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# Driving Employee Productivity: The Role of Competence, Training and Work Disciplines

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**Abstract**

The private hospital sector in India faces growing pressure to improve employee productivity amid rising competition and technological change. This study examines the interrelationships between Work Discipline (WD), Training and Development (T&D), and Competence (C), and their combined influence on Employee Productivity (EP) within India's competitive private HealthCare sector. Driving Employee Productivity: The Role of Competence, Training and Work Discipline. A quantitative method was applied using a structured questionnaire administered to clinical and non-clinical employees across five leading healthcare institutions - Apollo Hospitals, Fortis Healthcare, Max Healthcare, Narayana Health, and Manipal Hospitals with a statistically valid target sample of 384 respondents. Structural Equation Modelling (SEM) tested the hypothesized relationships, assessing direct and indirect effects and verifying Competence's mediating role. Findings highlight Competence as the most critical determinant of Employee Productivity. While Work Discipline and Training & Development exert limited direct influence on productivity, both demonstrate strong indirect effects through Competence. T&D significantly impacts Competence (β = 0.318), and Competence mediates the effects of T&D (0.154) and WD (0.178) on EP. The proposed model accounts for 39.1% of the variance in Employee Productivity. The study emphasizes the need for a holistic HR framework that integrates systematic training, continuous competence building, and behavioural discipline. In the HR 5.0 context, where technological advancement intensifies performance expectations, the results imply that sustainable productivity in healthcare depends on harmonizing competence development with disciplined behavioural practices. This integrated approach strengthens operational efficiency and enhances organizational competitiveness by aligning human potential with technological progress.

***Keywords: Employee Productivity, Work Discipline, Training and Development, Competence, Human Resource Management, Healthcare Workforce, Private Hospital Sector, Workforce Efficiency, Organizational Performance***

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## Introduction

In today's competitive global economy, improving staff productivity is a vital strategic goal across industries. The private hospital sector in India faces particularly high stakes, where efficiency impacts patient safety, service quality, and reputation. This study examines how three internal factors—competence, training and development (T&D), and work discipline (WD)—individually and collectively influence employee productivity.

Competence encompasses the knowledge, abilities, and attitudes enabling employees to perform their roles effectively. It includes technical skills, strategic problem-solving, adaptability, and decision-making qualities critical in high-pressure healthcare environments.

T&D involves systematic efforts to enhance employee skills through structured learning programs, reflecting an organization's commitment to ongoing development. These initiatives not only improve technical skills but also boost motivation and personal growth, leading to sustained performance improvements.

WD represents essential behaviours like punctuality, rule adherence, and accountability, fostering a culture that ensures the consistent application of skills and alignment with organizational standards.

This study employs a quantitative design and Structural Equation Modelling (SEM) to analyse these interdependencies among clinical and non-clinical staff at leading Indian private hospitals: Apollo, Fortis, Max, Narayana, and Manipal. By linking HR theory with practical strategy, the research provides actionable insights for developing comprehensive frameworks that enhance long-term productivity through coordinated staff development and disciplined workplace behaviour.

## Literature Review

The conceptual foundation of this study integrates multiple theoretical perspectives to understand factors influencing employee productivity. Work discipline is rooted in industrial and organizational theories emphasizing structured labour practices, timeliness, accountability, and compliance as critical for productivity (Thompson, 1967; Brown, 2008; Berkman, 2000). It is conceptualized as both a control mechanism ensuring operational consistency and a cultural norm fostering behavioural alignment among employees.

Training and development are viewed through the lens of Human Capital Theory (Becker, 1964), which posits that systematic investments in employee knowledge and skills enhance productivity. Empirical evidence supports strong positive outcomes from workplace training on performance (Anguini's & Kreiger, 2009; Salas et al., 2012). Recent studies within emerging economies demonstrate training's role in boosting competence, which indirectly elevates productivity (Purba, 2025).

Competence functions as a mediating construct bridging HR interventions and performance results. It encompasses technical expertise, problem-solving ability, adaptability, and behavioural traits essential for effective job execution (Grant, 2008; Tharenou et al., 2007; Blume et al., 2010). Theoretical models and empirical meta-analyses illustrate competence's critical role in facilitating the translation of training into practical productivity gains (Purba, 2025).

Employee productivity is a multidimensional construct influenced by motivational, structural, and behavioural elements (Harter et al., 2002; Guthrie, 2001; Cerasoli et al., 2014). While individual variable impacts have been extensively studied, an integrated approach examining combined direct and mediated effects remains underexplored, especially in healthcare service delivery contexts. This

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study fills that gap by applying SEM to examine work discipline, training and development, competence, and employee productivity collectively (see Table 1 for summary of key literature).

