

Implication of Training on Employee Productivity

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Abstract

Training is widely recognized as a strategic driver for enhancing employee competencies and improving organizational efficiency. However, in developing economies countries such as the Kurdistan Region in Iraq, training practices are still inconsistent. This results in performance gaps that affect productivity and institutional growth. This study examines the impact of training on employee productivity in the Kurdistan Technical Institute (KTI). A quantitative research design was employed with a structured questionnaire distributed to 152 employees. A total of 72 respondents answered this questionnaire. Descriptive statistics and Pearson correlation analysis were conducted using SPSS. Findings reveal a significant and positive relationship between training and employee productivity, demonstrating that well-designed training programs enhance work quality, task efficiency, and employee capability. The study contributes empirical evidence on training effectiveness in the Kurdistan higher education sector and provides practical recommendations for strengthening human capital development. Limitations and directions for future research are also discussed.

Keywords: Training, Employee Productivity, Human Capital Development, Kurdistan, Organizational Performance

Introduction

Organizations are increasingly confronted with rapid technological transformation, heightened market competition, and evolving workforce expectations. As a result, the development of employee competencies through structured training has become indispensable. Training represents one of the most significant investments an organization can make to ensure continuous improvement of employee performance, organizational competitiveness, and overall productivity (Goldstein & Ford, 2002).

In many developing regions, including the Kurdistan Region of Iraq, training practices are still emerging. Many organizations, particularly semi-public or academic institutions, face difficulty in designing structured training programs, allocating budgets, or integrating learning strategies into long-term performance goals. These institutional gaps often result in underperformance, skill mismatches, inefficiency, and resistance to change.

Employee productivity remains a critical determinant of institutional effectiveness. However, productivity is often hindered when employees lack the necessary skills, knowledge, and competencies to meet contemporary job demands. Prior research indicates that well-designed training programs are essential for bridging performance gaps and equipping employees for evolving organizational needs (Stanca, 2008; Vanormelingen, 2009). However, in the Kurdistan region, many organizations including academic institutions do not consistently implement structured training programs. As a result, employees may not remain updated with emerging technologies, pedagogical methods, or administrative processes.

The Kurdistan Technical Institute (KTI), a key academic institution in the region, provides an appropriate context for examining the role of training in enhancing employee productivity. Despite its strategic role in education, the institute, like many others, faces challenges in upgrading staff competencies due to limited training opportunities and inconsistent capacity development programs. This study investigates the extent to which training influences employee productivity in KTI.

Literature Review

Training is defined as a systematic process aimed at developing knowledge, skills, and behavioral competencies required for effective job performance (Robbins & Decenzo, 1998). Goldstein and Ford (2002) argue that training closes the gap between current and desired performance, enabling employees to function productively in changing environments. Training activities are generally categorized into on-the-job training and off-the-job training. On-the-job training occurs within the workplace environment, utilizing real work tools, technologies, and responsibilities. It enhances experiential learning and supports immediate performance application (Sabir et al., 2014). While off-the-job training are conducted outside the immediate work setting, enabling employees to focus on learning without work-related distractions. Off-the-job training enhances theoretical knowledge and prepares employees for long-term tasks (Manju & Suresh, 2011). Training serves as a foundation for developing core competencies such as communication, problem-solving, teamwork, adaptability, and leadership.

Employee productivity refers to the efficiency with which employees convert organizational resources into valuable outputs (Mathis & Jackson, 2000). Productivity is typically measured through indicators such as quantity of work completed, quality of output, timeliness, adherence to standards, self-initiative and problem-solving and task efficiency. Productivity contributes to organizational growth and competitive advantage (Sharma, 2014).

Previously, numerous empirical studies support the positive effect of training on productivity. Colombo and Stanca (2008) revealed that training enhances both employee and organizational performance through skill development and improved task execution. Elnaga and Imran (2013) demonstrated that training leads to higher work quality, job satisfaction,

and performance efficiency. Rohan and Madhumita (2012) suggest that training contributes to improved decision-making, teamwork, critical thinking, and behavioral change. Konings and Vanormelingen (2010) further noted that firms investing in training achieve higher productivity gains than those that do not. In developing contexts, such as Pakistan and Kenya, training has been shown to significantly enhance employee output and organizational effectiveness (Asava, 2014; Sabir et al., 2014). These findings support the hypothesis of this study that training has a significant positive impact on employee productivity.

