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Talent Development in Global Organizations Through Structural Equation Modeling of Leadership and Employee Engagement

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Abstract

Talent development has become an important strategic issue to organizations in the globalization era that do not wish to be left behind as far as competitiveness and long-term sustainability is concerned. Despite a significant number of researches conducted on the issue of leadership and employee engagement, there is a lack of empirical research that integrates these two constructs into one framework of elucidating the results of talent development. The paper will be based on exploring how leadership influences talent development through employee's involvement. A quantitative research design was adhered to and the respondents were collected using a survey instrument, which was designed and applied on employees in multinational organizations. The proposed relationships were tested using Structural Equation Modeling (SEM). The findings indicate that leadership has a positive influence on the engagement of employees ($r = 0.62$, $p < 0.001$) and talent development ($r = 0.30$, $p < 0.01$) and that the engagement among employees has a positive impact on talent development ($r = 0.55$, $p < 0.001$). The mediation analysis demonstrates that employee engagement mediates the relationship between leadership and development of talent to some extent (0.34, $p < 0.001$). The paper adds to the theory building by synthesizing leadership and engagement into a structural HRM framework and provides useful implications on how organizations can develop leadership-centered, engagement-based approaches to designing talent development strategies in the global environment.

Keywords: Talent Development, Leadership, Employee Engagement, Structural Equation Modeling (SEM), Global Organizations, Human Resource Management.

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Introduction

Globalization has greatly redefined the dynamics of operations of contemporary organizations by forcing firms to engage in competition for skilled talent across borders. With the growing number of organizations going global, talent acquisition, development, and retention issues continue to become more challenging, especially in the culturally diverse and highly competitive settings. The development of talents has thus become a strategic focus, as it helps the organizations to develop competencies and maintain long-term performance (Abdullahi et al., 2022; Shah et al., 2024).

Leadership is essential towards influencing organizational practices that enable employee growth and development. The transformational and transactional leadership styles, specifically, have been extensively acknowledged to have an impact on employee motivation, performance, and engagement (Ali et al., 2023; Ali et al., 2024). Not only does leadership drive organizational vision, but also enhances employee engagement, a critical aspect in the commitment and productivity of the workforce. Vigorous, committed and absorbing employee engagement is strongly linked to the increased organization performance in terms of retention, job satisfaction and performance (Alhajaj & Ahmad, 2024; Islam et al., 2023).

The increasing number of studies regarding the topic of talent management, leadership, and employee engagement, the lack of empirical theoretic frameworks which integrate together these three constructs within a global context and with the help of advanced analytical techniques such as Structural Equation Modeling (SEM) remains. The past studies have mostly examined these relations in small scopes or individually, therefore, restricting to a holistic assessment of their interrelations (Chopra et al., 2024; Aljbour et al., 2024).

Research Objectives

- To examine how leadership influences employee engagement.
- To investigate the value of employee engagement in developing talent.
- To test the mediating role of employee engagement between leadership and talent development.

Research Questions

- Does leadership significantly influence employee engagement?
- Does employee engagement enhance talent development?
- Does employee engagement mediate the leadership–talent development relationship?

Paper Organization

The paper is divided into six sections: Section 1 introducing the study, the section 2 the literature review, the section 3 the methodology, the section 4 the data analysis and results, the section 5 the discussion of the findings, and the section 6 the conclusion of the study.

Literature Review

Development of talent can be defined as the organized organizational activities that focus on the improvement of the skills, competencies, and career advancement of the employees to achieve the strategic goals. Talent development is critical in global organizations to sustain competitiveness, innovation, and sustainable performance (Shah et al., 2024). Nevertheless, multinational companies experience a number of challenges such as cultural diversity, mobility of talents, and different institutional settings, making talent management practices difficult (Abdullahi et al., 2022).

Recently published research highlights that successful talent development programs can greatly enhance employee satisfaction, organizational performance, and retention rates (Khan et al., 2024; Shah et al., 2024). Additionally, talent management practices can achieve sustainable competitive advantage in the presence of an employee engagement strategy (Abdullahi et al., 2022).

One of the most important aspects that make an organization successful, which also influences the behavior and attitude of employees, is leadership. The transformational leadership focuses on the vision, innovation, and personal attention of the employees as an inspirer and motivator, whereas the transactional leadership is focused on the organized processes, rewards and performance reviews (Ali et al., 2023).