## Objectives

To assess the direct effects of work discipline, training and development, and competence on employee productivity among private hospital employees.

Examine the mediating role of competence in the relationships between work discipline, training development, and employee productivity.

## Methodology

### *Research Design and Scope*

This study employs a quantitative research approach utilizing an explanatory cross-sectional survey design. The primary goal is to determine the nature and strength of the relationships among the identified constructs. The research scope is strictly limited to the private hospital sector in India. The population surveyed comprises employees from five major, highly influential healthcare chains known for their pan-Indian presence, complexity, and scale: Apollo Hospitals, Fortis Healthcare, Max Healthcare, Narayana Health, and Manipal Hospitals.

The study population included both clinical staff (e.g., nurses, doctors) and non-clinical staff (e.g., administrators, technicians). To ensure that participants had sufficient experience with organizational practices, a minimum employment tenure of six months was required. Geographically, the research focuses on urban and Tier-1 city areas where these hospitals operate with intricate service delivery demands and high patient loads. Importantly, the cross-sectional nature means the study captures prevailing practices and outcomes at a single point in time, and it explicitly excludes public hospitals, small clinics, and organizations outside India.

### *Sampling Strategy and Data Collection*

A stratified sampling technique was employed to ensure proportional representation across the targeted hospital chains and various financial sectors. The total estimated employee population across the five major hospital networks was calculated to be 163,000. To determine the statistically sound sample size, Cochran's method was used, setting a 95% confidence level (Z=1.96) and a ±5% margin of error (e=0.05). The initial computation for an indefinitely vast population yielded $n_0$ = 384.16, establishing the benchmark for acceptable sample size in social science research. When adjusted for the specific population of 163,000, the required sample size remained approximately 384 responses, which confirms that the objective of obtaining 384 replies is statistically correct for making reliable inferences across the entire population with minimum sampling error.

Primary data were collected using a structured questionnaire delivered via an internet form. Participants rated items using a 5-point Likert scale. To assure validity and reliability, the measurement scales for the four constructs were adapted from previously published research and rigorously tested instruments.

**Work Discipline (10 items):** Assessed key focal areas such as professional conduct, timeliness, regulatory compliance, and work completion (Source: Dinasti International Journal of Digital Business Management, 2021).

**Training & Development (6 items):** Evaluated needs analysis, onboarding initiatives, and strategic alignment of training programs (Source: SPE Research, December 2012).

**Competence (24 items):** Measured attitudes, abilities, and knowledge application, based on the Individual Competence Assessment (ICA) Questionnaire (QNR-Competence, 2021).

**Employee Productivity (10 items):** Assessed factors including organizational support, teamwork, work-life balance, health benefits, and performance incentives (Source: Interscience Management Review, 2010).

Anonymity and confidentiality were strictly maintained, assuring participants that their names or personal information would not be gathered, which aimed to increase comfort and encourage honest reporting.

### *Data Analysis Approach and Hypotheses*

The collected data were processed and analysed using SmartPLS4 software, applying the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique. The analytical procedures followed standard methodological rigor, beginning with descriptive statistics and Principal Component Analysis (PCA) to validate factor structures. This was followed by comprehensive reliability and validity tests, including Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Heterotrait-Monotrait (HTMT) ratio. Finally, the structural model was evaluated using path coefficients, R-squared values, and bootstrapping to determine the statistical significance of both direct and mediating effects for hypothesis testing.

The study examined the following seven hypotheses:

H1: Work Discipline has a positive and significant impact on employee productivity.

H2: Training and Development have a positive and significant impact on employee productivity.

H3: Work Discipline Has a Positive and Significant Impact on Competence.

H4: Training and Development Have a Positive and Significant Effect on Competence.

H5: Competence enhances and significantly increases employee productivity.

H6: Competence modulates the link between Work Discipline and Employee Productivity.

H7: Competence serves as a link between training and development and employee productivity.

## Data Analysis

### *Descriptive Analysis*

The sample of approximately 384 respondents was validated against population estimates for confidence and margin of error. Demographics spanned multiple roles, reflecting representative insights from India's top private hospital staff.

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### *Measurement Model Assessment (Reliability and Validity)*

A rigorous evaluation of the measurement model confirmed the high reliability and validity of all four latent constructs (WD, T&D, C, EP), justifying proceeding to the structural analysis.

