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*Research Paper*

# Impacts of Performance-based Pay on Employee Productivity; Mediated by Employee Training

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## ABSTRACT

Employee productivity plays a vital role in the success of SMEs. Numerous factors affect employee productivity including performance-based pay and training programs. This study focused on finding the direct path relationship of performance-based pay and employee training concerning employee productivity. Furthermore, the study examined the indirect path effects of performance-based pay through employee training towards employee productivity. Two hundred thirty employees of SMEs were selected to respond to the structured questionnaire. Findings of the study revealed the positive relationship among performance-based pay, training and employee productivity. Also, the positive mediation of employee training was examined in the present study between the relationship of performance-based pay and employee productivity. The present study has substantial practical implications for SMEs.

***Keywords:*** Performance-based Pay (PBP), Employee training (ET), Employee productivity (EP), SMEs.

## INTRODUCTION

In today's challenging business environment firms continuously seeks maximum quality output through human capital. Employee productivity is a significant factor being considered by employers to raise profits in intense competition in the industry. Employee productivity refers to the volume of the same work done efficiently by an employee concerning others. Productivity is the real value which employees give to the organisation in return for the cost of keeping them. Performance-based pay plays a vital role in employee productivity. Performance-based pay plans offer extra monitory rewards to well-performing employees. [1] Many studies found positive relationship between performance-based pay and employee productivity. [2-4] Furthermore, firms focus on enhancing employee productivity through training programs. [5-9]

The present study offers additional evidence on the positive effects of performance-based pay on employee productivity. This study also explores performance-based pay as a critical motivator for employees to actively engage in training sessions offered by the firms. Performance-base pay combined with training programs has a significant relationship to increase employee productivity.

## LITERATURE REVIEW

Several organizations seek to improve employee productivity. Higher level of employee productivity leads to higher organisational performance. [10] Compensation packages play a vital role in motivating employees to optimize their productivity. One of the essential parts of the compensations plans consists of variable or fixed pay; linked to employee performance or input. [11] The best type of pay is still under debate. We offer additional evidence by focusing on individual performance-based pay in SMEs.

Performance-based pay refers to pay-increase while employees work to their best knowledge being in their excellent skills; essential for firm performance. [12] Employees' skills need to be improved by regular training sessions. Employees' willingness to participate in training programs is often crucial. Performance-based pay motivates employees to perform efficiently and earn pay-increase. According to scholars linking training programs with monetary incentives (performance-based pay) increases employees' interest in training. [13]

Scholars indicated a positive relationship between well-designed pay policies and employee productivity. [4] Performance-based salary helps firms to entrance well-achieving employees. Scholars indicated that firms using performance-based pay perform high and remain flexible by utilizing maximum employee potential to optimize business productivity. [14] Scholars further explained that performance rewards and increments enhance individual and firm productivity. [3] Research deliberates that performance-based pay boost determinations and employee productivity. [15] Scholars observed that pay correlates with productivity, usually when associated with the proportion of work done by a particular employee indicated that performance-based pay increases productivity). [2,16,17,18] Researcher further argues that performance-based pay effectively motivates employees to increase productivity. [19-21]

Companies invest comprehensively in the training and development of employees to enhance critical decision-making skills according to the market scenario. [6] Training has advantages of higher employee retention, noticeable increase in the motivation, productivity and a long-term sense of ownership in employees. [22] Training plays vital role in developing critical thinking skills to increase the employees' productivity [8,9] The quality of skills and practices of employees can be enhanced with the extensive employee training programs to improve their decision-making skills, peer relations, communications skills, and critical thinking which in result increases the organisational targets achievement. [7,23] Companies achieve high productivity by successful launch of training sessions. [5] Organizations usually believe in training and development as a critical factor for enhancing employee productivity to achieve organisational goals. [24]

Past studies revealed that performance-based pay positively affects employee productivity. [2-4,15-18] Also, training plays a vital role in enhancing employee productivity. [5-8] The positive correlation among these variables predicts a positive mediation of employee training. This study provides additional evidence on mediating role of employee training between the relationship of performance-base pay and employee productivity.

