

The Impact of Employee Development Programs on Employee Productivity in the Saudi Education Sector through Employee Engagement

Ahmad Ghazi M Alshammari¹, Dhakir Abbas Ali²

¹Faculty of Business and Accountancy, Lincoln University
College, Malaysia

²Head of Research Unit, Lincoln University College, Malaysia

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Abstract:

This study examines the impact of employee development programs on employee productivity in the Saudi education sector, focusing on the mediating role of employee engagement. Grounded in Human Capital Theory and Social Exchange Theory, the research explores how continuous professional learning and engagement-oriented practices contribute to improved workforce performance and institutional success. A quantitative approach was adopted, collecting data from 60 participants across various educational institutions in Saudi Arabia. The results revealed strong reliability and validity across all study variables, confirming the consistency of the measurement instruments. The findings showed significant positive relationships among employee development programs, engagement, and productivity, indicating that engagement serves as a key mediator linking developmental initiatives to enhanced performance outcomes. These insights underscore the importance of aligning employee development strategies with engagement-driven management practices to achieve sustainable organizational growth. The study concludes that fostering a culture of learning and engagement within Saudi educational institutions is crucial for improving employee productivity and advancing the broader objectives of national transformation under Vision 2030.

Keywords: Employee Development Programs; Employee Engagement; Employee Productivity; Vision 2030; Saudi Education Sector.

1. Introduction

Employee development programs have become a central component of human resource strategies designed to enhance employee productivity and organizational performance across all sectors, including education. In today's knowledge-driven economy, the success of educational institutions depends largely on how effectively they cultivate and retain competent staff through systematic professional development and engagement initiatives. According to Bilderback and Miller (2023), structured employee development programs are not merely training activities but strategic investments that strengthen employee capabilities, motivation, and long-term performance outcomes. Within the Saudi Arabian context, employee development is a critical pillar of Vision 2030, which emphasizes capacity building, innovation, and educational quality improvement. Othayman (2022) highlighted that universities and schools in Saudi Arabia are increasingly recognizing the need to enhance their human capital through continuous learning and professional advancement initiatives that align with national transformation goals.

The education sector in Saudi Arabia faces unique challenges related to workforce productivity, motivation, and engagement. Mustafa and Lleshi (2024) argued that continuous learning and development investments positively affect both employee productivity and institutional performance, particularly when programs are aligned with employee needs and organizational objectives. Similarly, Permatasari and Tandiyuk (2023) noted that teacher and staff development in educational organizations directly influences instructional quality, student learning outcomes, and organizational effectiveness. Despite these advantages, gaps persist in how development programs translate into measurable productivity improvements, often due to limited employee engagement and organizational support mechanisms. Engagement serves as a key psychological and behavioral link between training interventions and performance outcomes, motivating employees to apply new knowledge and skills in their daily tasks (Wardiansyah, Indrawati, & Kurniawati, 2024; Ateeq, 2023).

Employee engagement plays a crucial mediating role in transforming the benefits of training and development into improved productivity. Naqshbandi, Farhana Said, and Hisa (2024) found that engagement fosters stronger organizational commitment and cultural alignment, leading to higher performance levels. Likewise, Bibi, Tufail, and Shah (2024) demonstrated that engagement enhances the impact of

knowledge-sharing and training initiatives in higher education institutions. Studies by Bhakuni and Saxena (2023) and Mohammed, Mohammed, and Gana (2022) emphasized that effective development programs not only build competence but also foster emotional connection and satisfaction among employees, which in turn elevate productivity and retention. Within the framework of Social Exchange Theory, when organizations invest in the development and well-being of their employees, individuals reciprocate through higher engagement, commitment, and performance (Memon, Ghani, & Khalid, 2020).

Given these considerations, the present study examines how employee development programs influence employee productivity in the Saudi education sector, focusing on the mediating role of employee engagement. The research aims to provide empirical evidence on how strategic human resource development initiatives can contribute to enhanced organizational outcomes within Vision 2030's transformative agenda. By investigating this relationship, the study contributes to both theoretical understanding and practical policy implications for educational leadership and human resource management in Saudi Arabia, providing actionable insights for improving institutional productivity through targeted engagement-driven development programs.

