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Association Between Employee Motivation and Performance: A Study of Pakistan's Public Sector

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Abstract

The study explores the complex relationship between employee motivation and performance within the context of the Pakistan's public sector. The primary aim is to provide insights that can assist policymakers in designing an effective reward system, including an incentives mechanism, thereby positively motivating public sector employees for better outcomes. A quantitative research design was used, with a sample of 412 employees from various departments of the Punjab government, representing diverse functions. Stratified random sampling was employed and a structured questionnaire was distributed to collect responses on Likert Scale. After continuous follow-up, 265 employees provided their responses. The estimations were done by using SmartPLS. The results reveal the critical role of human resource management practices in shaping employee performance. The findings indicate a significant association between employee motivation and performance. By elucidating tangled interplay between employee motivation and key human resource practices, this study contributes valuable insights in the domain of public policy. The practical implications of these findings will be particularly beneficial for public sector policymakers, providing a foundation for the development of more nuanced and efficient public sector compensation and incentives programs to enhance government sector performance of employees.

Keywords: human resource management, motivation of employee, Pakistan, performance of employee, public sector

Introduction

In recent decades, public sector employee management has faced significant challenges, especially in developing nations like Pakistan (Ali, & Elias, [2023](#); Chen et al., [2023](#); Shi, [2023](#)). Human resources experts, following the

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experiences of developed countries, are redesigning their human resource practices (Alkhalailah, & Mjlae, [2023](#); Schnell, & Gerard, [2022](#)). Employee motivation, a catalyst for heightened productivity and performance, stands as a critical factor influencing engagement, productivity, and overall department outcome (Nguyen et al., [2023](#); Serhan et al., [2018](#)). Recognizing its pivotal role, organizations deploy incentive programs to inspire optimal performance and attract top-tier talent (Akinyele et al., [2023](#); Smiley, [2023](#)).

Pakistan, the fifth most populous country in the world, has a population of 241.49 million with an annual growth rate of 2.55%. There are 436,243 civil servants in the country. The Pakistan State Bank annual report 2022-2023 reveals that wage increases were 19.1% in 2023 and 14.0% in 2022.

Pakistan has undertaken many civil servant reforms to transform, restructure and acknowledge the role of government employees; however, these efforts could not bring the required output. The third era attempt (2001-21) aimed to boost the motivational level of government employees through training and development, while also reducing the divide between generalist and technocrats. The National Commission for Government Reforms (NCGR) proposed an ambitious plan to align public sector employment with private sector practices. Limited progress was made in enhancing performance of government employees due to political culture and patronage. According to 36 administrative reform reports and the NCGR, employee motivation very important, yet in public sector, where pay packages are comparatively lower, motivation remains sluggish. Therefore, it is essential to align public sector compensation with market standards.

Employee motivation has always been the core of organizational strategy because productivity is directly tied to employee morale (Alanizan, [2023](#); Leman, & Gustomo, [2023](#); Sherli & Mayakannan, [2023](#); Weiwei, [2023](#)). Numerous theories on employee motivation suggest that motivated employees exhibit behaviors that lead to high productivity. These theories include goal-setting theory, Maslow's hierarchy, expectancy theory, Herzberg's two factor theory, equity theory, Theory X and Theory Y, ERG theory and acquired needs theory etc.

Previous literature highlights that employee motivation in Pakistan's public sector can significantly boost performance and productivity (Anwar, & Humayun, [2023](#); Bashir et al., [2023](#); Hassan et al., [2023](#); Kalwar et al.,

[2023](#)). The studies conducted by Pakistani authors have identified key factors that hinder the public sector employees' performance, particularly the root cause of low motivation. Research by Mehmood and Lee ([2023](#)) found that political patronage, absence of internal accountability mechanism and demotivation are major contributors to the poor performance of Provincial Management Services (PMS) Central Superior Services (CSS). Similarly, a study on public sector library professionals revealed that various types of motivation effect the service attitude of employees (Shahzad et al., [2023](#)). The study on banking sector showed that effective commitment is affected by motivation and job satisfaction, also the intrinsic and extrinsic rewards have a positive relationship with productivity (Haq et al., [2023](#); Nizam, & Hameed, [2023](#)). The predictors of job satisfaction and motivation produces strong effect on productivity of public sector's female university teachers of Pakistan (Kazmi et al., [2023](#)).

The above literature is an evidence that highlights a significant gap in addressing variables of study and to launch an inquiry that suggests a reason and logical solution of the problem. Because the public sector organizations are being driven on public money and the expectations of masse are very high from the personnel serving in the public sector. The rationale is also convincing that annual cost of wages to the public sector employees is more than 3 trillion PKR, while 1.5 trillion is being paid as pensions. Despite such heavy spending, public sentiment remains negative, and public trust is waning.

