that the organisation will be more able to compete because it has quality human resources who have high motivation and performance that can increase the productivity of its performance.

References

Alwaki, M. N. (2018). An Evaluation of the Impact of Remuneration on Employee Attitude and Performance in Organizations. International Journal of Academic Research in Business and Social Sciences, 8(7). https://doi.org/10.6007/IJARBSS/v8-i7/4383

Ammad, S., Alaloul, W. S., Saad, S., & Qureshi, A. H. (2021). Personal Protective Equipment (PPE) usage in Construction Projects: A Systematic Review and Smart PLS Approach. Ain Shams Engineering Journal, 12(4), 3495–3507. https://doi.org/10.1016/j.asej.2021.04.001

Anthony, A. E. (2017). Effects Of Discipline Management On Employee Performance In An Organization: The Case Of County Education Office Human Resource Department, Turkana County. International Academic Journal of Human Resource and Business Administration, 2(3), 1–18.

Arif, M., Syaifani, P. E., Siswadi, Y., & Jufrizen, J. (2020). Effect of Compensation and Discipline on Employee Performance. Proceeding UII-ICABE, 1(1 SE-Articles), 263–276.

Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management practice. Kogan Page Publishers.

Armstrong, M., & Yusron, L. (2021). Manajemen Kinerja: Handbook manajemen SDM. Nusamedia.

Aswathappa, K. (2013). Human resource management: Text and cases. McGraw-Hill.

Azabo, E. I., Gaite, S. S., Anumaka, B. I., & Wunti, Y. I. (2020). Remuneration and Discipline of Employees in Private Universities in Uganda. Advances in Social Sciences Research Journal, 7(1), 438–451. https://doi.org/10.14738/assrj.71.7350

Barczak, A., Marska-Dzioba, N., Rostkowski, T., & Rozmus, D. (2021). Multiple Correspondence Analysis in the Study of Remuneration Fairness: Conclusions for Energy Companies—Case Study of Poland. Energies, 14(23), 7942. https://doi.org/10.3390/en14237942

Bernardin, H. J., & Russel, J. E. A. (1998). Human Resources management, 2 ed. Mc Graw-Hill.

Calvin, O. Y. (2017). The Impact of Remuneration on Employees' Performance: A Study of Abdul Gusau Polytechnic, Talata-Mafara and State College of Education Maru, Zamfara State. Nigerian Chapter of Arabian Journal of Business and Management Review, 4(2), 34–43. https://doi.org/10.12816/0037554

Corvellec, H. (1996). Stories of Achievements-Narrative Features of Organizational Performance.

Creswell, J. W. (2014). Research Design Qualitative, Quantitatives and Mix Method Approaches. Sage Publications.

Davidescu, A. A., Apostu, S.-A., Paul, A., & Casuneanu, I. (2020). Work Flexibility, Job Satisfaction, and Job Performance among Romanian Employees—Implications for Sustainable Human Resource Management. Sustainability, 12(15), 6086. https://doi.org/10.3390/su12156086

Derchi, G.-B., Zoni, L., & Dossi, A. (2021). Corporate Social Responsibility Performance, Incentives, and Learning Effects. Journal of Business Ethics, 173(3), 617–641. https://doi.org/10.1007/s10551-020-04556-8

Dorta-Afonso, D., González-de-la-Rosa, M., García-Rodríguez, F., & Romero-Domínguez, L. (2021). Effects of High-Performance Work Systems (HPWS) on Hospitality Employees' Outcomes through Their Organizational Commitment, Motivation, and Job Satisfaction. Sustainability, 13(6), 3226. https://doi.org/10.3390/su13063226

Emeka, N., Amaka, O., Ejim, E. P. (2015). The Effect of Employee Motivation on Organizational Performance of Selected Manufacturing Firms in Enugu State. World Journal of Management and Behavioral Studies, 3(1), 1–8.

Flippo, B. (1961). Principles of Personal Manajement. Mc. Graw. Hill Book Company. Inc. New York-Toronto-London.

Forson, J. A., Ofosu-Dwamena, E., Opoku, R. A., & Adjavon, S. E. (2021). Employee motivation and job performance: a study of basic school teachers in Ghana. Future Business Journal, 7(1), 30. https://doi.org/10.1186/s43093-021-00077-6

Giao, H. N. K., Vuong, B. N., & Tushar, H. (2020). The impact of social support on job-related behaviors through the mediating role of job stress and the moderating role of locus of control: Empirical evidence from the Vietnamese banking industry. Cogent Business & Management, 7(1), 1841359. https://doi.org/10.1080/23311975.2020.1841359

Indrawati. (2015). Management and Business Research Methods Convergence of Communication and Information Technology (Indonesian). Bandung: PT Refika Aditama.

Isharyanto Ciptowiyono. (2013). Praktik Welfare State di Korea dan Jepang. Available online: https://www.kompasiana.com/isharyanto/552c1ece6ea83469608b45b9/praktik-welfare-state-di-korea-dan-jepang (accessed on 9 September 2023).