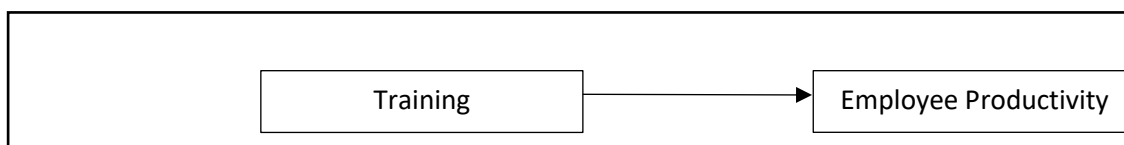


Figure 1: Conceptual Framework of the Study

Figure 1 depicts the conceptual framework of the study on the implication of training on employee productivity. The underlying theory for this study is grounded in Human Capital Theory (Becker, 1964) which explains that investments in employee knowledge, skills, and abilities lead to enhanced productivity and improved organizational performance. According to this theoretical view, training is understood as a strategic form of human capital investment that equips employees with updated competencies required to perform tasks more effectively. As organizations operate in increasingly dynamic environments, the acquisition of new skills through structured training becomes essential for closing performance gaps and sustaining competitive advantage. The literature supporting this theory emphasizes that well-designed training contributes not only to improved task execution but also to greater work quality, adaptability, and problem-solving capabilities. This study adopts Human Capital Theory as its foundation to examine how training enhances employee productivity at the Kurdistan Technical Institute, arguing that systematic and continuous learning initiatives enable employees to convert their enhanced capabilities into higher levels of efficiency, quality output, and organizational value.

Methodology

A quantitative research design using a survey was employed. This design allowed for statistical analysis of the perceptions and experiences of employees regarding training and productivity. The population consisted of 250 employees of the Kurdistan Technical Institute. Using Krejcie and Morgan's (1970) sample size table, a required sample of 152 respondents was identified. Simple random sampling was used to ensure equal probability of selection. A total of 72 valid responses were used for final analysis.

A structured questionnaire was developed with three sections. Section A is about the demographic data (age, gender, education, marital status), Section B measured the employee training (5 items) and Section C measured the employee productivity (5 items). All items were measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). A pilot test was conducted with 16 respondents. Cronbach's alpha values were $\alpha = .902$ for training and $\alpha = .837$ for employee productivity. Both exceed the recommended threshold of .70, indicating high internal consistency.

Questionnaires were distributed via Google Forms through the Human Resource Department. Participation was voluntary and anonymous. Responses were collected over a four-week period. Data were analyzed using SPSS. Descriptive statistics were used to summarize demographic data and variable means. Pearson correlation analysis examined the relationship between training and employee productivity.

Results

The results of the study provide insights into the demographic characteristics of respondents, the level of training provided by the Kurdistan Technical Institute (KTI), and the extent of employee productivity. A total of 72 valid responses were analyzed. Demographic analysis revealed that the majority of respondents were between 31 and 41 years old, representing 56.9% of the sample, followed by those aged 20–30 (33.3%) and 42–52 (9.7%). In terms of gender distribution, 54.2% of the respondents were male and 45.8% were female, indicating a relatively balanced workforce. Furthermore, most respondents held higher educational qualifications, with 47.2% possessing a bachelor's degree and 41.7% a master's degree, while only 11.1% had completed high school. Regarding marital status, 62.5% of the respondents were single and 37.5% married.

Descriptive analysis of the main variables revealed that the overall mean score for training was 3.18, reflecting a moderate level of training implementation within the institution. Although employees acknowledged the presence of training initiatives, the results suggest that these initiatives may not be sufficiently comprehensive or frequent. In contrast, the mean score for employee productivity was relatively high at 3.62, indicating that employees perceived themselves as productive in terms of task completion, quality of work, and efficiency. This highlights that despite moderate training exposure, employees demonstrate strong work performance.

The relationship between training and employee productivity was further examined using Pearson correlation analysis. The findings revealed a positive correlation coefficient of $r = 0.507$, indicating a moderate but statistically meaningful positive relationship between the two variables. This suggests that increases in the quality or frequency of training are associated with improvements in employee productivity. In summary, the results demonstrate that although training practices at KTI remain moderate, they exert a significant and positive influence on employee productivity, underscoring the importance of enhancing staff training initiatives to further strengthen organizational performance.

Discussion and Recommendation

The findings of this study demonstrate a clear and positive relationship between training and employee productivity at the Kurdistan Technical Institute (KTI). Descriptive results indicate that although the level of training provided by the institution is moderate, employees nevertheless report high levels of productivity. This suggests that even limited training initiatives can contribute meaningfully to performance, particularly when employees are motivated or possess strong intrinsic work habits. The Pearson correlation coefficient ($r = 0.507$) further confirms that training plays a substantive role in influencing how effectively employees perform their tasks. Employees who agreed that they received relevant and applicable training also tended to report higher levels of work efficiency, quality of output, and timely task completion.

