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THE IMPACT OF TRAINING AND DEVELOPMENT ON EMPLOYEE PRODUCTIVITY: CASE STUDY AT YEMEN KUWAIT BANK IN SANA'A, YEMEN

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Abstract

It is well known that training and development (T&D) has a major impact on employee performance and organizational success, particularly in knowledge-intensive industries like banking. However, in developing countries like Yemen, where institutions face unique challenges like political uncertainty and inadequate succession planning, the effectiveness of T&D programs remains understudied. This study investigates the impact of Training and Development on Employee Productivity at Yemen Kuwait Bank (YKB) in Sana'a, Yemen. It examines three key dimensions of T&D—types of training programs, training methods, and development programs—and their influence on employee productivity, measured through employee performance, job satisfaction, and contribution to organizational growth. A quantitative, correlational research design was employed. Data were collected using a structured questionnaire administered to 153 employees at YKB's Sana'a branch. A random sampling strategy was adopted to ensure balanced representation across different job positions and experience levels within the bank. This strategy was supported by the requirement to include a range of viewpoints from different organizational levels in order to increase the sample's representativeness. High reliability was shown by the instrument (Cronbach's Alpha > 0.60 for all constructs). Data analysis utilized descriptive statistics, Pearson correlation, and *multiple regression analysis using SPSS. The results show that T&D significantly, positively, and strongly affects employee productivity (R^2=0.531, β=0.729, p<0.001), accounting for 53.1% of its variance. Training program types (β=0.332, p<0.001), training techniques (β=0.292, p<0.001), and development programs (β=0.250, p<0.001) were all significant predictors. Training program types turned out to be the strongest predictor. Improving employee efficiency in Yemen's banking industry requires organized and pertinent T&D programs. The paper provides bank management with useful guidance on how to develop effective T&D plans, close productivity gaps, and preserve long-term competitiveness. Recommendations include improving long-term development programs, varying training methods, and regularly evaluating training needs in order to maximize productivity gains.*

Keywords: Training and development, employee productivity, banking sector, and succession planning

INTRODUCTION

A key component of national economies, the banking industry promotes capital flow and fosters profitable economic activity. Employee productivity is essential for business success in this cutthroat environment, and training and development (T&D) initiatives have become essential instruments to improve labor competencies. T&D initiatives and employee productivity are positively correlated, according to empirical research, especially in knowledge-intensive industries like banking.

Effective training equips employees with technical, soft, and leadership skills, which improves job satisfaction, reduces attrition, and ultimately improves organizational performance. However, the effectiveness of T&D programs is often influenced by contextual factors such as local economic conditions, industry-specific challenges, and business culture.

Even though these processes have been extensively researched in wealthy economies, we still don't fully understand how they work in underdeveloped countries like Yemen, where institutional constraints and poor succession planning may prevent productivity growth.

Ad hoc leadership changes and a lack of formal succession plans cause operational difficulties for Yemen Kuwait Bank (YKB), as they do for many other financial institutions in the area.

Even though T&D research in both established and emerging economies is abundant, there are still a number of important gaps that need to be filled. First, fragile and conflict-affected governments like Yemen have received little attention in previous research, which has mostly concentrated on stable economic situations. Second, while the banking sector in developing nations—especially in the Middle East and North Africa (MENA) region—remains understudied, most T&D research has focused on these techniques in manufacturing or service industries. Third, although researchers have demonstrated the value of T&D for productivity, few studies have broken down T&D into its component elements (program kinds, techniques, and development efforts) to identify the elements that have the biggest impact on productivity outcomes. Fourth, there hasn't been much empirical research on the connection between T&D and succession planning, which is crucial for organizational continuity in unpredictable situations.

By investigating the intricate effects of T&D on employee productivity in a Yemeni bank—an environment marked by institutional instability and resource limitations—this study fills in these gaps.

A crucial component of organizational management and leadership development is succession planning. When done correctly, it greatly aids in a company's growth by providing thorough advice on how to choose new employees, prepare them for leadership roles in the future, and keep them on board for long-term success. However, YKB does not currently have a formal succession policy, which could cause operational interruptions, institutional knowledge loss, and a decline in employee enthusiasm because there are no clear career advancement opportunities. Ad hoc replacements, sometimes without prior training or appropriate competency testing, are the result of a lack of a systematic approach to identifying, training, and developing high-potential employees for future leadership roles.

Long-term performance, organizational stability, and worker productivity may all suffer as a result of this disparity. Thus, the purpose of this study is to investigate how staff productivity at Yemen Kuwait Bank in Sana'a, Yemen, is affected by training and development. By analyzing the relationship between T&D dimensions—training program types, training methods, and development programs—and employee productivity in a high-risk, resource-constrained banking setting, this study offers a novel viewpoint to the field of human resource management. Few studies have looked specifically at the effect of these T&D aspects in the Yemeni setting, despite the fact that previous research has separately connected T&D to productivity improvements and highlighted the significance of leadership in driving organizational performance.

In banking environments, where resources for specialized HR initiatives may be limited, the emphasis on T&D as a multidimensional construct adds a new dimension to understanding how businesses may actually affect productivity.

Definition of Terms

In this study, **Training** refers to skill-enhancing programs organized for workers, designed to improve performance and is mostly defined as learning related to job performance.