Islam, H., & Purnamasari, F. (2019). Remuneration Of Employee Performance (Work Satisfaction and Motivation as a Variable of Mediation). In: Proceedings of the The First International Conference on Islamic Development Studies 2019, ICIDS 2019; 10 September 2019. Bandar Lampung, Indonesia.

Jean, K. N., Ngui, T. K., & Robert, A. (2017). Effect of compensation strategies on employee performance: A Case Study of Mombasa Cement Limited. International Journal of Innovative Social Sciences & Humanities Research, 5(3), 25–42.

Lawler, E. E. (1991). Paying the person: A better approach to management? Human Resource Management Review, 1(2), 145–154. https://doi.org/10.1016/S1053-4822(05)80006-3

Leitão, J., Pereira, D., & Gonçalves, Â. (2019). Quality of Work Life and Organizational Performance: Workers' Feelings of Contributing, or Not, to the Organization's Productivity. International Journal of Environmental Research and Public Health, 16(20), 3803. https://doi.org/10.3390/ijerph16203803

Martono, S., Khoiruddin, M., & Wulansari, N. A. (2018). Remuneration reward management system as a driven factor of employee performance. International Journal of Business & Society, 19.

Mathis, R. L., & Jackson, J. H. (2010). Human resource management. Cengage Learning.

Mitalo, R. (2019). Employee Compensation, Motivation, Perceived Equity, Supervisor Support and Performance of Academic Staff in Kenyan Chartered Public Universities. Ijcab.Org, 1(Iii), 194–203.

Neely, A., Gregory, M., & Platts, K. (2005). Performance measurement system design: A literature review and research agenda. International Journal of Operations & Production Management, 25(12), 1228–1263.

Ngich, L. M. (2021). The Quality of Service of Vehicle Plate Online Registration in Cambodia: Assessment and Perspective of Online Customers. Journal of Contemporary Governance and Public Policy, 2(2), 106–121. https://doi.org/10.46507/jcgpp.v2i2.37

Othman, A. K., Mustafa, H. N., Hamzah, M. I., & Abdullah, M. Z. (2019). The Influence of Flexible Work Arrangement and Remuneration on Employees' Job Satisfaction in Private Higher Education Institutions. Advances In Business Research International Journal, 5(1), 71. https://doi.org/10.24191/abrij.v5i1.9984

Pawar, B. S. (2019). Employee performance and well-being: Leadership, justice, support, and workplace spirituality. Taylor & Francis.

Robbins, S. P. (1982). Personnel, the management of human resources. In (No Title). Englewood Cliffs, N.J.

Robbins, S. P., & Judge, T. A. (2015). Organizational Behavior Edisi 12. United State America: Pearson.

Rod, Ales., & Soběhart, R. (2018). A Comparison of the Systems of Remuneration in the Educational Sectors of the Czech Republic, Belgium and Germany. Littera Scripta, 11(1), 170–183. https://yadda.icm.edu.pl/yadda/element/bwmeta1.element.desklight-65674a51-4dcd-4488-9f26-3989260c19ac

Sardjana, E., Sudarmo, S., & Suharto, D. G. (2019). The effect of remuneration, work discipline, motivation on performance. International Journal of Multicultural and Multireligious Understanding, 5(6), 136–150.

Sarstedt, M., & Cheah, J.-H. (2019). Partial least squares structural equation modeling using SmartPLS: a software review. Journal of Marketing Analytics, 7(3), 196–202. https://doi.org/10.1057/s41270-019-00058-3

Simmonds, J. S., Sonter, L. J., Watson, J. E. M., et al. (2020). Moving from biodiversity offsets to a target-based approach for ecological compensation. Conservation Letters, 13(2). https://doi.org/10.1111/conl.12695

Suwanto & Priansa, D. J. (2011). Manajemen SDM dalam organisasi Publik dan Bisnis. Alfabeta.

Sylqa, D., & Neziraj, E. (2022). Effects of Performance Appraisal on Remuneration Practices and its Impact on Motivation of Employees in Public and Private Sector Companies in Kosovo. Journal of Education Culture and Society, 13(2), 341–358. https://doi.org/10.15503/jecs2022.2.341.358

Teddlie, C., & Yu, F. (2007). WITHDRAWN—Mixed Methods Sampling. Journal of Mixed Methods Research, 1(1), NP1–NP1. https://doi.org/10.1177/2345678906292430

Thakkar, J. J. (2020). Applications of Structural Equation Modelling with AMOS 21, IBM SPSS. In Structural Equation Modelling (pp. 35–89). Springer. https://doi.org/10.1007/978-981-15-3793-6_4

Tiwari, M., & Srivastava, S. (2023). Generous Remuneration Fostering Organisation Towards Sustainability. In Multidisciplinary Approaches to Sustainable Human Development (pp. 75–96). IGI Global. https://doi.org/10.4018/978-1-6684-8223-0.ch004

Wahyuhadi, J., Hidayah, N., & Aini, Q. (2023). Remuneration, Job Satisfaction, and Performance of Health Workers During the COVID-19 Pandemic Period at the Dr. Soetomo Hospital Surabaya, Indonesia. Psychology Research and Behavior Management, Volume 16, 701–711. https://doi.org/10.2147/PRBM.S396717