2. Literature Review

2.1 Theoretical Discussion

The relationship between employee development programs, employee engagement, and productivity can be theoretically explained through the integration of Social Exchange Theory (SET) and Human Capital Theory (HCT), both of which provide a comprehensive lens for understanding the behavioral and economic mechanisms that drive workforce performance. Social Exchange Theory postulates that relationships between employers and employees are built upon reciprocal exchanges of resources, trust, and obligation. When organizations invest in employees through structured development programs, workers perceive such investments as a form of organizational support, which in turn fosters stronger engagement, loyalty, and commitment (Memon, Ghani, & Khalid, 2020). This reciprocity mechanism creates a cycle in which employees respond to developmental opportunities by demonstrating higher levels of motivation, enthusiasm, and productivity. Ateeq (2023) confirmed that engagement functions as a psychological contract between employees and their organizations, translating supportive practices like training and

mentorship into improved performance and innovation. Similarly, Nagpal (2022) emphasized that engagement derived from positive exchange relationships leads to enhanced organizational commitment and productivity outcomes.

Human Capital Theory complements this framework by explaining the instrumental role of learning and skill acquisition in improving employee and organizational performance. The theory, rooted in the work of economists such as Becker, views education, training, and development as investments in human capital that yield measurable returns in productivity and efficiency. Mustafa and Lleshi (2024) highlighted that organizations that prioritize lifelong learning and development not only enhance employee competencies but also increase adaptability and problem-solving capacity, which are critical in achieving sustainable productivity gains. Priatna (2020) similarly demonstrated that targeted training and evaluation programs for civil servants in education sectors directly improved efficiency and output, validating the economic logic of human capital investment. In the Saudi educational context, this theoretical perspective aligns with Vision 2030, which identifies human capital enhancement as a foundation for achieving national development goals (Alenezi, 2022).

When combined, Social Exchange Theory and Human Capital Theory offer a multidimensional understanding of how employee development influences productivity through engagement. While HCT focuses on the enhancement of individual capabilities and skills as economic assets, SET explains the motivational and relational dynamics that drive employees to apply these capabilities effectively within their organizations. Dachner, Ellingson, Noe, and Saxton (2021) argued that modern employee development frameworks must integrate both dimensions skill enhancement and psychological engagement to fully realize their impact. Kaufman, Barry, Wilkinson, and Gomez (2020) further noted that the future of employee engagement depends on redefining development as a process that satisfies both cognitive and emotional dimensions of work. This integration is particularly relevant for educational institutions, where engagement fosters a culture of learning and innovation that amplifies the benefits of development programs (Permatasari & Tandiyuk, 2023).

In the Saudi Arabian education sector, where institutions are transitioning toward performance-driven models, these theories

collectively highlight the importance of aligning employee development initiatives with engagement-focused strategies. As organizations invest in skill-building, mentorship, and professional growth opportunities, employees reciprocate with stronger commitment and higher productivity validating the dual theoretical premise of capability development and relational exchange. Thus, Social Exchange Theory and Human Capital Theory together form the conceptual foundation of this study, providing a theoretical explanation for how employee development programs enhance employee productivity through the mediating role of employee engagement.

2.2 Hypotheses Development

Based on the findings of previous research and the theoretical perspectives discussed earlier, this section formulates the hypotheses that guide the empirical testing of the proposed model. Prior studies have demonstrated that employee development programs play a crucial role in enhancing workforce engagement, motivation, and productivity (Bilderback & Miller, 2023; Mustafa & Lleshi, 2024). Within the context of the Saudi education sector, such programs are central to achieving Vision 2030's emphasis on human capital excellence and institutional efficiency (Alenezi, 2022). Drawing upon Social Exchange Theory and Human Capital Theory, the following hypotheses are developed to examine the direct and mediating relationships among employee development programs, employee engagement, and employee productivity.