Development is defined as a process of helping employees improve their capacity to plan, diagnose problems, proffer appropriate solutions, and generally improve their decision-making skills and competences.

Succession Planning refers to a process and strategy for replacement planning or passing on leadership roles.

Employee Productivity is a gauge of how well workers carry out their duties and contribute to the organization's overall performance and objectives.

Types of Training Programs refers to the classification of training programs according to their goals, methods, and content.

Training Methods refer to the methodical strategies and tactics employed by businesses to teach staff members competence, knowledge, and skills in order to improve their performance.

Development Programs refer to organized programs created to improve workers' long-term competencies, professional development, and leadership potential beyond the demands of their current positions. **Employee Performance** refers to the degree of accomplishing the tasks that are composed in an individual's job detail.

Job Satisfaction refers to the favorable emotional state and psychological satisfaction that workers feel when their workplace, job responsibilities, and organizational procedures match their individual needs, expectations, and career goals.

Contribution to Organizational Growth refers to the quantifiable and qualitative gains in an organization's competitiveness, efficiency, and performance brought about by staff development and training initiatives.

THEORETICAL FOUNDATIONS

To explain the relationships among the study variables, this research draws on Human Capital Theory, Resource-Based Theory, and Expectancy Theory. Together, these theories provide a robust foundation for examining how training and development influence employee productivity.

Human Capital Theory

According to this theory, which has its roots in Adam Smith's "Wealth of Nations," human resources are crucial to any productive process and ought to be developed through incentives and excellent training. According to proponents of the human capital hypothesis, employees who obtain sufficient education through workplace training and other organized methods would perform better, earn more money, and advance in their careers faster. Schultz (1961) says that investments in human capital, such as health, education, and training, improve individual productivity and support economic expansion. Mincer (1974) went on to explain that a large percentage of income increase and skill development over an employee's career can be attributed to on-the-job training.

Becker (1964) distinguished between general training, which enhances skills transferable across businesses, and specific training, which increases productivity solely within the employing corporation. For banks in particular, this contradiction is crucial since optimal performance necessitates both firm-specific skills (internal systems, processes) and universal skills (financial literacy, customer service).

Resource-Based Theory

According to this notion, companies should make significant investments in their resource bases in order to sustain a competitive edge in the market. This resource hierarchy places the workers at the top. Organizational resources are seen as rare, valuable, unique, and non-replaceable (VRIN). This group includes skilled people, and in order to gain a strategic competitive edge, businesses must efficiently integrate all of their resource bases. This concept was expanded to human resources by Wright, Dunford, and Snell (2001), who contended that when human capital satisfies the VRIN requirements, it can be a source of long-term competitive advantage. In a similar vein, Lado and Wilson (1994) argued that human resource systems, including training and development, produce distinct organizational skills that are difficult for rivals to imitate. Developing unique human capital through T&D becomes a very important source of competitive differentiation in Yemen's banking industry, where infrastructure and technology resources may be scarce.

Expectancy Theory

According to this view, workers have the cognitive ability to make logical decisions based on their expectations. Numerous studies have examined the crucial causal relationship between workers' expectations, their propensity for increased productivity, and possible incentive motivators. When there is a good chance that increasing job productivity will help employees achieve their intrinsic personal goals, they will act favorably toward it. According to Vroom (1964), expectancy—the conviction that effort results in performance—instrumentality—the conviction that performance results in rewards—and valence—the value placed on the rewards—are the three main factors that determine motivation. This model was expanded by Porter and Lawler (1968), who included role perceptions and individual abilities as moderators of the effort-performance relationship.

According to this idea, employees will put forth effort in T&D when they think it will improve their performance (expectancy), lead to career development (instrumentality), and provide personally desired results like praise or promotion (valence). This approach is especially useful for comprehending how T&D activities inspire workers in environments with limited resources and few tangible rewards.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Training and Development and Employee Productivity

Recent research has focused a lot of attention on the connection between employee productivity and training and development (T&D), and there is growing evidence that structured T&D programs greatly improve workforce performance. A thorough empirical study by Hosen, Hamzah, Arif Ismail, Noormi Alias, Faiq Abd Aziz, and Rahman (2024) showed that organizational commitment, career development programs, and training and development are all effective indicators of work performance. Their study, which included a sample of employees from a variety of industries, demonstrated that businesses that offer opportunities for continuous learning see measurable improvements in employee engagement, productivity, and overall performance.

Similarly, Shalini (2024) investigated the impact of training programs on employee performance and organizational success and concluded that well-planned training initiatives produce measurable improvements in both individual and organizational outcomes. The study concludes that while program relevance and alignment with employee requirements are critical to training efficacy, employers should carefully organize their training interventions to meet specific skill shortages rather than utilizing general strategies. Mustapha and Aliyu (2025) conducted an investigation into the effects of employee training programs on organizational performance in dynamic business environments. They found that organizations operating in rapidly changing contexts greatly benefit from adaptive training strategies that respond to changing market demands and technological advancements.

By putting up a composite framework for training effectiveness evaluation based on Kirkpatrick's model, Paul, Burman, and Singh (2024) advanced the conversation. Effective training programs yield quantifiable benefits on several levels, including participant responses, learning acquisition, behavioral change, and organizational outcomes, according to their research. As businesses look to provide measurable returns on training expenditures and justify their investments in human capital development, this multi-level perspective has grown in significance. Elagaili, Azam, Tham, and Khatibi (2024) investigated how training and development initiatives might improve worker loyalty and job satisfaction. According to their research, workers who believe their companies are dedicated to their professional growth exhibit better levels of job satisfaction, organizational commitment, and less plans to leave. This implies that T&D expenditures have two benefits: they increase productivity right away while also promoting long-term employee retention and organizational stability.