The study is a valuable addition because it suggests solutions to enhance performance of public sector employees given the huge investment and minimum return on investment (ROI) which will ultimately improve the image of state-owned institutions. With the convalescence of government departments, the public trust will enhance and the persona of lethargy of government departments will be dispelled. The study recommends a feasible course of actions and strategies to the policymakers that not only bridge the gap between masses and government but also attract more citizens towards public institutions. The study would be a good addition to the body of knowledge which may be beneficial for other developing and underdeveloped countries.

Literature Review

Employee motivation plays a crucial role in achieving optimal performance, especially in the public sector, where it serves as a catalyst for reaching desired outcomes (Haider et al., [2019](#); Todaro, [2024](#); West-Barnett, [2017](#)). The comprehension of these two factors can help governments to develop and implement strategies that enhance productivity and achieve state goals and political agendas (Bisogno et al, [2024](#); Indrawati, & Muljaningsih, [2022](#)). This literature review examines various theories of motivation to make the topic more understandable for the readers and reviews the empirical studies that explore the relationship between the two variables.

Maslow's hierarchy of needs theory posits that individuals are motivated by series of needs, that includes self-actualization, social, esteem, safety and physiological. Motivation begins with fulfilling basic needs and gradually moves toward higher-level needs, which in turn drives performance (Bordel, & Alcarria, [2024](#)).

The theory identifies two key elements which play role in motivating employees. These elements include motivation (e.g., recognition, achievement) and hygiene (e.g., salary, work conditions). These factors contribute to employee satisfaction and employee performance (Ansari, [2019](#)).

The theory suggests that employees are motivated when they believe their efforts will lead to desired performance and rewards. So, the theory clearly focuses on rewards and its link with performance (Nyoni, [2024](#)).

This theory also focuses on intrinsic and extrinsic rewards and motivation. Employees are intrinsically motivated when they expect that they are satisfied from inside (e.g., growth, respect, reward here or hereafter) while extrinsically motivated when they are given true remuneration, facilities, working environment (Kandiyali, & Gomberg, [2024](#)).

The study by Deci et al. ([2017](#)) highlighted that intrinsic motivation plays a crucial role for public sector employees' performance. Employees in the public sector were found to be more productive when their score of motivation was higher (Khair & Baniamin, [2024](#)).



Research also indicates that motivation is low when the reward system does not satisfy employees in the public sector, which in turn affects the performance of public institutions (Alkandi et al., [2023](#); Vitalis, [2024](#)).

Previous studies have also emphasized the role of engagement of employee in the motivation-performance relationship (Amin et al., [2024](#); Breaugh, [2021](#); Zahari, & Kaliannan, [2023](#)). Engaged employees tend to show higher level of motivation and better performance in the public sector (Ding & Wang, [2023](#); Khusanova et al., [2021](#)).

Furthermore, studies have shown that specific and challenging tasks increase motivation and ultimately affect performance (Butera et al., [2024](#)). Clear and justified targets also serve as guiding tags and also provide a sense of accomplishment when employees achieve their goals (Farley et al., [2021](#)).

Employees in the public sector tend to show better performance when they are more engaged, committed and properly rewarded (Khan & Burdey, [2021](#)). Motivated employees are more productive and often go beyond the traditional mechanism to extend their roles (Bashir et al., [2023](#)). When employees are satisfied, their commitment with the public sector strengthens, leading to reduce turn over and improved performance (Saha & Kumar, [2018](#)). Moreover, motivated public sector employees exhibit positive and supportive attitudes, such as teamwork, collaboration and readiness to serve the public (Zahari, [2023](#)). A strong correlation has been found between performance and motivation in public sector in the study by Malik and Danish ([2010](#)). The public sector leaders who give priority to employee motivation and lead by example tend to see higher performance in their departments, with employees respecting and remembering such leaders (Ali et al., [2017](#)). There is strong impact of recognition, rewards, training, and a positive work environment are likely to see improvements in employee performance and ultimately achieve their organizational goals more effectively (Raziq & Maulabakhsh, [2015](#)). The motivated employees tend to be more engaged, high performer and loyal to the organization results in quality work and extended output (Liu, & Liu, [2022](#)). The public sector employees are more proactive, take the ownership of their tasks and strive for excellence in their tasks only when they are motivated (Vivona et al., [2020](#)). Motivated employees are more inclined to collaborate with colleagues, contribute innovative ideas, and adapt positively to changes within the organization (Hernandez-Espallardo et al., [2018](#)). Organizations

of public sector give it priority to motivate their employees through recognition, training, promotions, extra rewards etc. Public sector organizations foster the culture of motivation to enhance service delivery, promote efficiency for better outcome of their department (Edet et al., [2023](#)).

The summary of the previous studies highlights a direct relationship between performance of employee and motivation of employee in the public sector of Pakistan (Zahra, & Jadoon, [2016](#)). From this discussion, it is clear that motivation not only leads to enhanced performance but also fosters the development of better skillset with positive attitude among public sector employees. The correlation test in the study also confirms that motivated employees are more productive as it has been mentioned in expectancy theory, Self-Determination Theory, two factor theory etc.