Employee development programs are widely recognized as strategic organizational practices that aim to enhance employee competence, satisfaction, and performance. These programs, encompassing training, mentoring, and continuous learning initiatives, foster a sense of value and commitment among employees, motivating them to contribute effectively to organizational goals (Bilderback & Miller, 2023). In educational institutions, development programs are particularly significant as they enhance teaching quality, administrative efficiency, and the overall institutional culture of excellence (Permatasari & Tandiyuk, 2023). According to Mustafa and Lleshi (2024), organizations that prioritize lifelong learning and skill development gain a competitive advantage, as employees become more adaptable, innovative, and productive. Within the Saudi Arabian context, Othayman (2022) emphasized that investment in staff development is integral to achieving

Vision 2030 objectives, which focus on educational transformation and human capital advancement. Therefore, employee development initiatives are not only mechanisms for professional improvement but also essential catalysts for productivity and organizational performance.

Scholars have established a strong relationship between employee development and engagement, suggesting that engagement functions as the motivational and emotional link through which development translates into improved performance (Ateeq, 2023). Social Exchange Theory provides a useful framework for understanding this relationship, positing that when employees perceive organizational investment in their development, they reciprocate with higher engagement and loyalty (Memon, Ghani, & Khalid, 2020). Employees who feel supported through structured training and professional development are more likely to experience a sense of belonging and commitment, which encourages them to invest their energy and creativity into their work. Bhakuni and Saxena (2023) confirmed that training and development activities build enthusiasm and strengthen employees' connection to organizational objectives, while Bibi, Tufail, and Shah (2024) found that knowledge-sharing and engagement significantly enhance performance in higher education institutions. In educational settings, engagement becomes even more critical, as motivated and emotionally invested employees are key to improving learning outcomes and institutional performance. Thus, employee development programs are expected to have a significant positive effect on employee engagement.

H1: Employee development programs have a significant positive effect on employee engagement.

Employee development also directly influences productivity by improving the technical skills, knowledge, and efficiency of employees. Human Capital Theory explains that investment in employee learning and training enhances individual capabilities, which ultimately contribute to organizational success (Mustafa & Lleshi, 2024). As Priatna (2020) demonstrated, professional training programs for civil servants in education significantly improved both task performance and institutional efficiency. Similarly, Mohammed, Mohammed, and Gana (2022) argued that continuous training strengthens work quality and adaptability in dynamic organizational environments. In higher education institutions, development programs play a vital role in fostering innovation,

pedagogical improvement, and administrative excellence (Permatasari & Tandiayuk, 2023). Dachner, Ellingson, Noe, and Saxton (2021) emphasized that modern employee development must be integrated with digital transformation and continuous learning frameworks to sustain workforce productivity. Within the Saudi educational context, development efforts aligned with Vision 2030's objectives are crucial for equipping educators and staff with the competencies required to achieve institutional excellence (Alenezi, 2022). Therefore, it is reasonable to expect that employee development initiatives have a direct and significant impact on employee productivity.

H2: Employee development programs have a significant positive effect on employee productivity.

Although employee development can directly enhance productivity, many scholars argue that this effect is often mediated by engagement, which serves as the motivational and psychological mechanism connecting development efforts to performance outcomes. Ateeq (2023) found that engagement mediates the impact of organizational practices on performance, as employees who feel emotionally connected to their work demonstrate greater focus, resilience, and effort. Similarly, Arwab, Adil, Nasir, and Ali (2023) reported that engagement bridges the gap between training and performance, transforming learning experiences into tangible outcomes. According to Wardiansyah, Indrawati, and Kurniawati (2024), engaged employees apply their newly acquired knowledge more effectively, leading to higher productivity levels. From a theoretical standpoint, Human Capital Theory suggests that while development improves employee capabilities, the benefits of these capabilities are fully realized only when employees are engaged and motivated to apply them (Mustafa & Lleshi, 2024). Likewise, Social Exchange Theory explains that engagement arises as a form of reciprocal behavior when employees recognize that their organization values and invests in their growth (Memon et al., 2020).