According to Flegl, Depoo, and Alcázar's (2022) analysis of how employee training affects performance gains, the effectiveness of training varies greatly depending on how it is delivered and how relevant the information is. Instead of using general approaches that might not satisfy organizational goals, their research highlighted the necessity for firms to carefully create training programs to address specific skill gaps and fit with strategic objectives. Abiddin and Talha (2024) carried out a thorough literature assessment on improving work performance through human capital development in the context of developing economies. According to their study, human capital development—which includes education, training, and skill development—is especially important in emerging economies because institutional and technological resources may be scarce. This finding is particularly pertinent to the Yemeni environment, where political unrest and infrastructure difficulties call for a greater dependence on human capital as an organizational resilience mechanism and competitive differentiator.

In their comprehensive analysis of social exchange theory, Ahmad, Nawaz, Ishaq, Khan, and Ashraf (2023) offered insightful information about how organizational investments in workers result in good behaviors that are reciprocated. Employee engagement, loyalty, and productivity all increase when organizations show a commitment to employee development through training and support, according to their review. This mechanism seems especially pertinent in unstable environments where job security and career advancement are uncertain. Raeisinafchi, Bhandari, Perry, Hallowell, Albert, and Correll (2025) compared training delivery strategies and looked at how they affected employee engagement and learning outcomes. According to their research, interactive and immersive training approaches—including simulations, hands-on practice, and on-the-job training—produce noticeably superior learning outcomes than passive approaches like lectures or reading materials. This emphasizes how crucial method selection is when designing training programs and how firms must use a variety of delivery strategies.

In the midst of the ongoing conflict, Al-Waziza, Sheikh, Ahmed, Al-Masbhi, and Dureab (2023) examined Yemen's health system at the governorate level, offering important background for comprehending institutional issues in the nation. Their study revealed how political unrest, infrastructure restrictions, and resource scarcity impact organizational effectiveness in a variety of industries. In Yemeni institutions, where external constraints like limited internet access, electrical shortages, and economic sanctions may have a substantial impact on training outcomes and staff productivity, this contextual understanding is crucial for assessing the effectiveness of T&D. In Hodeida hospitals in Yemen, Fadhel and Alqurs (2024) examined the connections between occupational health and safety, comprehensive quality management, and strategic leadership. Their results showed that, even in settings with limited resources, leadership dedication to staff development and quality management techniques greatly improves organizational performance. This study offers empirical proof that, in the Yemeni context, strategic investments in human capital provide positive returns, indicating that T&D programs can be successful even in the face of difficult institutional circumstances. Based on this extensive and recent evidence, the following hypothesis was developed:

H1: There is a significant impact of training and development programs on employee productivity at Yemen Kuwait Bank.

Types of Training Programs and Employee Productivity

The importance of training program types in determining effectiveness and productivity outcomes has been highlighted by recent research. According to Elagaili et al. (2024), companies with a variety of training programs—such as technical, leadership, and soft skills training—achieve better performance results and employee satisfaction than companies with fewer training alternatives. In a similar vein, Mustapha and Aliyu (2025) showed that training programs customized to particular job requirements and organizational needs yield better performance outcomes than generic programs that ignore context-specific issues.

According to Hosen et al. (2024), a crucial factor in determining the efficacy of training and the ensuing increases in productivity is the alignment of training material with occupational requirements. Employees that receive training directly related to their job duties exhibit higher levels of performance, commitment, and job satisfaction, according to their research. This result emphasizes how crucial it is to regularly review training needs in order to guarantee program relevance and to spot changing skill gaps that might appear as organizational requirements change. Shalini (2024) noted that since employees at all levels are expected to exhibit interpersonal and managerial competencies, leadership and soft skills training programs have grown in importance in contemporary firms. A balanced approach to training content is crucial for optimizing productivity gains, according to the study, which indicated that firms investing in comprehensive training portfolios that target both technical and soft skills have greater performance outcomes.

According to Paul, Burman, and Singh's (2024) methodology for assessing the efficacy of various training modalities, businesses ought to take a well-rounded strategy that incorporates leadership and behavioral training in addition to technical skill development. In service-oriented industries like banking, where customer engagement is regular and crucial, this integrated approach guarantees that employees acquire both the technical competencies and the interpersonal skills required for organizational success. Training programs that cover both technical and management competencies are more beneficial in situations with limited resources, according to context-specific research from Yemen presented by Fadhel and Alqurs (2024). According to their research, employees choose training that improves their immediate job performance and employability in unpredictable environments, thus the kind of training program is especially important for productivity outcomes. Based on this evidence, the following hypothesis was developed:

H1a: Types of training programs have a significant positive effect on employee productivity at Yemen Kuwait Bank.

Training Methods and Employee Productivity

Recent research has focused a lot of attention on how well training techniques translate information into improved performance. In a thorough comparison of training delivery methods, Raeisinafchi et al. (2025) discovered that active learning approaches—such as simulations, hands-on practice, and on-the-job training—produce noticeably better learning outcomes than passive methods, such as lectures or online modules without interaction. According to their research, businesses should embrace flexible and diversified approaches to training delivery, with learning objectives and trainee characteristics serving as a guide for method selection.