*$H_1$: Performance-based pay motivates employees to take part in training sessions.*

*$H_2$: Performance-based pay positively affects employee productivity.*

*$H_3$: Employee training positively affects employee productivity.*

*$H_4$: Training positively mediates between the relationship of performance-based pay and employee productivity.*

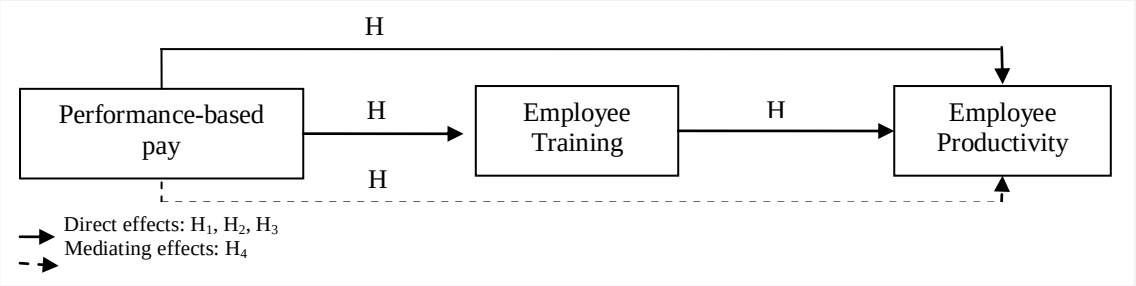


**Figure 1: Research Framework**

## MATERIALS AND METHODS

This study collected the relevant data from the respondents based on a quantitative approach. For the purpose, a questionnaire was administered to receive data from 325 employees of the SMEs in Pakistan. The measurement scales were adopted from past studies and adapted to suit the context of the present research. Employee productivity was measured by using the scale developed by scholars. [25] Performance-based pay was measured by using the scale developed by scholars in previous studies. [26] Furthermore, effects of training were measured by using the scale developed in past research. [27,28] Present study based on simple random sampling. A five-point Likert scale was used to measure all the items "1=strongly agree to 5=strongly disagree".

### Statistical Methods

Structured equation modelling (SEM) was used to analyze the collected data by using Smart PLS. Numerous tests, for instance, item reliability, composite reliability, convergent validity and Cronbach alpha performed on the collected data. Furthermore, SEM was applied to test the individual hypothesis. The regression analysis was used to find out direct and indirect effects of the constructs. Different scholars indicated SEM as a flexible model for analyzing the impact of predictor, with the help of criterion available. [29,30]

## RESULTS

### Descriptive statistics

Employees of SMEs were approached to response to the constructed questionnaire. A total of 230 questionnaires were distributed, and 194 surveys were received back wholly responded. 84% response rate was recorded for the present study. Among the authenticated responses the frequency of male respondents was 151 (77.8%), and females were 43 (22%). Age distribution among the respondents was recorded; 20 to 30 years 51%, 31 to 40 years 34%, 41 to 50 years 12% and 51 to 60 years 3%. The education descriptives analysed as high school 9%, bachelors degree holder 43% and masters degree holders 48%.

### Measurement Model Assessment

**Table 1: Measurement Model**

| | Items | Loadings | AVE | CR | CA | DV (Fornell Larcker Criteria) |
|---|---|---|---|---|---|---|
| Employee Productivity (EP) | EP1 | 0.692 | 0.501 | 0.833 | 0.751 | * 0.708 |
| | EP2 | 0.636 | | | | |
| | EP3 | 0.716 | | | | |
| | EP4 | 0.776 | | | | |
| | EP5 | 0.712 | | | | |
| Performance-based Pay (PBP) | PBP1 | 0.670 | 0.52 | 0.810 | 0.726 | *0.648 |
| | PBP2 | 0.770 | | | | |
| | PBP3 | 0.683 | | | | |
| | PBP4 | 0.666 | | | | |
| | PBP5 | 0.530 | | | | |
| | PBP6 | 0.536 | | | | |
| Employee Training (ET) | ET1 | 0.787 | 0.582 | 0.874 | 0.821 | *0.763 |
| | ET2 | 0.765 | | | | |
| | ET3 | 0.768 | | | | |
| | ET4 | 0.763 | | | | |
| | ET5 | 0.730 | | | | |