Naqshbandi, Farhana Said, and Hisa (2024) found that engagement positively influences organizational effectiveness by encouraging collaboration and proactive work behaviors, while Ahmed (2024) demonstrated that engaged employees amplify the positive effects of human resource management practices on performance outcomes. Within the educational sector, engaged staff not only improve their

personal productivity but also contribute to collective institutional success by fostering teamwork, innovation, and knowledge sharing (Permatasari & Tandiyuk, 2023). In the Saudi context, where educational institutions are striving to meet Vision 2030's targets for human capital development, engagement plays an essential mediating role that links training investments with measurable performance gains. Al-Hajjoui and Ali (2025) highlighted that learning agility and engagement are key determinants of how effectively development initiatives contribute to workforce performance. Thus, the mediating role of employee engagement is critical in understanding how development programs lead to enhanced productivity within the Saudi education system.

H3: Employee engagement mediates the relationship between employee development programs and employee productivity.

In conclusion, the hypothesized model suggests that employee development positively affects both engagement and productivity, and that engagement serves as a bridge connecting developmental efforts with performance outcomes. These hypotheses are grounded in Social Exchange Theory and Human Capital Theory, which together provide a multidimensional explanation of how organizational investments in human capital result in greater productivity through enhanced engagement. The following empirical analysis tests these hypotheses within the context of Saudi Arabia's education sector, where effective development and engagement strategies are fundamental to achieving sustainable institutional performance and alignment with national transformation goals under Vision 2030.

3. Methodology

This study adopted a quantitative, descriptive–analytical research design to examine the impact of employee development programs on employee productivity in the Saudi education sector, with employee engagement serving as a mediating variable. This design was chosen because it allows for objective testing of hypothesized relationships using statistical evidence, enabling a systematic understanding of how employee development initiatives influence performance outcomes. The quantitative approach has been widely applied in organizational and educational studies to measure behavioral constructs and establish

empirical links among variables (Bilderback & Miller, 2023; Dachner et al., 2021).

The research targeted employees in Saudi public schools, including teachers and administrative staff, who are directly involved in institutional development initiatives and contribute to educational performance outcomes. The study sample consisted of 60 participants selected through purposive sampling to ensure representation from different educational levels and administrative roles. The research was conducted between February 2020 and February 2021 across various educational regions in Saudi Arabia to capture a comprehensive view of employee development and engagement practices. Three primary constructs were measured: employee development programs, employee engagement, and employee productivity. Employee development programs were assessed through two main dimensions development planning and development management following established frameworks in human resource development research. Employee engagement was measured using three dimensions emotional, cognitive, and social participation reflecting employees' overall psychological and behavioral connection to their work. Employee productivity was assessed across five dimensions: flexibility, timeliness, quality, efficiency, and effectiveness. All items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), enabling quantitative analysis of participant responses.

Data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique through SmartPLS software. This analytical method was chosen for its ability to simultaneously assess direct, indirect, and mediating relationships among latent variables, even with relatively small sample sizes. It has been widely applied in similar empirical studies for testing complex models involving behavioral and organizational factors (Afthanorhan, Awang, & Aimran, 2020). The analysis included testing the measurement model for reliability and validity using Cronbach's alpha, composite reliability, and the Fornell-Larcker criterion to confirm discriminant validity. Ethical considerations were carefully observed throughout the study. Participation was voluntary, and respondents were informed about the purpose of the research and their right to withdraw at any time. Confidentiality and anonymity were ensured, and all collected data were used exclusively for academic purposes. These procedures align with established research

ethics standards, ensuring transparency, respect, and trust in data collection and reporting (Saunders et al., 2019).

4. Findings

The findings of this study present the statistical results obtained from the analysis of the relationships among employee development programs, employee engagement, and employee productivity in the Saudi education sector. The analysis followed a structured sequence beginning with the evaluation of measurement reliability and validity, followed by descriptive and correlational analyses. Reliability and validity testing ensured the internal consistency of the measurement instruments, confirming that all constructs used in the study were psychometrically sound and suitable for further statistical analysis.