Objectives of the Study

- 1) To examine the association between employee motivation and employee performance in Pakistan's public sector.
- 2) To explore the moderating effect of education level, gender and cadre on the relationship between employee motivation and performance in Pakistan's public sector.

Hypotheses

H₁: There is a significant association between employee motivation and employee performance in Pakistan's public sector.

H₂: Education level, gender and cadre have a moderating effect on the association between employee motivation and employee performance in the Pakistan's public sector.

Methodology

Research Design

The quantitative study approach has been adopted for the investigation of the effect of employee motivation on employee performance in the Pakistani public sector. The objective was to measure and test the relationships between these variables to determine the impact of motivation on performance.

Population and Sampling

This study involved participants from the Punjab government, with employees from various departments included due to their diverse roles in the public sector. The study adopted a stratified random sampling technique so as to ensure that all the employee strata were well represented in the study. The initial sample size as estimated from the population was 412 employees. However, after subsequent follow-ups, 265 employees completed the survey, yielding an overall response rate of 64.32%.

Data Collection

Data were collected using a structured questionnaire designed to capture information on both employee motivation and performance. The items in the questionnaire were measured using a Likert scale 5-point, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was emailed to all the selected employees thereby covering a wide cross section of departments.

The questionnaire was divided in to two parts: 1) *Employee Motivation*: This section consisted of items concerning the basic and organizational motive, proposed reward, expectation, satisfaction, and promotion. 2) *Employee Performance*: This section assessed employees' performance based on how they met the requirements of their roles, applied their skills, responded to constructive criticism, and participated in decision-making processes.

Data Analysis

Further, Structural Equation Modeling (SEM) was developed and used with Smart PLS software to measure the level and direction of the six hypothesized relationship. It enabled us assess the impact of other motivational factors on employee performance, in detail as the employees were always presenting their performance levels. For testing of the internal consistency of the variables that are used in the questionnaire, the Cronbach's alpha is used whose value 0.70 or higher is considered as acceptable for this study. Moreover, the factor analysis is used to check the construct validity.

Ethical Considerations

The study adhered to ethical guidelines, ensuring that participation was voluntary, respondents' identities were protected and the report was

anonymized. Each participant provided written consent after they had been given a brief of the study and the questionnaire that they had to fill out. The collected data was not used for any other purposes other than research purposes and the data collected was also well secure to avoid any one’s intervention.

Results

The Smart-PLS 4. 0 statistical tool was utilized in this study to evaluate the validity of the measurement model and test the hypotheses. To ensure that the validity and reliability of the chosen measures meet the required standards, the data was analyzed using a rigorous statistical approach. For every construct Cronbachs Alpha Composite Reliability (CR) convergent (Outer Loading and AVE) and discriminant validity (HTMT ratio) were computed. The PLS Algorithm was calculated to obtain these psychometric properties. Each constructs composite reliability is measured which aids in confirming the survey instruments internal consistency and dependability. Table 1 presents the findings.

Table 1
Reliability and Validity of the Measurement Instruments

Item	<i>k</i>	Loading Range	α	CR	AVE	HTMT<0.9
Motivation	¹ 13 ² (16)	0.41-0.67	0.81	0.82	0.67	Yes
Employee Performance	¹ 12 ² (14)	0.52-0.77	0.86	0.88	0.62	Yes

Note. *k* =number of items, 1= Number of items retained, 2=total number of items, CR=Composite Reliability, AVE=Average Variance Extracted

Upon initial calculation of psychometric properties, it was found that the AVE value for both of the constructs was less than 0.3. In this case, Hair et al. (2023) suggests to remove items with item loading less than 0.4. Guided by initial analysis, items number 8, 10 and 15 from employee motivation and item number 3 and 10 from employee performance questionnaire were removed from the model. After removing the indicators with loading less than 0.2, All constructs had AVE values above the 0point 6 cutoff indicating satisfactory convergent validity. (Hair et al., 2014). Furthermore, following the suggestions by Henseler et al. (2015) the researchers also conducted the Heterotrait-Monotrait (HTMT) ratio test. It is recommended that all construct pairs have HTMT values below 0. 9 to

prove robustness of model. The data reported in Table 1 meets this threshold, and further establishes the discriminant validity of this variables of this study.

Table 2

Collinearity Statistic (VIF) – Inner Model

	VIF
Educational Level -> Employee Performance	1.452
Employee Motivation -> Employee Performance	1.834
Gender -> Employee Performance	1.509
Grade -> Employee Performance	1.078

The inner model is used to analyze the VIF values. This tool refers to quantify the variance of the coefficients in the regression that will be considered as the term multicollinearity. In this study the data set range is 1.07 to 2.22 showing that the impact of multicollinearity is low to moderate and the instrument variables do not significantly increase the variance. It was therefore concluded that there was a respectable level of independence between the constructs in the data set. Their intercorrelations are minimal.