According to Flegl, Depoo, and Alcázar's (2022) analysis of the association between training techniques and performance gains, a blended approach that combines several techniques produces the greatest outcomes. In order to ensure that all employees can benefit from training opportunities regardless of their particular learning preferences, their findings recommended that organizations diversify their training approaches to accommodate varied learning styles and preferences. Organizations that use flexible and adaptable training techniques, such as online learning, micro learning, and just-in-time training, are better able to react to changing market demands and dynamic business environments, according to Mustapha and Aliyu's (2025) research. Their study made clear how crucial it is to incorporate technology into training, especially in situations when traditional training methods could be constrained by available resources.

According to Elagaili et al. (2024), choosing a training approach has a big impact on how satisfied and engaged employees are with the material. According to their research, workers who believe that training approaches are interesting, pertinent, and participatory show greater levels of commitment and job satisfaction, which in turn boosts output and retention. Incorporating training technique evaluation into their all-encompassing framework, Paul, Burman, and Singh (2024) emphasized that successful training programs employ a variety of delivery methods to accommodate various learning styles and guarantee maximal learning retention. According to their research, while creating training interventions, businesses should take both content and approach into account. Based on this evidence, the following hypothesis was developed:

H1b: Training methods have a significant positive effect on employee productivity at Yemen Kuwait Bank.

Development Programs and Employee Productivity

Employee productivity and organizational dedication have been demonstrated to be greatly increased by development programs, such as coaching, mentoring, career pathing, leadership development, and team projects. According to Hosen et al. (2024), training programs alone do not yield the same performance results as career development activities. According to their findings, firms should invest in both training and development activities in order to achieve productivity benefits because they are complementary. Theoretical insights on how development programs affect employee behavior were offered by Ahmad et al. (2023). According to their analysis of social exchange theory, workers who believe their employers are dedicated to their long-term growth will reciprocate with higher levels of engagement, loyalty, and discretionary effort, all of which improve organizational performance and productivity.

According to a systematic analysis of human capital development by Abiddin and Talha (2024), companies that invest in complete development programs—which include career planning, coaching, and mentoring—achieve higher levels of employee performance and retention. The long-term advantages of development investments were highlighted in their study, which recommended that firms see development initiatives as strategic investments rather than optional costs. In the Yemeni context, Fadhel and Alqurs (2024) showed that leadership development programs greatly improve organizational performance. According to their research, even in difficult settings with limited resources and unstable political circumstances, hospitals that invested in leadership development saw increases in employee satisfaction and organizational efficacy.

According to Shalini (2024), employee motivation and performance are greatly increased by development programs that offer clear professional advancement pathways. The study highlighted that when employees perceive clear connections to prospects for professional progression and real incentives, they are more likely to put effort into development initiatives. Based on this evidence, the following hypothesis was developed:

H1c: Development programs have a significant positive effect on employee productivity at Yemen Kuwait Bank.

Research Framework

This research examines the impact of Training and Development and its dimensions (the independent variables) on employee productivity and its dimensions (the dependent variables). The study's conceptual framework is illustrated in Figure 1.

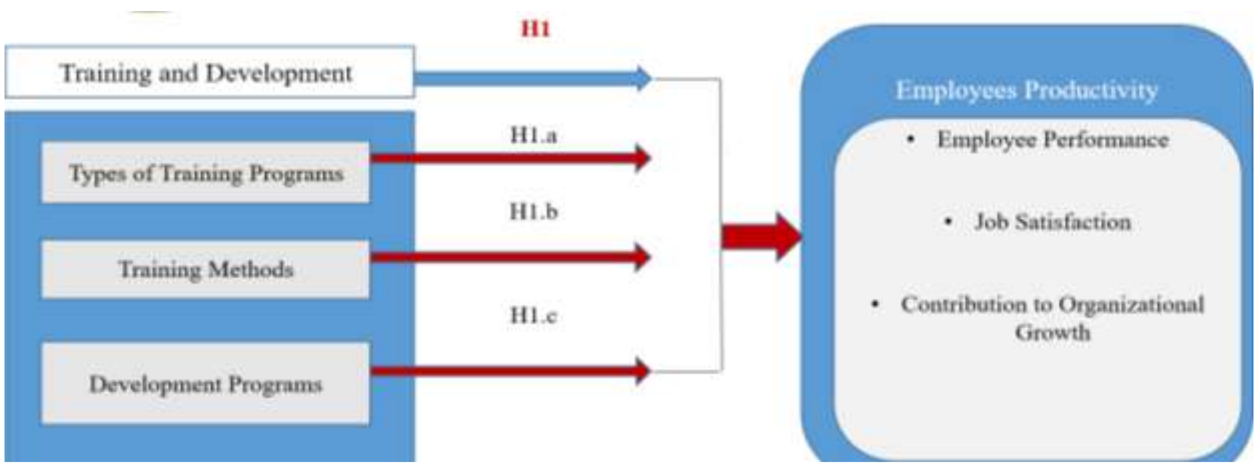

Figure 1 Conceptual Framework of the Study

This figure presents the conceptual framework of the study, illustrating the relationship between Training and Development (T&D) dimensions and Employee Productivity. The model highlights the direct influence of T&D on productivity and the specific contributions of types of training programs, training methods, and development programs. Arrows indicate hypothesized causal paths based on the study's theoretical foundations and empirical analysis.