As illustrated in Table 1, the results of the reliability and validity analysis confirmed that all study constructs met acceptable statistical standards. The Cronbach's alpha values ranged from 0.794 to 0.836, demonstrating high internal consistency among the measurement items. According to Afthanorhan, Awang, and Aimran (2020), values above 0.70 indicate satisfactory reliability in social science research. The validity coefficients ranged from 0.891 to 0.914, reflecting strong construct validity and confirming that each variable accurately represented its underlying concept. The highest reliability was observed for employee engagement ($\alpha = 0.836$), followed by employee productivity ($\alpha = 0.833$) and employee development programs ($\alpha = 0.794$). These findings indicate that the research instrument effectively captured participants' perceptions across the three key dimensions of the study. Consistent with previous empirical studies, the results affirm that the questionnaire used in this research was both psychometrically sound and theoretically grounded, ensuring credibility and robustness in subsequent statistical analyses.

Table 1. Reliability and Validity Coefficients for Study Variables

Variable	No. of Items	Reliability Coefficient	Validity Coefficient
Employee Development Programs	14	0.794	0.891
Employee Productivity	16	0.833	0.913
Employee Engagement	12	0.836	0.914

As illustrated in Table 2, the descriptive statistics summarize the central tendencies and variability of the study variables: employee development

programs, employee engagement, and employee productivity. The results show that all mean values were relatively high, reflecting favorable perceptions among respondents regarding development initiatives, engagement levels, and productivity outcomes. The mean score for employee development programs was 94.65 with a standard deviation of 8.700, indicating consistent agreement among participants on the effectiveness and presence of professional development practices in their institutions. The employee productivity variable recorded the highest mean value (104.55, SD = 11.790), suggesting that respondents perceived strong performance outcomes linked to their roles and institutional practices. Similarly, employee engagement displayed a high mean of 94.75 with a standard deviation of 11.711, implying that most participants were emotionally and cognitively committed to their work.

Table 2. Descriptive Statistics

Variable	Mean (M)	Standard Deviation (SD)	N
Employee Development Programs	94.650	8.700	60
Employee Productivity	104.550	11.790	60
Employee Engagement	94.750	11.711	60

As shown in Table 3, the correlation matrix presents the relationships among the three main study variables: employee development programs, employee engagement, and employee productivity. The results reveal that all correlation coefficients are positive and statistically significant at the 0.01 level (2-tailed), confirming strong and consistent relationships among the constructs. The correlation between employee development programs and employee productivity was $r = 0.453$, indicating a moderate but meaningful association, suggesting that increased participation in development initiatives enhances employees' performance effectiveness. The relationship between employee development programs and employee engagement was also significant ($r = 0.511$), reflecting that training and professional growth opportunities foster emotional and cognitive commitment to organizational goals. Moreover, the strongest correlation was found between employee engagement and employee productivity ($r = 0.672$), implying that engagement plays a critical role in translating development efforts into higher productivity levels.

Table 3. Correlation Matrix of Study Variables

Variables	Employee Development Programs	Employee Productivity	Employee Engagement
Employee Development Programs	1.000		
Employee Productivity	0.453**	1.000	
Employee Engagement	0.511**	0.672**	1.000

N = 60; Correlation is significant at the 0.01 level (2-tailed).

5. Discussion

The findings of this study provide valuable insights into the relationships among employee development programs, employee engagement, and employee productivity within the Saudi education sector. The results confirmed that all three variables were positively and significantly related, reinforcing the theoretical assumptions drawn from Social Exchange Theory (SET) and Human Capital Theory (HCT). These findings demonstrate that employee development initiatives serve as powerful mechanisms to enhance both engagement and productivity when effectively implemented in educational institutions. The high reliability and validity coefficients observed in the measurement model indicate that the constructs were consistently perceived by participants, suggesting that teachers and administrative staff recognized the importance of continuous learning and professional growth in shaping their engagement and performance. This aligns with previous studies emphasizing that development programs foster workforce motivation, creativity, and organizational commitment (Bilderback & Miller, 2023; Dachner, Ellingson, Noe, & Saxton, 2021).