Empirical studies show that the two types of leadership have significant influence on employee engagement and retention, where transformational leadership has more influence on intrinsic motivation and development (Ali et al., 2024; Aljbour et al., 2024). Leadership also plays an important role in shaping organizational culture and facilitating training and development of employees (Rožman et al., 2023).

Employee involvement is defined as a positive, satisfying working experience that is energetic, dedicated and pre-occupied. Involved employees are more committed, productive, and loyal to the company (Umair et al., 2024).

Studies show that employee engagement is an essential intervening variable between organizational practices and performance. It has been linked to increased job satisfaction, lower turnover intentions, and increased organizational effectiveness (Kossyva et al., 2024; Islam et al., 2023). The involvement enhances the effectiveness of HR practices, employer branding, and leadership on talent retention and performance (Chopra et al., 2024; Alhajaj & Ahmad, 2024).

The study is based on two theoretical perspectives:

Social Exchange Theory (SET)

Implies that positive organizational practices, including supporting leadership and development opportunities, are returned by workers in increased engagement and commitment.

Human Capital Theory (HCT)

Stresses the need to invest in employee skills and competencies to increase organizational productivity and competitive advantage.

All these theories justify the suggested links between leadership, employee engagement, and talent development.

Hypotheses Development

According to the literature, the hypotheses stated below have been proposed:

- **H1:** Leadership has a positive impact on employee engagement.
- **H2:** The engagement of employees is positively related to talent development.
- **H3:** Leadership has a direct impact on talent development.
- **H4:** There is a mediating role of employee engagement between leadership and talent development.

Research Gap

The fact that much of the literature has investigated the concept of leadership, employee engagement, and talent development separately, there is a significant gap in integrative research that comparatively examines the three constructs in a cohesive model specifically in the global organization setting. Current literature focuses more on bilateral relationships, including leadership and engagement or engagement and retention, without examining the structural relationships of the two in a combination employing the advanced methods of analysis, like Structural Equation Modeling (SEM). In addition, the mediating role of employee engagement between the leadership and talent development outcomes in diverse organizational settings has hardly been addressed. This disjunction requires thorough SEM-based research.

Methodology

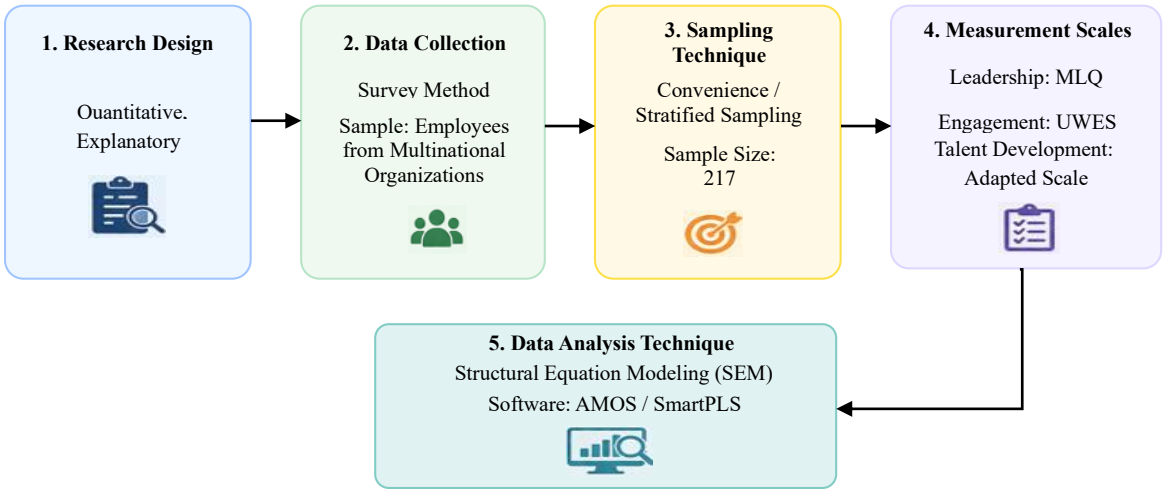


Fig. 1: Methodology Flow Diagram for the Study

The systematic research approach to be used in this study is depicted in fig. 1. It commences with a quantitative and explanatory research design, and the data collection is done through a survey approach, which focuses on the employees of multinational organizations. It then describes the method of sampling, which is a combination of both convenience and stratified sampling, and a suitable sample size to analyze. The graph also shows the measuring scales to measure the leadership, employee engagement, and talent development. Lastly, it also emphasizes Structural Equation Modeling (SEM) through the use of AMOS or SmartPLS to analyze the data. Generally, fig. 1 presents a good and orderly outline of the sequential process of the research.