METHODOLOGY

Study Design, Participants, and Data Collection

This study employed a quantitative approach to investigate the relationships between Training and Development (T&D) dimensions and Employee Productivity in a banking setting.

Using a cross-sectional survey design, data were collected through a structured questionnaire developed based on an extensive literature review to ensure the use of well-established scales for measuring types of training programs, training methods, development programs, employee performance, job satisfaction, and contribution to organizational growth, as shown in the Appendix A.

To enhance the survey's relevance and clarity, the questionnaire was translated into Arabic, the participants' mother tongue, to minimize potential misinterpretations caused by language barriers. This practice significantly enhanced the inclusivity and accuracy of the research.

The target population consisted of 280 employees working at Yemen Kuwait Bank's Sana'a branch. A random sampling strategy was adopted for this study. This sampling approach was justified for several reasons: first, it ensures that diverse perspectives from various job roles are captured; second, it enhances the representativeness of the sample by reducing sampling bias; and third, it allows for meaningful comparisons across different employee groups. The sample size was determined using the Krejcie and Morgan table, which provides guidelines for selecting an adequate sample size based on population size, ensuring statistical representativeness. According to the table, for a population of 280, a minimum sample size of 162 participants is recommended.

The survey was administered to employees across various positions and educational backgrounds at YKB's Sana'a branch. A two-phase, hybrid approach was employed to administer the questionnaire and secure the necessary sample size. Initially, the questionnaire was distributed electronically. To address the lower-than-required response rate, a second phase was initiated where the researcher personally administered a paper-based version within the bank premises. This direct approach encouraged participation and provided immediate clarification to respondents. A total of 162 questionnaires were distributed, and 153 valid responses were received, yielding a response rate of 94.4%.

Measurement of Variables

- **Training and Development (T&D)** was measured using three dimensions: Types of Training Programs (5 items), Training Methods (5 items), and Development Programs (5 items).
- **Employee Productivity** was assessed using three dimensions: Employee Performance (5 items), Job Satisfaction (5 items), and Contribution to Organizational Growth (5 items).

All items were measured using a five-point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

Data Analysis

Data were analyzed using SPSS version 28. A systematic approach was adopted for the analysis. First, data screening procedures were conducted, including checking for missing values, assessing normality, and ensuring the data's suitability for statistical testing. Descriptive statistics (means, standard deviations, and relative importance indices) were calculated to summarize the characteristics of the sample and the central tendencies of the study variables.

To ensure the validity and reliability of the collected data, several criteria were applied during the data screening process. First, questionnaires with excessive missing values (more than 10% of items unanswered) were excluded from the analysis. Second, univariate outliers were identified using standardized z-scores, with values exceeding ±3.29 considered as outliers and excluded. Third, the presence of extreme central tendency bias (responses consistently falling in the middle of the scale) was examined, and such responses were removed to prevent distortion of the results. These procedures ensured that only high-quality data were retained for the final analysis (Hair et al., 2019; Tabachnick & Fidell, 2019).

Pearson correlation analysis was employed to explore the relationships between the independent variables (types of training programs, training methods, and development programs) and the dependent variable (employee productivity and its dimensions).

Simple linear regression and multiple regression analyses were conducted to test the study hypotheses. The simple regression examined the overall impact of T&D on employee productivity (H1), while multiple regression assessed the individual effects of the three T&D dimensions on productivity (H1a, H1b, H1c). Key assumptions for regression analysis—linearity, normality of residuals, homoscedasticity, and absence of multicollinearity—were tested and confirmed prior to hypothesis testing.

Reliability and Validity

Reliability was assessed using Cronbach's Alpha coefficient. All values exceeded the minimum acceptable threshold of 0.60 recommended by Nunnally and Bernstein, indicating acceptable to high levels of reliability. For T&D dimensions, Cronbach's Alpha values were: types of training programs (0.866), training methods (0.790), and development programs (0.889). For employee productivity dimensions, values were: employee performance (0.768), job satisfaction (0.604), and contribution to organizational growth (0.732).

Convergent validity was assessed by examining correlations between each dimension and its overall construct. All correlations were high, positive, and statistically significant ($p < 0.001$), ranging from 0.831 to 0.893, exceeding the recommended threshold of 0.50 and providing robust evidence of convergent validity.

Common Method Bias

To examine whether common method variance (CMV) posed a serious threat to the validity of the study results, Harman's single-factor test was employed. The results revealed that the first unrotated factor explained 36.2% of the variance, well below the commonly accepted threshold of 50%, indicating that common method bias is not a significant concern in this study.

RESULTS

Assessment of Measurement Constructs

As presented in Table 1, the measurement model assessment evaluates the reliability and validity of the study's constructs, including Training and Development dimensions and Employee Productivity dimensions, to ensure robust measurement integrity. Key metrics applied are Cronbach's Alpha and correlation coefficients for convergent validity.

Indicator reliability was confirmed with all Cronbach's Alpha values exceeding the acceptable benchmark of 0.60, underscoring strong internal consistency. Convergent validity was established through significant correlations between each dimension and its overall construct ($p < 0.001$).