Testing the Study's Hypotheses

H1: There is a significant association between employee motivation and employee performance in Pakistan's public sector.

H2: Education level, gender, and cadre have a moderating effect on the association between employee motivation and employee performance in Pakistan's public sector.

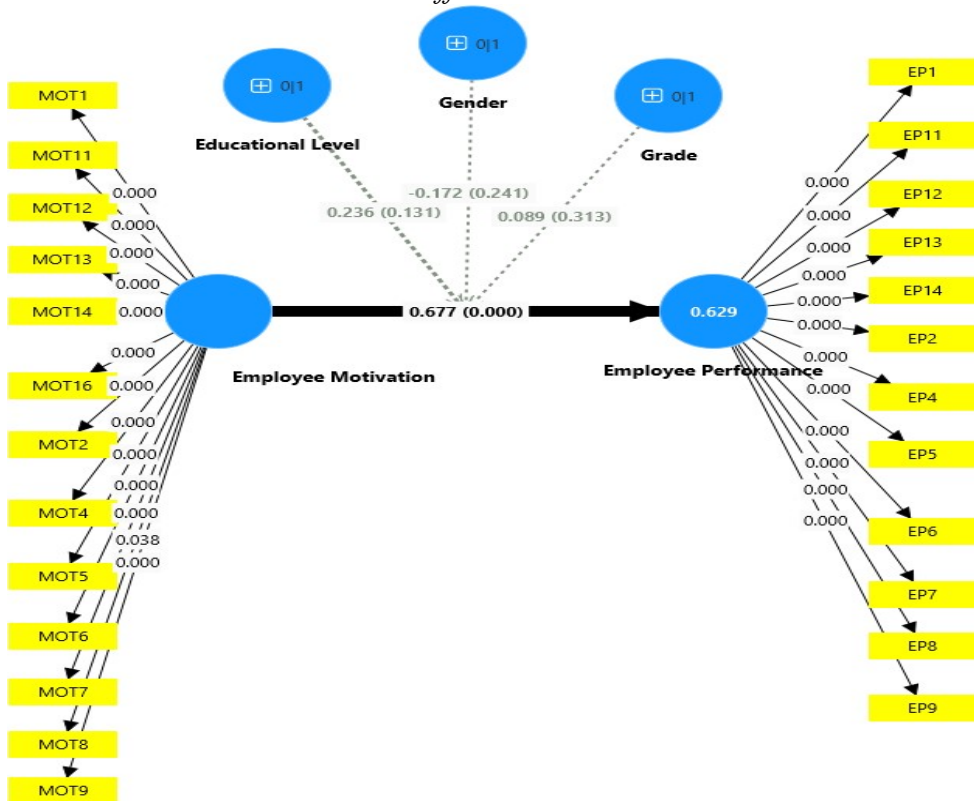
Table 3

Direct & Indirect Effects

Path	β	SE	t	p
Employee Motivation → Employee Performance	0.70	0.07	0.61	0.00
Educational Level → Employee Performance	0.05	0.10	0.51	0.61
Gender → Employee Performance	0.01	0.10	0.13	0.90
Grade → Employee Performance	-0.02	0.08	0.22	0.83
Educational Level*Employee Motivation → Employee Performance	0.22	0.15	1.42	0.16
Gender*Employee Motivation → Employee Performance	-0.18	0.15	1.19	0.24
Grade*Employee Motivation → Employee Performance	0.08	0.09	0.94	0.34

The direct and interaction effects between the study's variables are shown in Table 3. A bootstrapping approach was used for this (using 5000 resamples). Employee motivation has a strong positive impact on employee performance according to findings in Table 3 ($\beta = 0.70$ $p = 0.000$). However, there is no significant difference in employee motivation and performance between education level gender and grade ($\beta = 0.057$ $p = 0.611$, $\beta = 0.007$ $p = 0.896$, and $\beta = -0.023$ $p = 0.830$ respectively). Additionally, the interaction between employee motivation and education level gender and grade is not significant for employee performance ($\beta = -0.211$ $p = 0.156$, $\beta = -0.171$ $p = 0.235$, and $\beta = 0.086$ $p = 0.345$). One could argue that grades gender and educational attainment have no bearing on the relationship between employee motivation and performance. Thus, while the results of this study do not support hypothesis 2, they do support hypothesis 1.

Figure 1
Moderation Model with Path Coefficient's and P-Values



Discussion

Employee motivation is an important element in organizational settings, especially in the public sector, to govern the affairs of state in the country like Pakistan (Saher et al., [2020](#)). The public sector mainly provides services and enforcing the rule of law through the public sector workforce that needs a motivation to draw a best outcome in the form of performance and satisfaction of general public (Rosenbloom et al., [2022](#)). The public sector of Pakistan usually faces unique challenges as compared to the private sector organizations due bureaucratic systems, limited resources, and rigid hierarchical structures (Amber et al., [2019](#)).

