

Examining Training as a Moderator in the Relationship Between People Analytics and Employee Performance

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How to cite this article: Amandeep Kaur, Veer P. Gangwar, Meenakshi Devi (2024). Examining Training as a Moderator in the Relationship Between People Analytics and Employee Performance. *Library Progress International*, 44(3), 6236-6242.

ABSTRACT

This paper seeks to establish how employee training mediates the relationship between people analytics and employee performance in organized retail stores. People analytics, the use of data to inform human capital decision making, has been popularized as a strategy for increasing workplace productivity. However, the utilization of these analytics can be affected by some factors such as lack and/or poor quality of training programmes for employees.

The following is the research question that is in line with the objective of this research: Is training a moderating factor that will help in cementing the positive relationship between people analytics and employees' performance? The data was collected through a quantitative survey of employees and managers in organized retail stores in Punjab. Data analysis was done using regression analysis to confirm the proposed hypotheses and moderation analysis.

The research evidence shows that with employee training, people analytics has a positive effect on performance as the application of data-driven insights is enhanced. This study highlights the important finding that organizations can achieve more effective people analytics training and ensure better employee outcomes as a consequence by focusing on the areas of greatest benefit.

This research enriches the body of knowledge in human resource analytics through underlining the role of training as an essential element in the enhancement of performance through the application of people analytics. The theoretical findings are applied to HRM and the management of organizations, focusing on the application of analytics and training for human capital.

Keywords: People Analytics, Employee Performance, Training, Moderating role, Quantitative Research, Organized Retail stores, Performance enhancement.

1.1 Introduction

Thus, in the modern world, the focus is to use technologies and data analytics to improve the approaches applied to organizing the workforce, engaging, and achieving high levels of employees' performance. A good example of such practice is people analytics which is defined as the use of data analytics in the management of human resource functions (Marler & Boudreau, 2017). Organizations collect employee data with the intention of using it to improve productivity, employee engagement and performance. However, although there is an understanding of people analytics as a valuable approach, the degree to which it will be successful may be influenced by other factors within the organization, for example, training (Angrave et al., 2016).

As a result, it has been realized that people analytics can be applied to enhance the productivity of the workers who are the main determinants of the success of the organization (Levenson, 2018). Still, using only analytics will not ensure that employees are given the best ways to perform optimally. A number of scholars have pointed out that the training that enables employees to acquire the knowledge and skills in order to deal with technological

change and change in the workplace is key to enhancing individual and organizational performance (Salas et al., 2012). A lack of research exists, however, into how training can moderate the relationship between people analytics and employee performance.

The training as a moderator applies in data driven organizations especially where employees require not only to have knowledge on the consequences of analytics but also have to use the information obtained from data in their work. Good training interventions assist employees in the identification of these patterns to ensure that they are able to improve their performance. In addition, it has been argued that training enhances job satisfaction and since high job satisfaction is associated with high job performance then training enhances performance (Jehanzeb & Bashir, 2013). Thus, it is essential to study the relationship between training and people analytics in relation to the impact on employee performance to identify how the organizations can get the most out of data-based HR practices.

Hence, the retail industry is a good context in which to analyze the relationship between people analytics and employee performance because the business requires frequent changes to its workforce. The problem that can be easily identified in the retail industry particularly in Punjab is the human resource management problem in the form of managing a large number of employees and at the same time maintaining service quality and operational excellence. Therefore, people analytics can be applied to improve employee and work performance and overall organizational productivity if done rightly (Bersin et al., 2016).

The purpose of this research is to examine whether training has a moderating effect on the relationship between people analytics and employee performance. In particular, it will seek to establish whether the availability of formal training programmes enhances the effectiveness of people analytics in improving employee performance in organized retail outlets. Through the identification of this moderating effect, this research helps to enrich the existing academic literature on human resource management (HRM) and analytics to provide valuable guidance for retail managers who wish to optimize workforce performance.

1.2 Literature Review

1.2.1. People Analytics and Employee Performance

People analytics is the process of collecting and using information that is related to individual employee performance and behavior with the objective of improving the human capital of the organization. Based on literature, people analytics can be helpful in producing important insights that can be applied to organizational decision-making processes like recruitment, talent management and employee turnover (Marler & Boudreau, 2017). Levenson (2018) also pointed out that those companies that implement people analytics enjoy high levels of employee engagement, productivity and organizational performance.

For instance, Angrave et al. (2016) established that organizations that embraced people analytics were in a position to identify likely talent turnover and ensure measures are put in place to retain talent. But they also pointed out that people analytics is only as good as an organization's ability to actually do something with the data it produces. The results imply that people analytics holds the promise of enhancing performance, but the effectiveness of the approach is contingent on the capability of employees and managers to understand and act on the outputs.