Table 1 Measurement Model Assessment (Reliability and Convergent Validity)

Construct	Dimension	Cronbach's Alpha	Correlation with Construct
Training and Development	Types of Training Programs	0.866	0.831**
	Training Methods	0.790	0.832**
	Development Programs	0.889	0.840**
Employee Productivity	Employee Performance	0.768	0.893**
	Job Satisfaction	0.604	0.855**
	Contribution to Organizational Growth	0.732	0.847**

**p < 0.001

Normality Assessment

Table 2 presents the skewness and kurtosis statistics for the study variables. According to George and Mallery and Kline, skewness and kurtosis values that fall within the range of ±1 are considered acceptable indicators of normal distribution. All values in this study fall comfortably within this range, confirming the suitability of the dataset for conducting further parametric statistical analyses such as correlation and regression, which assume normality of data distribution.

Table 2 Normality Assessment

Variable	N	Skewness	Std. Error	Kurtosis	Std. Error
Training and Development	153	-0.213	0.196	0.223	0.390
Employee Productivity	153	-0.135	0.196	-0.334	0.390

Descriptive Statistics

Table 3 presents the descriptive statistics for the study variables. The results indicate that all dimensions received relatively high mean scores, suggesting that respondents generally perceived training and development practices and their productivity positively.

Table 3 Descriptive Statistics

Variable / Dimension	Mean Score	Standard Deviation	Relative Importance Index (RII)
Training and Development	**3.95**	**0.424**	**79.03%**
- Types of Training Programs	4.07	0.485	81.41%
- Training Methods	3.95	0.458	78.91%
- Development Programs	3.84	0.582	76.76%
Employee Productivity	**4.17**	**0.466**	**83.37%**
- Employee Performance	4.10	0.541	81.91%
- Job Satisfaction	4.10	0.555	82.07%
- Contribution to Organizational Growth	4.31	0.519	86.14%

Among T&D dimensions, "Types of Training Programs" recorded the highest mean value (M = 4.07, RII = 81.41%), indicating that respondents considered the selection and design of training programs as the most significant aspect of T&D. Among productivity dimensions, "Contribution to Organizational Growth" recorded the highest mean (M = 4.31, RII = 86.14%), suggesting that respondents perceive their contributions as significantly impacting organizational success.

Correlation Analysis

To explore the relationships among the study variables, a Pearson correlation analysis was conducted, and the results are presented in Table 4. All correlations were positive and statistically significant at the 0.01 level, indicating that improvements in one variable are generally associated with improvements in the others.

Table 4 Correlation Analysis

Variable	1	2	3	4	5	6
Types of Training Programs	1					
Training Methods	0.604**	1				
Development Programs	0.508**	0.526**	1			
Employee Performance	0.563**	0.515**	0.501**	1		
Job Satisfaction	0.592**	0.589**	0.596**	0.654**	1	
Contribution to Org. Growth	0.492**	0.515**	0.381**	0.662**	0.553**	1

**p < 0.01

Within the construct of training and development, types of training programs was positively correlated with training methods ($r = 0.604$, $p < 0.01$) and development programs ($r = 0.508$, $p < 0.01$). Regarding employee productivity, employee performance correlated positively with job satisfaction ($r = 0.654$, $p < 0.01$) and contribution to organizational growth ($r = 0.662$, $p < 0.01$). Cross-construct correlations revealed that development programs demonstrated strong correlations with job satisfaction ($r = 0.596$, $p < 0.01$) and employee performance ($r = 0.501$, $p < 0.01$).

Regression Analysis

Hypothesis 1: Overall Impact of T&D on Employee Productivity

To examine the main hypothesis regarding the effect of training and development on employees' productivity, a simple linear regression analysis was conducted. The results are presented in Table 5.

The regression model produced an R value of 0.729 and an R^2 of 0.531, indicating that T&D explains approximately 53.1% of the variance in employee productivity. The ANOVA results show that the regression model is highly significant ($F = 170.835$, $p < 0.001$). The standardized beta coefficient (β = 0.729, t = 13.070, $p < 0.001$) indicates a strong, positive, and statistically significant effect. **H1 is supported.**

Table 5 Regression Analysis - Main Hypothesis (H1)

Model Summary			ANOVA			
R	R^2	Adjusted R^2	Model	F	df	Sig.
0.729	0.531	0.528	Regression	170.835	1	< 0.001
Coefficients						
Variable	B	Std. Error	Beta (β)	t	Sig.	
T&D (Constant)	0.800	0.061	0.729	13.070	< 0.001	

Hypotheses 1a, 1b, 1c: Impact of T&D Dimensions on Employee Productivity

To test the sub-hypotheses regarding the impact of T&D dimensions on employee productivity, multiple regression analysis was conducted. The model included types of training programs, training methods, and development programs as predictors, with employee productivity as the dependent variable. These results are presented in the Table 6.