These findings align closely with established literature, particularly studies by Elnaga and Imran (2013), Colombo and Stanca (2008), and Rohan and Madhumita (2012), which consistently report that training enhances performance by improving employees' knowledge, skills, and work behaviours. Similarly, the results support human capital theory, which suggests that investments in employee skill development yield measurable productivity gains. In the context of KTI, the findings highlight the importance of strengthening structured training programs to maximize organizational efficiency. Despite the moderate training implementation observed, employees' high productivity signals strong potential for even greater performance improvements should training systems be expanded and institutionalized. Overall, the discussion underscores that training is not only beneficial but essential for sustaining performance in educational institutions undergoing rapid development and modernization.

Although the study provides valuable insight into the relationship between training and employee productivity, several limitations should be acknowledged. First, the number of valid responses was limited to 72 out of the 152 questionnaires distributed. This response rate, although acceptable, restricts the generalizability of the findings to the wider staff population. Second, the study was conducted solely within one academic institution which is KTI. Thereby it limiting the external validity of the results. Organizations in other sectors or regions may have different training systems, resource availability, and staff demographics, which could lead to differing outcomes if the study were replicated elsewhere.

Another limitation concerns the availability and maturity of training programs in the Kurdistan region. Many organizations, including KTI, provide training on an irregular or limited basis due to budget constraints, lack of training specialists, or inadequate strategic planning. This may have influenced respondents' perceptions of training effectiveness and restricted the variability of the results. Additionally, because the study relies on self-reported data, responses may be influenced by personal bias or social desirability. Employees may overstate their productivity or satisfaction to present themselves favourably. Despite these limitations, the study still offers valuable insights but should be interpreted with caution and complemented by future research employing broader and more diverse samples.

Based on the findings, several recommendations are proposed to enhance the effectiveness of training and improve employee productivity at KTI and similar institutions. First, it is crucial for the organization to strengthen and expand its training programs. Management should develop structured, continuous training initiatives aligned with job requirements, technological advancements, and institutional goals. By increasing the frequency and relevance of training, employees will have greater opportunities to update their skills, address performance gaps, and improve their work efficiency.

Second, KTI should allocate sufficient resources such as financial, technical, and human to support comprehensive staff development. Establishing a dedicated training unit or collaborating with external training providers could ensure higher-quality learning experiences. Incorporating digital and e-learning platforms may also be beneficial, particularly in resource-limited environments, as they offer flexible and cost-effective training alternatives.

Third, the organization should implement systematic post-training evaluations to assess training outcomes and measure performance improvements. This creates a feedback loop that allows management to refine training content and delivery methods. Additionally, building a culture that values learning and professional growth is essential. Leaders should encourage participation in training programs by recognizing and rewarding employees who actively pursue skills development. Finally, future researchers are encouraged to explore training effectiveness using larger sample sizes, multiple institutions, or mixed-method approaches to deepen the understanding of how training influences productivity across different organizational contexts.

Conclusion

This study demonstrates that training significantly enhances employee productivity at KTI. The positive correlation between training and productivity confirms that organizations benefit substantially from investing in human capital development. Despite moderate levels of training implementation, employees demonstrate high productivity, suggesting untapped potential for further improvement through structured training initiatives.

Strengthening training systems and aligning them with organizational goals can further increase efficiency, service quality, and institutional performance. As Kurdistan continues to develop economically and educationally, training will remain a vital strategy for cultivating a competent and competitive workforce.

This study set out to examine the impact of training on employee productivity at the Kurdistan Technical Institute (KTI). Using a quantitative approach and analyzing responses from 72 employees, the study found clear evidence that training plays a significant and positive role in enhancing productivity. Although the descriptive results indicated that the overall level of training provided at KTI is moderate, employees nevertheless reported high levels of productivity, suggesting that even limited training initiatives contribute meaningfully to performance outcomes. The correlation results further confirmed a moderate but meaningful positive relationship between training and productivity, demonstrating that employees who receive relevant and effective training are more capable of completing tasks efficiently, producing high-quality work, and meeting organizational expectations. These findings align with previous literature and reinforce the central premise of human capital theory—that investment in employee learning and development yields measurable performance benefits.

Overall, the results highlight the strategic importance of strengthening training systems within KTI and similar institutions. While employees are performing well, the study suggests that more structured, consistent, and needs-based training programs could further increase productivity and institutional effectiveness. As Kurdistan continues to advance in education and organizational development, training will remain a critical mechanism for equipping employees with the necessary skills to navigate change, improve service quality, and support organizational growth. Future research is encouraged to expand the scope of inquiry by including multiple institutions or integrating qualitative methods to gain deeper insights into training practices and their long-term influence on workforce performance.

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