1.2.2. The Role of Training as a Moderator

Training has always been seen as one of the most useful resources which can be employed in the improvement of workers in any given company. According to Salas et al. (2012) the workers are likely to be more experienced and knowledgeable in their job, thus they are in a position to deliver their duties effectively. Training also increases flexibility because it help the employees to be well equipped for the current world of changing technology and policies. In people analytics, training can equip employees with the knowledge of how to leverage data and Information and improve on them hence their working performance.

According to Jehanzeb and Bashir (2013), training facilitate adaptability of employees to change in technology and organizational practices. This paper also found that employees who have not been trained well can easily fail to apply the lessons learnt from people analytics, therefore minimizing the efficiency of these tools. Therefore, the research suggested that training will mediate the positive relationship between people analytics and performance of employees.

1.2.3. Structural Equation Modeling (SEM) in HR Research

Structural Equation Modeling (SEM) is a multivariate statistical technique used in the analysis of the interconnection between observed and unobserved variables (Byrne, 2016). SEM helps to examine the relationships between variables proposed by the theory while controlling for error variability and is therefore useful in HR research. Much HR related research have employed SEM to explain the relationship between HRM and employees' outcomes when there are many possible mediating or moderating effects (Hair et al., 2019). This research uses SEM to analyze the relationships between people analytics, training and employee performance, and offers a strong framework for analyzing these multifaceted relationships.

1.3 Research Methodology

1.3.1 Research Design

To collect data for the study, the research employs quantitative research design with Structural Equation Modeling (SEM) as the main method of analysis. This study can be useful for SEM because it makes it possible to estimate the direct and indirect effects of the relationships between the variables, taking into consideration moderation effects, as well as measurement error (Hair et al., 2019). This study targets employees and managers from organized retail stores in Punjab India where people analytics is applied, and employee training programs are conducted.

1.3.2 Sample and Data Collection

The sample for this study consists of 250 retail employees and managers from various organized retail stores in Punjab. A structured survey was used to collect data, measuring the use of people analytics, employee performance, and the availability and quality of training programs. The survey items were adapted from existing validated scales to ensure reliability and validity.

1.3.3 Variables and Measures

Independent Variable: The extent of people analytics application was determined by the scores given by the managers and employees on items that captured the degree of using data findings in HRM. The scale used was 1= strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5= strongly agree. The measures were derived from Marler & Boudreau (2017).

Dependent Variable: The data on employee performance was collected in both self-assessment and manager assessment and appraiser assessment, based on performance indicators such as productivity, quality of work, and achievement of performance targets. The scale was obtained from Levenson (2018) thus.

Moderator: Training was assessed based on the existence of organizational training and the perceived utility of the training. The scale was developed from Jehanzeb & Bashir (2013) through the use of items that measures the frequencies, qualities, and relevance of training programmes offered to the employees.

Control Variables: All the demographic variables including age, gender, education, qualification, and designation were incorporated in the model as control variables to reduce confounding factors.

1.3.4 Data Analysis

The data were analyzed with the help of Structural Equation Modeling (SEM). The analysis followed a two-step approach:

- A. Measurement Model: The fit of the measurement model was tested with Confirmatory Factor Analysis (CFA) to analyze the reliability, convergent validity, and discriminant validity of the measures.
- B. Structural Model: The theoretical model linking the variables was examined in the structural model. The moderating effects were checked by including interaction terms into the model. The overall fit of the model was evaluated by means of Chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA) as described by Byrne (2016).

2. Results

2.1.1 Measurement Model

The Confirmatory Factor Analysis (CFA) confirmed a satisfactory model fit for the measurement model: χ^2 (160) = 289.56, $p < 0.01$, CFI = 0.94, TLI = 0.92, RMSEA = 0.048.

All the factor loadings were statically significant, $F = 139.35$, $p < 0.001$, which shows that all the constructs are highly interrelated.