Table 6 Regression Analysis - Sub-Hypotheses (H1a, H1b, H1c)

Model Summary			ANOVA			
R	R^2	Adjusted R^2	Model	F	df	Sig.
0.732	0.536	0.527	Regression	57.461	3	< 0.001
Coefficients						
Predictor (Dimension)	B	Std. Error	Beta (β)	t	Sig.	Decision
Types of Training Programs (H1a)	0.319	0.070	0.332	4.554	< 0.001	Supported
Training Methods (H1b)	0.297	0.075	0.292	3.957	< 0.001	Supported
Development Programs (H1c)	0.200	0.055	0.250	3.654	< 0.001	Supported

The model produced an R value of 0.732 and an R^2 of 0.536, indicating that the three T&D dimensions explain approximately 53.6% of the variance in employee productivity. All three predictors had statistically significant positive effects. Types of training programs emerged as the strongest predictor (β = 0.332, $p < 0.001$), followed by training methods (β = 0.292, $p < 0.001$), and development programs (β = 0.250, $p < 0.001$). **H1a, H1b, and H1c are all supported.**

DISCUSSION

The findings of this study provide significant insights into the role of Training and Development (T&D) in enhancing employee productivity in banks, with specific implications for the Yemeni banking sector. This discussion seeks to interpret these findings, compare them with prior research, explain the contextual factors that shape their meaning, and examine how the results align with or diverge from theoretical expectations.

The Central Role of T&D in a Resource-Constrained Context: A Theoretical Integration

The strong positive relationship observed between T&D and employee productivity supports Human Capital Theory (Becker, 1964) in a way that extends its original formulation. Becker argued that investments in employee skills yield returns through enhanced productivity. This study's findings confirm this fundamental proposition. However, what makes this finding particularly significant is its manifestation in the Yemeni context—a country experiencing prolonged political instability, economic sanctions, and infrastructural challenges. This finding supports Human Capital Theory in a way that demonstrates that the returns to human capital investment are not diminished in unstable contexts but may actually be intensified. When other competitive advantages (such as technology or infrastructure) are limited, human capital becomes a more critical differentiator. This extends Becker's original formulation by showing that the returns to human capital investment vary systematically with environmental stability.

This finding aligns with the work of Zafar (2020), who argued that in unstable environments, T&D becomes a critical mechanism for organizational resilience and adaptability. The fact that T&D explained a substantial portion of the variance in productivity under such conditions suggests that human capital development may be even more critical in resource-constrained environments. This finding supports the Resource-Based View (Barney, 1991) in a way that demonstrates that even in resource-constrained environments, firms can develop valuable, rare, and inimitable human resources through strategic T&D investments. This aligns with Barney's contention that human resources can be a source of sustained competitive advantage when they meet VRIN (Valuable, Rare, Inimitable, Non-substitutable) criteria.

When comparing these findings with prior studies, both agreement and divergence emerge. This study agrees with Kaur's (2016) findings in India and Khan, Perveen, and Shujat's (2017) findings in Pakistan, both of which reported strong positive associations between T&D and productivity in the banking sector. This convergence across different national contexts suggests that the T&D-productivity relationship is robust across diverse settings. However, this study diverges from studies conducted in highly stable Western contexts (e.g., United States, Germany) where the magnitude of T&D's impact on productivity is often smaller because other factors such as technology and infrastructure play larger roles. In the Yemeni context, the relative absence of these alternative productivity drivers makes T&D's contribution more pronounced. This divergence highlights the contextual contingency of T&D effectiveness.

Types of Training Programs as the Strongest Predictor: Theoretical Interpretation

The finding that types of training programs emerged as the strongest predictor supports Human Capital Theory in a way that emphasizes the importance of relevant skill acquisition. Holton's (1996) training transfer model posits that training transfer is contingent upon content relevance and alignment with job requirements. This study's findings empirically validate Holton's proposition in the Yemeni banking context. The high mean score for the perceived essentiality of training programs reflects employees' acute awareness that their professional survival depends on acquiring relevant skills. This finding contrasts with findings from more stable contexts where training may be viewed as routine rather than essential.

This study agrees with Odesanya's (2020) findings in Nigeria, where training content relevance was identified as a critical factor for productivity. However, this study diverges from studies conducted in highly automated banking environments (e.g., Singapore, South Korea) where the type of training program matters less because employees rely heavily on standardized technological systems. In Yemen's context, where technological infrastructure is limited, employees must compensate for systemic deficiencies with enhanced individual competence, making training content particularly critical. This divergence suggests that the importance of training types relative to other T&D dimensions varies with the level of technological development in the banking sector.

Training Methods: Balancing Tradition and Innovation in an Unstable Context

The significant effect of training methods observed in this study supports Expectancy Theory (Vroom, 1964) in a way that highlights the role of delivery mechanisms in shaping employee motivation. According to Expectancy Theory, employees invest effort in training when they believe it will enhance their performance (expectancy). This study's findings suggest that the methods used to deliver training influence employees' expectancy perceptions—when training is delivered through trusted, familiar methods (such as in-house courses and workshops), employees are more likely to believe that the training will be effective.

The finding that job rotation received the lowest rating among training methods diverges from studies in Nigeria (Abdullahi, 2018) and India (Bagdi & Sharma, 2018), where job rotation was more positively received. This divergence can be explained through the lens of Hofstede's (2001) cultural dimensions' theory. Yemen is characterized by high uncertainty avoidance, meaning employees prefer stable, predictable work arrangements. In such contexts, job rotation—which introduces uncertainty and change—may be perceived as threatening rather than developmental. This finding supports the cultural contingency perspective, which argues that HR practices must be adapted to local cultural contexts. In contrast, studies conducted in low uncertainty avoidance contexts (such as India and Nigeria) have found more positive responses to job rotation.