The significant relationship between employee development programs and employee engagement supports the argument that investment in professional growth leads to stronger emotional and cognitive attachment to work. As Othayman (2022) explained, professional development opportunities in Saudi educational institutions increase employees' sense of purpose, alignment with organizational objectives, and readiness for transformation under Vision 2030. Likewise, Bhakuni and Saxena (2023) and Bibi, Tufail, and Shah (2024) demonstrated that effective training programs cultivate enthusiasm and involvement, motivating employees to contribute to institutional success. The positive association found in this study reflects the reciprocal nature of organizational support, as

posited by Social Exchange Theory: when employees perceive that their organizations invest in their growth, they reciprocate through higher engagement, trust, and performance (Memon, Ghani, & Khalid, 2020). Thus, engagement functions as both a psychological state and behavioral outcome of developmental investment, reinforcing the sustainability of human capital within the education sector.

Furthermore, the direct and significant link between employee development programs and employee productivity highlights the practical importance of structured professional learning in enhancing performance outcomes. Consistent with Human Capital Theory, which views training as an investment that improves workforce capability and efficiency, this study found that employees who participated in development programs demonstrated higher levels of productivity. Mustafa and Lleshi (2024) affirmed that organizations emphasizing lifelong learning and employee growth achieve superior operational performance, while Mohammed, Mohammed, and Gana (2022) noted that professional training enables employees to adapt to evolving institutional needs. In the education sector, these outcomes translate into enhanced teaching quality, improved student outcomes, and more efficient administrative processes (Permatasari & Tandiayuk, 2023). The findings also correspond with Dachner et al. (2021), who asserted that modern employee development should integrate digital learning, mentorship, and performance-focused strategies to ensure long-term institutional success.

The results further revealed a strong correlation between employee engagement and productivity, supporting the mediating role of engagement in translating developmental initiatives into measurable performance gains. This finding is consistent with earlier studies by Ateeq (2023) and Arwab, Adil, Nasir, and Ali (2023), which demonstrated that engagement transforms training outcomes into behavioral improvements by fostering intrinsic motivation and job satisfaction. Similarly, Naqshbandi, Farhana Said, and Hisa (2024) found that engaged employees exhibit higher efficiency, creativity, and problem-solving abilities, all of which contribute to greater organizational effectiveness. In educational settings, engagement enhances not only individual performance but also institutional culture, promoting collaboration and innovation among educators and administrators (Permatasari & Tandiayuk, 2023).

From a contextual perspective, the findings hold particular relevance for Saudi Arabia's Vision 2030 framework, which emphasizes human capital development and institutional excellence. As Alenezi (2022) observed, the success of this national transformation depends on leadership readiness, workforce competence, and engagement-driven reforms within the education system. The present results suggest that strengthening professional development programs and fostering engagement can significantly contribute to achieving these objectives. By linking development and engagement strategies, educational institutions can create an environment in which employees feel valued, motivated, and empowered to contribute to organizational goals.

Overall, the study contributes to the growing body of knowledge on workforce development and engagement by confirming that employee engagement serves as a key mediating factor between professional development and productivity. It reinforces the notion that investing in people yields measurable returns in organizational performance, consistent with Human Capital Theory (Mustafa & Lleshi, 2024). The findings also validate the principles of Social Exchange Theory by demonstrating that employees reciprocate organizational investment with increased dedication and effort (Memon et al., 2020). Therefore, for educational leaders and policymakers, these results underscore the importance of integrating structured development programs with engagement-focused management practices. Doing so will not only enhance employee productivity but also sustain institutional performance and competitiveness within the framework of Saudi Arabia's long-term educational and economic transformation.

6. Conclusion

This study examined the impact of employee development programs on employee productivity in the Saudi education sector, highlighting the mediating role of employee engagement. The results demonstrated that development initiatives, such as training, mentorship, and continuous learning, significantly enhance both engagement and productivity, confirming the assumptions of Human Capital Theory and Social Exchange Theory. High reliability and validity coefficients indicated that employees strongly value professional development as a means of skill enhancement and performance improvement. Moreover, the significant correlations between development programs, engagement, and productivity emphasize that engagement acts as a vital psychological

bridge linking training efforts to tangible performance outcomes. Therefore, it is concluded that cultivating a culture of learning and engagement within Saudi educational institutions not only improves employee productivity but also advances the broader national goal of building a competitive, knowledge-based economy.

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