Employee motivation has a strong, significant and positive effect on Pakistan's public sector (Khalid et al., [2016](#)). The uniqueness of each employee's motivating factors necessitates a nuanced understanding by organizations. Some thrive on acknowledgment and praise, while others are fueled by financial incentives (Honore, [2009](#)). Acknowledging these individual variances is imperative, as it directly impacts the quality of work and the overall work ethic within an organization. The public sector employees are supposed to serve public but unfortunately seen as a missing element which can only be changed through employee motivation and adding value in the society and raising the standard of living of humans without ignoring the ethical canons. Instead, a mix of intrinsic and extrinsic factors comes into play, including job security, a sense of duty to the public, and opportunities for career progression. Public sector's motivation often differs from that of private sector's as drivers are not solely financial. The phenomenon of Pakistan's public sector motivation is a complex one due to the factors like bureaucracy, limited career growth, political interference, rigid rules and procedures etc (Kjeldsen & Hansen, [2018](#)).

The performance of public sector employees is directly influenced by authority, culture of organization, motivation, and external environmental factors. In Pakistan, the performance of public sector employees has been a matter of concern, with reports of inefficiency, delays in service delivery, and lack of accountability. Improving motivation and performance in public sector of Pakistan requires a merit-based evaluations, rather than seniority and political connections. There is a dire need to introduce key performance indicators (KPIs) along with accountability for their deeds (Shah et al., [2015](#)).

Limitations

Despite the strengths of current research to establish the correlation between motivation of employee and performance of employee in the Pakistan public sector, this study is not without its limitations. The study is cross-sectional, and therefore, may not allow for causal relationships to be concluded. Furthermore, subjectivity arises from the use of self-generated information such that the levels of motivation and performance identified may not reflect accurate realities. Future research may overcome these limitations by using longitudinal research designs and including objective measures of organizational performance.

Conclusion

Numerous challenges are faced by motivation of employee and performance of the employee in Pakistan's public sector, including bureaucratic inefficiencies, limited financial incentives, and a lack of performance accountability. However, by implementing reforms such as improved performance measurement systems, leadership training, and recognition programs, the public sector can enhance both motivation and performance. Addressing these concerns is essential for improving service delivery and achieving broader development goals.

The core target of this study is to empirically determine the basic features of human resource management; hiring, training, evaluation, promotion and employee behavior that will impact employee performance. The results suggested that hiring has significant effect on performance of the employee. Although using cognitive tests to select employee has grown in popularity, it has positive impact on performance of the employee.

Promotion has significant but negative impact on performance of the employee, sometimes it happens when employee promoting in term of job enlargement. Both groups of the components for the expansion of jobs are supported by the empirical analysis. That is why results suggested the effect of such promotion has adverse impact on performance of employee, particularly in Pakistan's public and private sectors. Moreover, in government departments there are predefined succession criteria, so performance of employee is not affected by promotion. Additionally, protection motivation and employee behavior were found to have a significant impact on performance.



Conflict of Interest

The author of the manuscript has no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

Data will be provided by the corresponding author upon reasonable request.

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References

- Akinyele, K. O., Demek, K. C., & Tian, Y. (2023). Self-interest or public interest: The role of incentive schemes in public sector employees' decisions. *Accounting & the Public Interest*, 23(1), 1–22. <https://doi.org/10.2308/API-2021-010>
- Alanizan, S. (2023). How does employee satisfaction and motivation affect productivity. *International Journal of Business and Management*, 18(2), 55–60.
- Ali, A., Saleem, S., Bashir, M., Riaz, W., & Sami, A. (2017). Mediating role of citizens' participation between public service motivation, political interference and local government performance: A case study of municipalities of Punjab. *Abasyn Journal of Social Sciences—Special Issue: AIC, 2017*, 250–264.
- Ali, E., & Elias, H. (2023, January 26–27). *Potential application of HR analytics to talent management in the public sector: A literature review* [Paper presentation]. Proceedings of International Conference on Cyber Management and Engineering. Bangkok, Thailand. <https://doi.org/10.1109/CyMaEn57228.2023.10051107>
- Alkandi, I. G., Khan, M. A., Fallatah, M., Alabdulhadi, A., Alanizan, S., & Alharbi, J. (2023). The impact of incentive and reward systems on employee performance in the Saudi primary, secondary, and tertiary industrial sectors: A mediating influence of employee job satisfaction. *Sustainability*, 15(4), Article e3415. <https://doi.org/10.3390/su15043415>