This finding also supports Grossman and Salas's (2011) argument that contextual factors—including perceived job security and organizational support—moderate the effectiveness of training delivery methods. In Yemen's unstable environment, where job security is a primary concern, methods perceived as destabilizing are less effective. This suggests that the effectiveness of training methods is not universal but is mediated by employees' perceptions of stability and security—a consideration that prior studies in stable contexts may have overlooked.

Development Programs and Succession Planning: A Theoretical Refinement

Development programs had a positive but relatively smaller effect on productivity compared to the other T&D dimensions. While this finding aligns with Ali's (2022) finding that career development programs are crucial for motivation and retention, the relatively smaller effect in this study requires theoretical explanation through Expectancy Theory.

According to Expectancy Theory, motivation is a function of expectancy (effort → performance), instrumentality (performance → rewards), and valence (value of rewards). This study's findings suggest that while employees value development opportunities (high valence), their instrumentality perceptions may be low—they do not strongly believe that participating in development programs will lead to tangible career advancement. The low rating for "Employee trainings offer opportunities for staff promotions" empirically validates the problem statement's concern about the absence of structured succession policies at YKB.

This finding supports Scandura and Williams's (2004) proposition that career development initiatives have stronger effects on job attitudes when coupled with clear advancement pathways. In the absence of such pathways, the motivational impact of development programs is attenuated. This study diverges from findings in India, where career advancement opportunities through training were more strongly linked to productivity because structured succession planning systems were already in place. This divergence highlights the interdependence between T&D and succession planning—T&D investments are most effective when embedded within a broader HRM system that includes clear career pathways.

This finding also contributes to refining Expectancy Theory by demonstrating that instrumentality perceptions (the belief that performance leads to rewards) are not only shaped by organizational reward systems but also by broader contextual factors such as political stability and economic uncertainty. In unstable contexts, employees may discount future career advancement opportunities regardless of their training participation because they perceive the future as uncertain.

PRACTICAL IMPLICATIONS

For practitioners in Yemen and similar resource-constrained environments, these findings suggest several actionable insights. First, training content relevance should be prioritized over training quantity, as the types of training programs have the strongest impact on productivity. Second, training methods should be selected with attention to employees' perceptions of stability—methods perceived as threatening (like job rotation) may require careful implementation and communication. Third, development programs must be explicitly linked to clear advancement pathways to maximize their motivational impact. Fourth, in the absence of formal succession planning, T&D can serve as a partial substitute, helping to identify and prepare high-potential employees even when formal systems are lacking. Fifth, bank managers should recognize that T&D effectiveness is context-dependent and should adapt their practices to the specific challenges of the Yemeni environment rather than simply importing practices from stable contexts. This aligns with the recommendations of Noe (2008), who emphasized that T&D systems should be designed with attention to both individual and organizational needs.

CONCLUSION

This study demonstrates the significant role of Training and Development (T&D) in enhancing employee productivity in banks, with specific application to Yemen Kuwait Bank in Sana'a, Yemen. The findings reveal that effective T&D, characterized by well-designed training programs, appropriate delivery methods, and comprehensive development initiatives, directly improves workplace productivity and indirectly through enhanced employee performance, job satisfaction, and contribution to organizational growth.

The study confirms that all three dimensions of T&D—types of training programs, training methods, and development programs—are significant predictors of employee productivity, with types of training programs emerging as the strongest contributor. This integrated approach to T&D fosters a more productive environment for banking professionals while enhancing overall organizational performance.

The study highlights the importance of combining well-designed training content with effective delivery methods and long-term development programs to achieve sustained productivity improvements, particularly in resource-limited settings like Yemen. For Yemen Kuwait Bank, investing in a strategic, well-structured, and continuously evaluated T&D system is not merely beneficial but essential for enhancing employee productivity, ensuring leadership continuity through effective development, and maintaining a competitive edge in a challenging market.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Despite the valuable insights this study offers, several limitations should be acknowledged. First, the research was conducted within a specific geographical context, focusing on the Sana'a branch of Yemen Kuwait Bank. As a result, the findings may not be entirely generalizable to other branches in different regions of Yemen or to other banks in the country. Future research could extend this study to a wider variety of banks and geographical locations within Yemen to increase the generalizability of the results.

Second, the study adopted a cross-sectional design, which is limited in its ability to establish causality. Longitudinal studies are recommended to further discover how T&D practices evolve over time and their long-term effects on employee productivity.

Third, the use of only self-reported data might introduce bias, as participants may overestimate their performance or the effectiveness of training programs. Future research could include objective performance measures or mixed methods approaches to validate the findings and provide a more detailed understanding of the relationships between T&D and productivity.

Fourth, while this research highlights T&D as a multidimensional predictor, other potential mediators and moderators such as employee engagement, organizational culture, or technological innovations could be explored in future studies.

Fifth, the study did not collect demographic data, which limited the ability to analyze differences in perceptions across gender, age, experience levels, or job positions. Future research should include demographic variables to examine whether the impact of T&D varies across different employee groups.

Finally, the unique context of Yemen—with its ongoing political instability and economic challenges—raises questions about the generalizability of these findings to more stable contexts. Future research could conduct comparative studies across countries with varying levels of stability to examine how context moderates the T&D-productivity relationship.

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