1. *All items loadings 0.4-0.7 indicates indicator reliability.* [31,32]
2. *All average variance extracted (AVE) >0.5 indicates convergent reliability.* [29]
3. *All composite reliability (CR) >0.7 indicates internal consistency.* [31,33]
4. *All Cronbach's alpha >0.7 indicates indicator reliability.* [34]
5. **The diagonals are the square root of AVE of the latent variables and shows highest in column and row.*

"Table 1" exhibits the measurement model assessment findings. The *Item reliability* lies within the rule of thumb range 0.40 to 0.70. [31,32] Internal consistency reliability (*composite reliability, CR*) for the present study ranges from 0.810 to 0.874 as per rule of thumb. [31,33] *Convergent validity (AVE)* average variance extracted also met the threshold of at least 0.50. [29] Similarly, *Cronbach's alpha (CA)* lies within the range of 0.7 to 0.9; and met researchers' rule of thumb. [34] Findings show that the square roots of the AVE are >0.50; furthermore, the values of AVE are higher than the correlation in the latent variables. [35]

## Correlation

"Table 2" exhibits the latent variable correlation. Findings show that the relationship between employee performance-based pay and employee productivity is positive (0.416), positive relationship between employee training and employee productivity (0.561). Similarly, a positive relation was examined between performance-based pay and employee training (0.376).

**Table 2: Latent Variable Correlations**

| | *Employee Productivity* | *Employee Training* | *Performance-based pay* |
|---|---|---|---|
| Employee Productivity | 1 | 0.561 | 0.416 |
| Employee Training | 0.561 | 1 | 0.376 |
| Performance-based pay | 0.416 | 0.376 | 1 |

## Hypothesis Testing

"Table 3" shows the research findings on the constructed hypothesis. $H_1$: findings show that performance-based pay positively motivates employees to take part in training programs (β = 0.376, t = 4.835, P = 0.000). The findings of the study were in line with the previous studies. [13] Similarly, $H_2$: shows that performance-based pay positively affects employee productivity and a significant relationship was examined (β = 0.240, t = 3.246, P = 0.000). The findings of the study were in line with the previous studies. [2,3,4,17] Furthermore, $H_3$: results shows that employee training significantly increases the employee productivity (β = 0.471, t = 6.279, P = 0.000). The findings of the study were in line with the previous studies. [5-9] $H_4$: findings show that employee training positively mediates between the relationship of performance-base pay and employee productivity (β = 0.177, t = 3.265, P = 0.000). All the findings follow the rule of thumb p<0.01 and t>2. The present study has examined an additional evidence for the mediating role of training programs in SMEs of Pakistan. $R^2$: refers to the coefficient of determination for this model. Findings show that 56% (0.564) change occurs in EP due to PBP. Similarly, 33% (0.337) change occurs in Ep due to ET. Both paths in present study were found positive and significant.

**Table 3: Hypothesis testing**

| | β | Mean | SD | t-Value | P-Value | Decision |
|---|---|---|---|---|---|---|
| $H_1$: PBP→ET | 0.376 | 0.396 | 0.078 | 4.835 | *0.000 | Supported |
| $H_2$: PBP→EP | 0.240 | 0.239 | 0.074 | 3.246 | *0.000 | Supported |
| $H_3$: ET → EP | 0.471 | 0.477 | 0.075 | 6.279 | *0.000 | Supported |
| $H_4$: PBP→ET → EP | 0.177 | 0.191 | 0.054 | 3.265 | *0.000 | Supported |

## DISCUSSION AND CONCLUSION

This study has examined the direct relationship between performance-based pay and employee productivity. The findings of the study are supported by the previous studies 16. [2-4,15-18] The present

study also explored the effects on employees' willingness to take part in training session; motivated by the performance-based pay systems. Previous studies have argued that employees feel driven by training programs. [13]