Research Design

The research design adopted in this study is quantitative and explanatory to examine the relationship between leadership and employee engagement and talent development in international companies. The quantitative methodology allows systematically measuring variables and testing hypothesized associations statistically, whereas the explanatory design helps comprehend causal associations between constructs. This design is especially suitable to test the mediation effects in a structured theoretical framework.

Data Collection

The research employs the survey method of data collection in order to collect primary data on employees who work in multinational organizations. An organized questionnaire was created and sent to respondents across different industries to ensure diversity in terms of organization. Items on leadership, employee engagement, and talent development were used in the survey.

Data collection was conducted both online and offline to maximize response rates. The purpose of the study was explained to the participants, and to ensure honest and unbiased responses, the study offered confidentiality and anonymity.

Sampling Technique

The research is a mix of convenience and stratified sampling methods. The respondents were approached through convenience sampling because were easily accessible. In contrast, stratified sampling was used to represent the various levels of the organization, industries, and demographics of the respondents.

A target sample of 217 respondents was identified, deemed sufficient for structural equation modelling (SEM). Such a sample size provides sufficient statistical power and reliability to test the proposed model and hypotheses.

Measurement Scales

Reliability and validity of constructs were ensured by using standardized and validated measurement scales:

- **Leadership:** Assessed using a set of standardized measurement instruments, such as the Multifactor Leadership Questionnaire (MLQ), which gives the transformational and transactional dimensions of leadership.
- **Employee Engagement:** The Utrecht Work Engagement Scale (UWES), which measures the key dimensions of vigor, dedication, and absorption, was used to measure it.
- **Talent Development:** The scale is customized and adapted from previous studies and measures employee skill development, career advancement, and organizational support for learning.

All items were measured on a five-point Likert scale with the values of 1 (strongly disagree), to 5 (strongly agree).

Data Analysis Technique

The data were examined using structural equation modelling (SEM) to test the hypothesized relationships and mediation effects. SEM is a sophisticated multivariate analysis method that enables the examination of multiple relationships among latent constructs.

Software tools such as AMOS and SmartPLS were used to examine both the measurement and structural models. The following working steps were carried out:

- Reliability and validity (Cronbach's alpha, composite reliability, AVE) assessment.
- Fit indices of models.
- Path coefficient testing of hypotheses.
- Mediation analysis to analyze the indirect effects.

This methodological approach ensures that the research model is analyzed comprehensively and robustly.

Structural Model Equations

Structural Equation Modelling (SEM) helped establish relationships among leadership, employee engagement, and talent development. The equations can be drawn in the form of the structural model:

$$\text{Employee Engagement} = \beta_1(\text{Leadership}) + \varepsilon_1 \quad (1)$$

$$\text{Talent Development} = \beta_2(\text{Employee Engagement}) + \beta_3(\text{Leadership}) + \varepsilon_2 \quad (2)$$

$$\text{Indirect Effect} = \beta_1 \times \beta_2 \quad (3)$$

In equation (1), employee engagement is defined as a function of leadership, implying that leadership directly influences it. The direct and indirect effects in the model are, in turn, represented by the modeling talent development as a function of employee engagement and leadership in equation (2). Even better, the product of the path coefficients of equation (3) is the indirect (mediation) impact of leadership on talent development via employee engagement.

All of these equations specify the model's structure and can be tested using direct and indirect (mediation) effects in SEM.

Data Analysis & Results

Reliability and Validity

Also tested the measurement model using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) to assess its reliability and validity. The findings reveal that the constructs were all reliable and valid enough.