- Alkhalailah, R., & Mjlae, S. (2023). The influence of human resource management practices on employee performance: A case study of Al-Balqa applied university. *Problems and Perspectives in Management*, 21(1), 279–290. [https://doi.org/10.21511/ppm.21\(1\).2023.24](https://doi.org/10.21511/ppm.21(1).2023.24).
- Amber, Q., Ahmad, M., Khan, I. A., & Hashmi, F. A. (2019). Knowledge sharing and social dilemma in bureaucratic organizations: Evidence from public sector in Pakistan. *Cogent Business & Management*, 6(1), Article e1685445. <https://doi.org/10.1080/23311975.2019.1685445>
- Amin, S., Shahnaz, M., & Mukminin, A. (2024). The impacts of the servant leadership on the innovative work behaviors: Looking at the role of public service motivation and employee engagement. *Journal of Chinese Human Resources Management*, 15(2), 41–54.
- Ansari, S. (2019). *An evaluation of the employee motivation based on two-factor theory (A study of selected Nepalese organizations)* [Master thesis, Purbanchal University]. Figshare. https://figshare.com/articles/thesis/An_Evaluation_of_Employee_Motivation_Based_on_Two-Factor_Theory_pdf/20066171?file=35886671
- Anwar, F., & Humayun, A. A. (2023). How empowered leadership in Pakistan's public sectors enhances employee creativity a mediating role of creative self-efficacy. *Journal of Tourism, Hospitality, and Services Industries Research*, 3(01), 19–33. <https://doi.org/10.52461/jths.v3i01.2010>
- Bashir, M., Wright, B. E., & Hassan, S. (2023). The interactive influence of public service motivation, perceived reward equity, and prosocial impact on employee engagement: A panel study in Pakistan. *Public Management Review*, 25(7), 1213–1237. <https://doi.org/10.1080/14719037.2021.2013069>
- Bisogno, M., Di Carlo, A., Iuliano, G., & Matonti, G. (2024). Assurance of the sustainability report of municipally-owned entities. *Public Money & Management*. Advance online publication. <https://doi.org/10.1080/09540962.2024.2424407>
- Bordel, B., & Alcarria, R. (2024). Enhancing the students' motivation and learning in network engineering courses through artificial intelligence tools and applications. In F. J. García-Peñalvo, M. L. Sein-Echaluce, & A. Fidalgo-Blanco (Eds.), *Innovation and technologies for the digital*

transformation of education: European and Latin American perspectives (pp. 21–31). Springer Nature.

- Breaugh, J. (2021). Too stressed to be engaged? The role of basic needs satisfaction in understanding work stress and public sector engagement. *Public Personnel Management*, 50(1), 84–108. <https://doi.org/10.1177/0091026020912516>
- Butera, F., Dompnier, B., & Darnon, C. (2024). Achievement goals: A social influence cycle. *Annual Review of Psychology*, 75(1), 527–554. <https://doi.org/10.1146/annurev-psych-013123-102139>
- Chen, Y. C., Ahn, M. J., & Wang, Y. F. (2023). Artificial intelligence and public values: Value impacts and governance in the public sector. *Sustainability*, 15(6), Article e4796. <https://doi.org/10.3390/su15064796>
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual review of organizational psychology and organizational behavior*, 4(1), 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Ding, M., & Wang, C. (2024). Relationship between leadership style and public service motivation: A meta-analysis. *Social Behavior and Personality: An international Journal*, 52(2), 1–12. <https://doi.org/10.2224/sbp.12980>
- Edet, J., Tom, E., & ItoroBassey, N. B. U. (2023). Reward administration and workers performance in Akwa Ibom state civil service. *International Research Journal of Economics and Management Studies*, 2(2), 269–284. <https://doi.org/10.56472/25835238/IRJEMS-V2I2P130>
- Farley, S. B., Yoon, H. J., & Padilla, C. (2021). What values will define and guide OD in the future. *Organization Development Review*, 53(1), 27–34.
- Haider, S., Bao, G., Larsen, G. L., & Draz, M. U. (2019). Harnessing sustainable motivation: A grounded theory exploration of public service motivation in local governments of the state of Oregon, United States. *Sustainability*, 11(11), Article e3105. <https://doi.org/10.3390/su11113105>