Furthermore, the current study have also examined the positive effects of employee training on employee productivity in SMEs in Pakistan. Many scholars have studied similar relations. [5-9] The study has examined the mediation effects of employee training between the relationship of performance-based pay and employee productivity in SMEs of Pakistan. This study is based on many ground realities that employee productivity is vital for success of any organisation especially for SMEs. Developing countries like Pakistan needs to focus on success of SMEs to contribute in economic growth of the country. This study highlights the importance of employee productivity of SMEs influenced by performance-based pay. Managers at SMEs need to focus on attractive performance-based plans to attract employee to increase their productivity. Furthermore, training programs help in improving the situation further.

**Practical implications**

Organisations always research for ways to increase their employees' productivity. Performance-based pay is an attractive feasible way to reward wee-performing employees. Performance-based compensation does not only encourage well-performing employees but also attracts other employees to perform well too and get additional rewards. In light of the findings of the present study managers at SMEs can develop performance-based pay strategies to motivate their employees. Furthermore firms could develop specialized training programs to attract employees to perform well in results of training sessions. Association of performance-based pay and training has positive impacts on employee productivity.

**Future research recommendations**

The present study has achieved its objectives. The positive and significant links found in the variables of this study. The study validates the increase in employee productivity through employee training and performance-based pay. The future research many consider other valuable factors such as other forms of compensation, fixed pay, combinations of fixed and variable pay, flexible pay plans, more specification in training and development could be considered such as training in particular set of skills related to higher employee productivity.

**Limitations of Study**

The present study has achieved its outcomes. Still, there were some limitations associated with this study. Time limit was a constraint to gather maximum responses from cross-industrial sectors. Further in-depth longitudinal studies could be performed to check the selected variable in different organizations. Sample size could be included by involving multiple industries (private, government, semi-government sectors). These findings are purely concerned with SMEs perspective; however, particular cultural prospects may vary.

## REFERENCES

1. Arthur L. What Is a Performance-Based Pay Plan? [Internet]. 2013 [cited 2019 Mar 15]. Available from https://bizfluent.com/info-8398911-performancebased-pay-plan.html
2. Michael J, Vest K, Dow S, Jusanne M. Vest and Steven E. Markham. Journal of Business and Psychology. 2000; 14(4):553-562.
3. Montoya S, Graham J. Pay for Performance: Social Science Perspective. In Modernizing the Federal Government: Paying for Performance. Santa Monica, CA; Arlington, VA; Pittsburgh, PA: RAND Corporation. 2007:3-6.
4. Damiani M, Pompei F, Ricci A. Wages and Labor productivity: The role of performance-related pay in Italian firms. Rome, Industrial Relations, Productivity and Growth in Italy, organized by AISRI and AIEL, University of Rome, La Sapienza, 2013.