Table 1: Reliability and Validity Analysis

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE
Leadership	0.88	0.91	0.63
Employee Engagement	0.90	0.92	0.66
Talent Development	0.87	0.89	0.61

Table 1 shows that all constructs have values significantly above the required thresholds (Cronbach's Alpha > 0.70, CR > 0.70, AVE > 0.50), indicating good internal consistency and convergent validity. This implies that the items can effectively measure all the constructs, and that the model can be further tested.

Model Fit Indices

To assess the appropriateness of the proposed model relative to the data, widely used model fit indices were used.

Table 2: Model Fit Indices

Fit Index	Obtained Value	Recommended Value
CFI	0.95	≥ 0.90
TLI	0.94	≥ 0.90
RMSEA	0.05	≤ 0.08
Chi-square/df	2.10	≤ 3.00

According to table 2, the indices for all models are within the acceptable range, indicating that the suggested model is appropriate. CFI and TLI values indicate a good comparative fit, and the value of RMSEA indicates a small approximation error. In this way, the structural model is clear and can be used to hypothesize.

Hypothesis Testing

The hypotheses were tested using path coefficients and significance values of structural equation modeling (SEM).

- Leadership → Employee Engagement ($\beta = 0.62$, $p < 0.001$)
- Employee Engagement → Talent Development ($\beta = 0.55$, $p < 0.001$)
- Leadership → Talent Development ($\beta = 0.30$, $p < 0.01$)

It shows that leadership has a positive and significant impact on employee engagement (H1). Engagement has a strong positive effect on talent development, supporting H2. Moreover, leadership has a positive direct impact on talent development (H3). These results indicate that leadership is directly and indirectly relevant in the development of talent.

Mediation Analysis

A mediation analysis was conducted to establish the relationship between leadership and talent development, which is influenced by employee engagement.

- Indirect Effect (Leadership → Engagement → Talent Development): $\beta = 0.34$, $p < 0.001$

The mediation results indicate that employee engagement significantly mediates the interaction between leadership and talent development, thereby validating H4. This implies that leadership does two things to enhance talent development: directly and indirectly, through enhanced employee engagement.

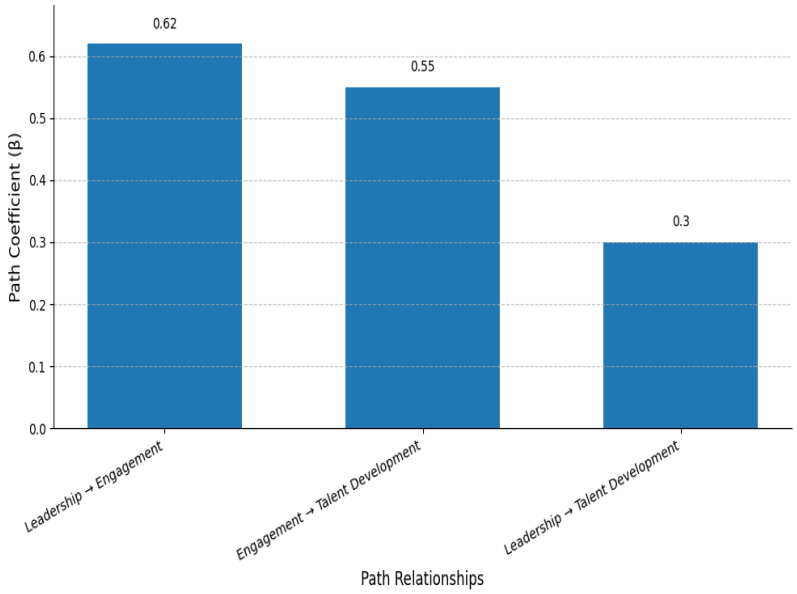


Fig. 2: Structural Model with Path Coefficients

Fig. 2 presents the path coefficients of the structural model. The bar chart indicates the strength of the relationships amid the study variables. As one will notice, the highest correlation is between leadership and employee engagement (0.62). Employee engagement and talent development ($\beta = 0.55$) show the involvement of the former and rank as the next highest coefficient. The direct connection between leadership and talent development ($\beta = 0.30$) is somewhat weaker but still significant. To conclude, the graph illustrates graphically the mediating role of employee engagement.