- Hair, J. F. Jr, Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hair, J. Jr, Hair, J. F. Jr, Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2023). *Advanced issues in partial least squares structural equation modeling*. Sage publications.
- Haq, M. U., Qazi, M. W., Kamran, M., & Yosaf, M. (2023). Impacts of Extrinsic and Intrinsic reward on Employee's performance: A study of banking sector in Pakistan. *Journal of Management Practices, Humanities and Social Sciences*, 7(5), 1–12. <https://doi.org/10.33152/jmphss-7.5.1>
- Hassan, S., Ansari, N., & Rehman, A. (2023). Public service motivation, workplace spirituality and employee well-being: A holistic approach. *Journal of Economic and Administrative Sciences*, 39(4), 1027–1043. <https://doi.org/10.1108/JEAS-05-2020-0072>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hernandez-Espallardo, M., Osorio-Tinoco, F., & Rodriguez-Orejuela, A. (2018). Improving firm performance through inter-organizational collaborative innovations: The key mediating role of the employee's job-related attitudes. *Management Decision*, 56(6), 1167–1182. <https://doi.org/10.1108/MD-02-2017-0151>
- Honore, J. (2009). Employee motivation. *Consortium Journal of Hospitality & Tourism*, 14(1), 63–75.
- Indrawati, N. K., & Muljaningsih, S. (2022). Achieving competitive advantage through spiritual capital, innovation work behavior, and organizational learning. *Problems and Perspectives in Management*, 20(2), 426–437. [http://dx.doi.org/10.21511/ppm.20\(2\).2022.35](http://dx.doi.org/10.21511/ppm.20(2).2022.35)
- Kalwar, M. S., Shah, S. M. A., & Hussain, N. (2023). Role of employee-related factors for employee performance in private sector banks of Sindh, Pakistan. *Pakistan Journal of Humanities and Social*

Sciences, 11(2), 1617–1626.
<https://doi.org/10.52131/pjhss.2023.1102.0463>

- Kandiyali, J., & Gomberg, P. (2024). Communism should not be post-work. In D. Celentano, M. Cholbi, J. Deranty, & K. P. Schaff (Eds.), *Debating a Post-Work Future: Perspectives from philosophy and the social sciences* (177–196). Routledge.
- Kazmi, S. I. H., Nasir, N., & Cheema, S. M. (2023). Predictors of job satisfaction in teachers of female public sector Universities. *Journal of Management and Administrative Sciences*, 3(2), 89–111.
- Khair, R., & Baniamin, H. M. (2024). Motivation to serve and vision for future: Perspectives of bangladeshi civil servants. In A. Haque & Y. Salman (Eds.), *Perspectives and practices of public administration in South Asia: Post-pandemic recovery and sustainable development agenda* (pp. 171-191). Springer Nature.
- Khalid, M., Rehman, C. A., & Ilyas, D. M. (2016). HRM practices and employee performance in public sector organizations in Pakistan: An empirical study. *International Journal of Management Sciences and Business Research*, 3(2), 69–77.
- Khan, J., & Burdey, M. B. (2021). Enhancing job performance and innovative work behavior through public service motivation-a case study of employees working in federal government of Pakistan. *Journal of the Research Society of Pakistan*, 58(1), 269–282.
- Khusanova, R., Kang, S. W., & Choi, S. B. (2021). Work engagement among public employees: Antecedents and consequences. *Frontiers in Psychology*, 12, Article e684495.
<https://doi.org/10.3389/fpsyg.2021.684495>
- Kjeldsen, A. M., & Hansen, J. R. (2018). Sector differences in the public service motivation–job satisfaction relationship: Exploring the role of organizational characteristics. *Review of Public Personnel Administration*, 38(1), 24–48.
<https://doi.org/10.1177/0734371X16631605>
- Liu, W., & Liu, Y. (2022). The impact of incentives on job performance, business cycle, and population health in emerging economies. *Frontiers in Public Health*, 9, Article e778101.
<https://doi.org/10.3389/fpubh.2021.778101>

- Leman, N. P., & Gustomo, A. (2023). Transforming employee motivation to enhance employee performance at PT Bio Farma (Persero). *Journal of World Science*, 2(2), 255–268. <https://doi.org/10.58344/jws.v2i2.221>
- Malik, M. E., & Danish, R. Q. (2020). Impact of motivation to learn and job attitudes on organizational learning culture in a public service organization of Pakistan. *South Asian Studies*, 25(2), 217–235.
- Mehmood, T., & Lee, J. (2023). An investigation of the performance management system of civil servants in the provincial government of Khyber Pakhtunkhwa. *Global Economics Review*, 8(2), 401–413. [https://doi.org/10.31703/ger.2023\(VIII-II\).29](https://doi.org/10.31703/ger.2023(VIII-II).29)
- Nguyen, H. D., Chau, T. N., & Huynh, Q. V. T. (2023). The impact of team support, financial incentives and public sector motivation on employee motivation: An empirical study of the public sector in Vietnam. *Asia-Pacific Journal of Business Administration*, 16(5), 1166–1181. <https://doi.org/10.1108/APJBA-09-2021-0460>
- Nizam, K., & Hameed, S. (2023). The impact of knowledge sharing on job performance in banking sector of Pakistan—mediating role of affective commitment. *Pakistan Journal of Social Sciences*, 43(1), 25–38.
- Nyoni, G. S. (2024). *The effect of transformational leadership on the performance of a construction project team at a selected construction company in Cape Town* [Doctoral dissertation, Cape Peninsula University of Technology]. Cape Peninsula University of Technology Libraries. <https://etd.cput.ac.za/handle/20.500.11838/4158>
- Raziq, A., & Maulabakhsh, R. (2015). Impact of working environment on job satisfaction. *Procedia Economics and Finance*, 23, 717–725. [https://doi.org/10.1016/S2212-5671\(15\)00524-9](https://doi.org/10.1016/S2212-5671(15)00524-9)
- Rosenbloom, D. H., Kravchuk, R. S., & Clerkin, R. M. (2022). *Public administration: Understanding management, politics, and law in the public sector*. Routledge.
- Saha, S., & Kumar, S. P. (2018). Organizational culture as a moderator between affective commitment and job satisfaction: Empirical evidence from Indian public sector enterprises. *International Journal of Public Sector Management*, 31(2), 184–206. <https://doi.org/10.1108/IJPSM-03-2017-0078>