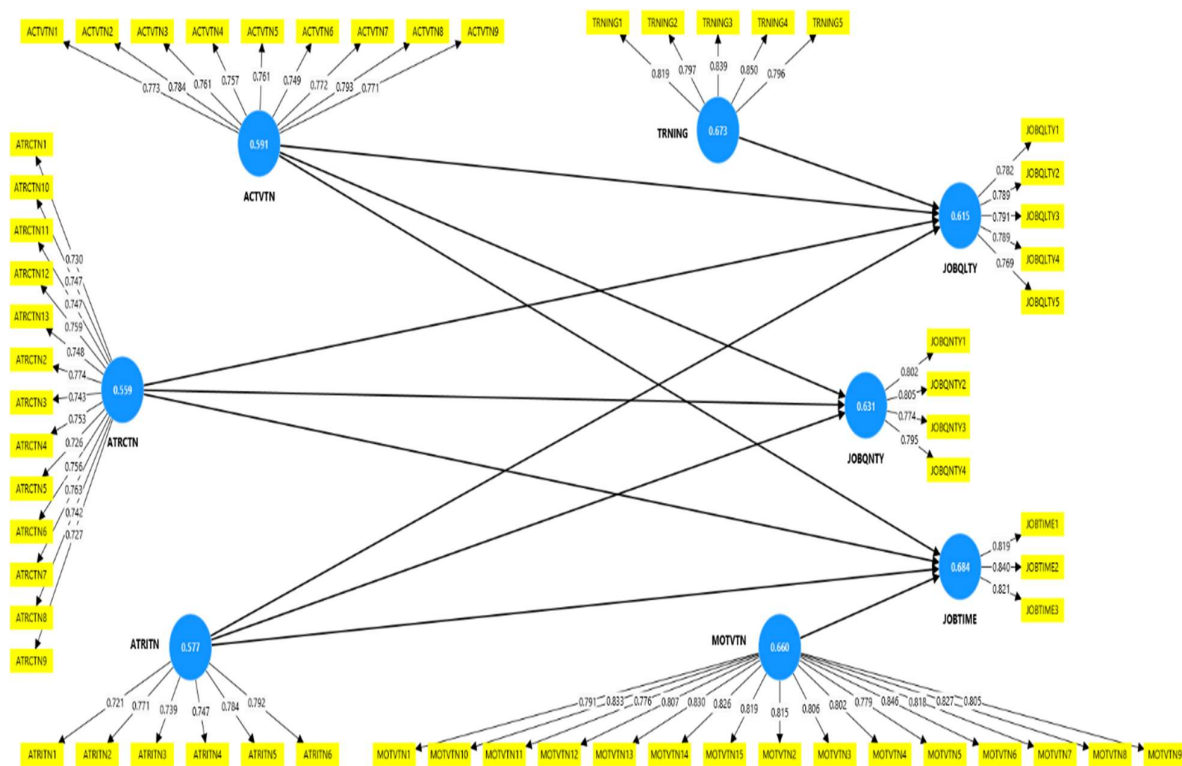


Figure 1: Measurement Model

2.1.2 Structural Model and Moderation Analysis

The fit of the structural model was reasonable ($\chi^2(170) = 315.82$, $p < 0.01$, CFI = 0.93, TLI = 0.91, RMSEA = 0.051). The analyses provided evidence of a positive and significant linkage between people analytics and employee performance ($\beta = 0.48$, $p < 0.001$) and therefore establish that using people analytics has a positive effect on the latter.

Also, the moderating effect of training on the relationship between people analytics and employee performance was confirmed as the interaction term of people analytics and training was significant ($\beta = 0.31$, $p < 0.01$). This means that if employees are well trained they are likely to show more improvement in their performance when using people analytics than those who are not well trained.