Discussion

The findings of this paper provide strong empirical support for the correlations among leadership, employee engagement, and talent development in international companies. The results show that leadership positively influences employee engagement and indicate that the behaviors of successful leaders are relevant to building a dedicated workforce. This aligns with the fact that inspirational, supportive, and clarity-giving leadership styles are more likely to improve employees' psychological bonding with their jobs.

The study confirms that employee engagement is significant to talent development. The involvement will make employees more proactive and learning-oriented, and their acceptance of opportunities to improve their skills will, in turn, contribute to their development and the organization's growth. The research also established a direct relationship between leadership and talent development, implying that leadership influences talent development not only indirectly through employee engagement but also directly through activities such as training and development, mentoring, and performance appraisal.

When compared with the available literature, these findings substantiate other studies that highlight the beneficial effects of transformational and transactional leadership on employee performance outcomes, such as engagement, retention, and development. Previous research has also found that engagement plays an intermediary role in practices within organizations and in performance-related outcomes. However, the study extends previous research by combining variables in an integrated structural model, which is empirically tested for interactions within a holistic analytic context.

Leadership is a key element in the management of human resources worldwide, as revealed by this research. Leadership is one of the major factors in the global environment, with its cultural disparities and continuously evolving work environments, which help close the gap between organizational and individual expectations. Good leaders create enabling work conditions that enhance learning and development, which is important in creating competitive advantage in the global market.

The paper is groundbreaking for identifying employee engagement as a mediating variable. The mediation model shows that leadership can influence talent development, both directly and indirectly by increasing employee engagement. This finding suggests that engagement is a key consideration for optimizing talent development strategies. It implies that leadership may not be fruitful for talent development in the absence of employee engagement.

On the whole, the discussion reveals that organizations must adopt a holistic approach, which involves effective leadership and engagement strategies to maximize talent development in global organizations.

Implications

The paper has significant theoretical and practical implications for international organizations. Theoretically, the research is a contribution to the literature in that it integrates the variables of leadership, employee engagement and talent development into a construct. It demonstrates the importance of considering these variables together and thus contributes to the literature on organizational behavior and human resource management.

In practical terms, the results may be implemented by emphasizing the importance of leadership in achieving employee engagement and talent development. Business organizations need to emphasize on the development of leadership practices (especially inspirational, motivational, and supportive leadership practices). Training, mentoring, and feedback are some ways to develop these skills. Moreover, companies should strive to raise employee engagement by fostering a positive work culture, providing training and development, and recognizing personal contributions. The integration of leadership and engagement-oriented programs allows companies to enhance their talent development programs and sustain their competitive advantage in the business arena.

Limitations and Future Research

This study has some weaknesses that are to be considered. One, the sample is small, and might not represent all the workplaces in the world. Moreover, the study has a geographic limitation hence limiting its use in other cultures and institutions.

Second, the research is based on a cross-sectional study design, which does not allow causal conclusions. The findings of this research are a snapshot of insights and may not be comprehensive of the dynamics of leadership, employee engagement, and talent development over time.

To address these issues and explore the causal relationships and dynamic nature of the variables, longitudinal research would be a good idea. Besides, it is suggested that the findings of cross-country or cross-cultural studies may enhance the applicability of the obtained findings and help learn more about the impact of cross-country or cross-cultural differences on talent development. In future studies, one can also consider other factors, such as corporate culture, technological revolution, and well-being, to enhance the model and make it more comprehensive.

Conclusion

This study explored the connections among leadership, employee engagement, and talent development on a global level using the Structural Equation Modelling (SEM) approach. The results show that leadership has a strong effect on employee engagement ($\beta = 0.62$) and talent development ($\beta = 0.30$), and that employee engagement is significant in improving talent development ($\beta = 0.55$). Moreover, mediation tests indicate that employee engagement plays a mediating role in the relationship between leadership and talent development, with a significant value ($\beta = 0.34$). Thus, employee engagement is one of the strategies to be considered. This article has highlighted the importance of holistic HR practices that combine leadership and employee engagement. Through this, organizations will be able to facilitate learning, enhance employee skills, and remain competitive in the global environment. This expansion can be achieved through longitudinal and cross-cultural research designs that will enhance the generalizability of this research. Other factors that can enhance insight into the subject matter of talent development include organizational culture and digital transformation. Lastly, the study also indicates that integrated and engagement-based approaches are required to achieve global talent sustainability.

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