- Saher, N., Matloob, T., & Shabbir, M. S. (2020). Exploring the role of Biradari in career growth: Evidence from public sector organizations of Islamabad. *Journal of Research in Emerging Markets*, 2(3), 13–24.
- Schnell, S., & Gerard, C. (2022). From bureaucrats to entrepreneurs to networkers, advocates, and empaths: Reappraising human resources management ideals and practices in public administration. *Review of Public Personnel Administration*, 43(4), 652–676. <https://doi.org/10.1177/0734371x221117283>
- Serhan, C., Achy, E.A., & Nicolas, E. (2018). Public sector employees' motivation: Causes and effects. *People: International Journal of Social Sciences*, 4(2), 49–55. <https://dx.doi.org/10.20319/pijss.2018.42.4955>
- Shah, S. K. A., Ali, N., & Ali, Z. (2015). Declining employee performance in public sector organizations: An etiological study of public sector organizations in Pakistan. *Journal for Studies in Management and Planning*, 1(5), 55–64.
- Shahzad, K., Khan, S. A., Iqbal, A., & Shabbir, O. (2023). Effects of motivational and behavioral factors on job productivity: An empirical investigation from academic librarians in Pakistan. *Behavioral Sciences*, 13(1), Article e41. <https://doi.org/10.3390/bs13010041>
- Sherli, J., & Mayakannan, T. (2023). A study on an investigation into employee motivation in organizations. *Journal of Survey in Fisheries Sciences*, 10(2S), 1328–1333. <https://doi.org/10.17762/sfs.v10i2S.867>
- Shi, S. (2023, November 11–13). *The reform of human resource system in the public sector under the new public management system* [Paper presentation]. Proceedings of International Conference on Public Service, Economic Management and Sustainable Development. Wuhan, China.
- Smiley, R. T. (2023). *Human resource professionals' perceptions of employee recruitment and retention using linking total compensation to performance theory* [Doctoral dissertation, Walden University]. ScholarWorks. <https://scholarworks.waldenu.edu/dissertations/14776/>
- Todaro, D. (2024). Artificial intelligence in the public sector in Shanghai: Conceptualization, context, and capacity. In D. Todaro (Ed.), *The use of artificial intelligence in the public sector in Shanghai: Ambition, capacity and reality* (pp. 19–150). Springer Nature Singapore.

- Vitalis, O. U. (2024). The comparative analysis of employees job satisfaction and motivational factors in public vs private organization in South East. *International Journal of Financial Research and Business Development*, 4(7), 97–118.
- Vivona, R., Demircioglu, M. A., & Raghavan, A. (2020). Innovation and innovativeness for the public servant of the future: What, why, how, where, and when. In H. Sullivan, H. Dickinson, & H. Henderson (Eds.), *The Palgrave handbook of the public servant* (pp. 1–22). Springer
- Weiwei, H. E. (2023). The effect of employee motivation on employee performance: A case of a technological small and medium enterprise. *Procedia of Multidisciplinary Research*, 1(4), Article e4.
- West-Barnett, A. M. (2017). *South Carolina state government: Organizational succession plans* [Doctoral dissertation, Walden University]. Scholarworks. <https://scholarworks.waldenu.edu/dissertations/3514/>
- Zahari, N. (2023). *Transformational leadership style and talent management practices in improving employee engagement in the Malaysian public sector: The mediating role of public service motivation* [Doctoral dissertation, University of Nottingham]. Nottingham eTheses. <https://eprints.nottingham.ac.uk/73717/>
- Zahari, N., & Kaliannan, M. (2023). Antecedents of work engagement in the public sector: A systematic literature review. *Review of Public Personnel Administration*, 43(3), 557–582. <https://doi.org/10.1177/0734371X221106792>
- Zahra, A., & Jadoon, M. Z. I. (2016). Autonomy of public agencies in Pakistan: Does structure matter? *International Journal of Public Sector Management*, 29(6), 565–581. <https://doi.org/10.1108/IJPSM-02-2015-0019>