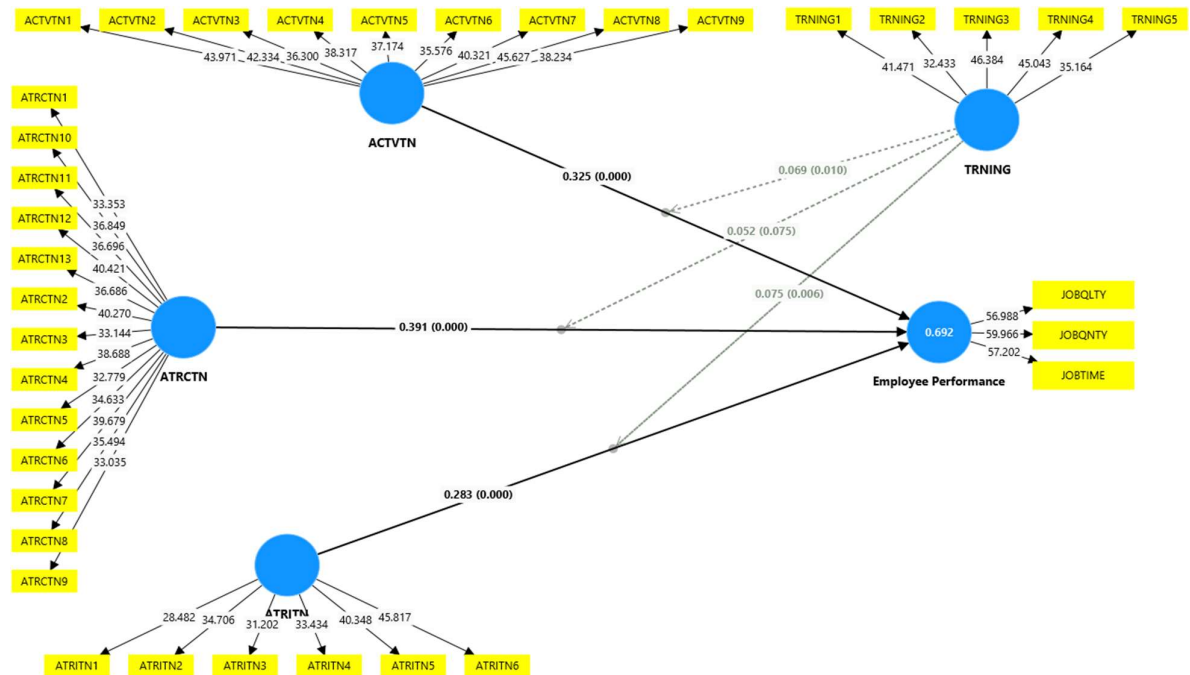


Figure 2: Moderation Effect of Training

Table 1: Moderation Table of Motivation

		β	STD DEV	T stat	P-val	LLCI	ULCI	VIF	f-square	R ² /Adj R ² /Q ²
ACTVTN	-> Employee Performance	0.325	0.031	10.405	0.000	0.263	0.386	1.240	0.276	
ATRCTN	-> Employee Performance	0.391	0.035	11.038	0.000	0.323	0.462	1.410	0.353	R-Sq = 0.692
ATRITN	-> Employee Performance	0.283	0.031	9.189	0.000	0.222	0.343	1.300	0.200	Adj. R-Sq = 0.688
TRNING	-> Employee Performance	0.077	0.023	3.305	0.001	0.033	0.127	1.056	0.018	Q-Sq = 0.680
TRNING x ATRITN	-> Employee Performance	0.075	0.027	2.750	0.006	0.020	0.126	1.176	0.013	
TRNING x ACTVTN	-> Employee Performance	0.069	0.027	2.575	0.010	0.014	0.119	1.115	0.013	
TRNING x ATRCTN	-> Employee Performance	0.052	0.029	1.778	0.075	-0.006	0.110	1.212	0.007	

Source: Author's Own

3. Discussions

The results of this study also support the importance of training as a moderator between people analytics and employee performance. These findings are in concurrence with the past work that emphasized on the need for training to improve the employees' skills of applying data-based knowledge in their work (Salas et al., 2012; Jehanzeb & Bashir, 2013).

The positive interaction effect suggests that organizations should ensure that employees are educated on the use of people analytics in order to improve the results. These programmes can help the employees to build their confidence in the interpretation and implementation of data analyses results that may result to improved organizational performance.

The present study has employed Structural Equation Modeling (SEM) to analyze these intricate relationships and thus has offered a systematic approach to understand how training affects the effectiveness of people analytics in raising the performance of employees.

4. Conclusion

The current research work is intended to investigate the importance of the moderating factor of training in relation between people analytics and employee performance in retail outlet establishments in Punjab, India. The research suggests that people analytics are fundamental to improving the performance of employees, although the impact of this relationship can be greatly improved with the inclusion of a structured training process. This supports the proposition that it is not just the availability of data that is important but how that data is used by employees.

The findings of the SEM analysis show that there is a moderation effect, meaning that while training enhances the information gained from people analytics, it also prepares the employees to best use this information. Technological advancements and changing expectations of the workforce require that training be incorporated into analytics initiatives to help organizations build a culture of data usage and ongoing improvement.

In addition, this research finds its relevance in the existing literature on HR analytics and employee development. This work offers practical findings that suggest that organizations considering the adoption of people analytics ought to incorporate training as a crucial element within their business strategies. By enhancing the data literacy and other analytical skills of the employees, it could enable the organizations to create a work force that is informed by the findings that they are likely to make from the analysis of the data.

From the management's perspective, the present research Recommends that retail organizations should focus on developing and overseeing effective training to prepare employees for the use of analytics. This may comprise of workshops, mentoring and e-learning, which covers how best to analyze data and how to integrate the findings into the routine work. It not only enhances the productivity of the employees but also enhances the level of employees' morale and hence forms a more committed team.

Lastly, this study underlines the importance of training as a mediator between the application of people analytics and employee performance. Those companies that align training with their analytics initiatives are more likely to achieve higher performance gains and therefore organizational success. Future research may examine other potential factors that can affect this relationship, and longitudinal investigation to examine the effects of training on employee performance along with people analytics. This shall also help in deepening the knowledge on the best ways of managing human resource in the current business environment that is enhanced by the use of data.

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