5. Ichniowski C, Shaw K, Prennushi G. The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines. The American Economic Review. 1997; 87(3):291-313.
6. Tai WT. Effects of Training Framing, General Self-efficacy and Training Motivation on Trainees' Training Effectiveness. Emerald Group Publishers. 2006; 35(1):51-65.
7. Konings, Jozef, Vanormelingen S. The Impact of training on Productivity and Wages: Firm Level Evidence, Discussion paper No. 244, Available at SSRN, 2009.
8. Elnaga A. Imran, A. The Effect of Training on Employee Performance. European Journal of Business and Management, 2013; 5(4):137-147.
9. "Job Training: Costs, Returns, and Wage Profiles." In Market Failure in Training? New Economic Analysis and Evidence on Training of Adult Employees, edited by David Stern and Jozef M. M. Ritzen. Berlin: Springer-Verlag, 1991.
10. Hanaysha J. Improving employee productivity through work engagement: Empirical evidence from higher education sector. Management Science Letters. 2016; 6:61-70.
11. Lazear, Edward. "Agency, Earnings Profiles, Productivity and Hours Restrictions." American Economic Review. 1981; 71:606-620.
12. Mohrman A, Mohrman S, Odden A. Aligning Teacher Compensation with Systemic School Reform: Skill-Based Pay and Group-Based Performance Rewards. Educational Evaluation and Policy Analysis. 1996; 18(1):51-71.
13. Hansen M. 2018. How To Get Employees Excited About Training: 10 Ways To Motivate Them [Internet]. 2019 [cited 2019 Aug 15] Available from https://www.edgepointlearning.com/blog/get-employees-excited-about-training/
14. Jenkins GD, Ledford GE, Jr, Gupta N, & Doty DH. Pay: Practices, payoffs, pitfalls, and prescriptions. American Compensation Association. 1992.
15. Zenger T. Why Do Employers Only Reward Extreme Performance? Examining the Relationships among Performance, Pay, and Turnover. Administrative Science Quarterly. 1992; 37(2):198-219.
16. Folger F, Konovsky MA. Effects of procedural and distributive justice on reactions to pay raise decisions. Academy of Management Journal. 1989; 32:115-130.
17. Stephen E. Condrey J, Edward K. Public Productivity & Management Review. 1993; 17(2):113-115.
18. Heneman RL, Greenberger DB, Strasser S. The relationship between pay for-performance perceptions and pay satisfaction. Personnel Psychology. 1988; 41:745-759.
19. Chemekov [Internet]. 2002 [cited 2019 Aug 20] Available from http://www.chelt.ru/2002/9-02/chemekov_9.html
20. Ichniowski C, Shaw K. Beyond Incentive Pay: Insiders' Estimates of the Value of Complementary Human Resource Management Practices. Journal of Economic Perspectives. 2003; 17(1):155-180.
21. Klos N. Incentive Performance Related Pay and Productivity. Economics Education and Research Consortium. 2006.
22. Pfeffer J. Competitive Advantage through People, Harvard Business School Press. Boston, MA, 1994.
23. Michàl E. Mor Barak PhD (1999) Beyond Affirmative Action. Administration in Social Work. 1999; 23(3-4):47-68, DOI: 10.1300/J147v23n03_04
24. Singh R. Mohanty M. Impact of training practices on employee productivity: A comparative Study. Interscience Management Review. 2012; 2(2):87-92.
25. Chen Y, Tjosvold D. Collectivist values for productive teamwork between Korean and Chinese employees. Working Paper Series, Centre for Asian Pacific Studies [Internet] 2008 [cited 2019 Jul 23]. Available from: http://commons.ln.edu.hk/cgi/viewcontent.cgi?article=1002&context=capswp
26. Heneman HG, Schwab DP. "Pay Satisfaction: Its multidimensional nature and measurement". International Journal of Psychology. 1985; 20:129-149.
27. Cannon-Bowers JA. Salas E, Tannenbaum SI, and Mathieu JE. "Toward theoretically based principles of training effectiveness: A model and initial empirical investigation". Military Psychology. 1995; 7(3):141-164.
28. Aziz S. Developing General Training Effectiveness Scale for the Malaysian

Workplace Learning. Mediterranean Journal of Social Sciences. 2015; 6(4):47-56.
29. Chin WW. Issues and opinion on structural equation modeling. MIS Quarterly. 1998; 22(1):7-16.
30. Gunzler D, Chen T, Wu P, Zhang H. Introduction to mediation analysis with structural equation modeling. Shanghai Archives of Psychiatry. 2013; 25(6):390-394.
31. Hair JF, Ringle CM, Sarstedt M. "PLS-SEM: indeed a silver bullet". Journal of Marketing Theory and Practice. 2011; 19(2):139-152.
32. Duarte PAO, Raposo MLB. "A PLS model to study brand preference: an application to the mobile phone market", Handbook of Partial Least Squares, Springer, Heidelberg, Berlin. 2010; 449-485.
33. Bagozzi RP, Yi Y. "On the evaluation of structural equation models". Journal of the Academy of Marketing Science. 1988; 16(1):74-94.
34. Hinton PR., Brownlow C, McMurray I, Cozens B. SPSS Explained. East Sussex, England: Routledge Inc, 2004.
35. Fornell C, Larcker FD. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research. 1981; 39-50.

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