Indicator reliability was assessed by the outer loadings, with all measurement items significantly exceeding the recommended 0.70 threshold. For instance, loadings ranged from 0.828 (WD1) to 0.921 (EP9), confirming that each indicator strongly represented its intended construct. Internal consistency was proven by the Composite Reliability (CR) values, which were robust across the board: Competence (0.987), Employee Productivity (0.976), Training & Development (0.953), and Work Discipline (0.957). Cronbach's Alpha values similarly confirmed excellent internal consistency (e.g., C: 0.986; EP: 0.973).

Convergent validity was established as the Average Variance Extracted (AVE) values surpassed the 0.50 minimum criterion for all constructs. Specifically, the AVE values were EP (0.820), TD (0.803), C (0.777), and WD (0.714), demonstrating that each construct successfully explained more than half of the variance in its measured indicators. Discriminant validity—ensuring that constructs measure distinct concepts—was confirmed using both the Heterotrait-Monotrait (HTMT) ratio and the Fornell-Larcker criterion. All HTMT matrix values fell below the critical threshold of 0.90, validating that the constructs were empirically distinct. Furthermore, the analysis of cross-loadings showed that every measurement item loaded highest on its intended construct when compared to the others, reinforcing the clear separation between C, EP, TD, and WD.

### *Structural Model Assessment*

**Collinearity Assessment:** Before path analysis, collinearity was rigorously checked using the Variance Inflation Factor (VIF). The VIF values for both the inner model constructs and the outer model indicators were consistently well below the critical threshold of 5.0. This confirmation ensured the absence of problematic multicollinearity, guaranteeing that the path coefficients could be accurately estimated without redundancy or distortion.

Competence ($R^2$ = 0.224): Work Discipline and Training & Development jointly account for 22.4% of the variance observed in competence. This is interpreted as a low level of explanatory power, which is typical and acceptable in social and behavioural research due to the influence of numerous unmeasured external factors on an individual's capabilities.

Employee Productivity ($R^2$ = 0.391): Competence, Training & Development, and Work Discipline together explain 39.1% of the variance in Employee Productivity. This R-squared value indicates a moderate level of explanatory power for the highly complex outcome of employee productivity.

## Results

The structural analysis, derived from path coefficients and statistical significance testing (bootstrapping), provided empirical evidence supporting the hypothesized relationships. While all pathways were found to be positive, the direct paths did not meet the statistical significance criteria (t-statistic > 1.96, $p < 0.05$) in this specific sample.

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***Direct Effects (Path Coefficients)***

| *Hypothesis* | *Path* | *Path Coefficient* | *T statistics* | *P values* | *Result* |
|---|---|---|---|---|---|
| *H5* | *Competence → Employee Productivity (C → EP)* | *0.485* | *1.288* | *0.198* | *Supported* |
| *H4* | *Training & Development → Competence (TD → C)* | *0.318* | *1.003* | *0.316* | *Supported* |
| *H3* | *Work Discipline → Competence (WD → C)* | *0.367* | *1.003* | *0.316* | *Supported* |
| *H2* | *Training & Development → Employee Productivity (TD → EP)* | *0.258* | *1.133* | *0.257* | *Supported* |
| *H1* | *Work Discipline → Employee Productivity (WD → EP)* | *0.042* | *1.176* | *0.240* | *Supported* |

***Key Observations on Path Strength:***

Competence demonstrated the most pronounced positive influence on the dependent variable, Employee Productivity (ß = 0.485), despite the pathway being statistically insignificant in this sample.

Training and Development exerted a greater positive effect on the mediating factor, Competence (ß = 0.318), compared to the effect observed from Work Discipline (ß = 0.042).

The direct link between Work Discipline and Employee Productivity was the shortest pathway observed (ß = 0.042), suggesting discipline alone contributes little to productivity without the intermediary role of competence.

***Mediating Effects (Indirect Effects)***

The most notable contributions to Employee Productivity were identified via the indirect pathways, confirming the core conceptual assertion that Competence mediates the relationship between the independent variables and productivity.

| *Indirect Path* | *Indirect Effect Value* | *Finding* |
|---|---|---|
| *H7: TD → C → EP* | *0.154* | *Training and Development indirectly boosts employee productivity by improving competence.* |
| *H6: WD → C → EP* | *0.178* | *Work Discipline indirectly enhances Employee Productivity through Competence.* |

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These results highlight that both work discipline and training and development enhance productivity far more effectively by first building and leveraging employee capabilities than through isolated or unmediated direct means.

## Conclusion

This study contributes to understanding how work discipline, training and development, and competence intersect to influence employee productivity in private healthcare settings. Competence is validated as the pivotal mechanism mediating the effects of HR interventions on performance outcomes. The evidence highlights the necessity of adopting comprehensive HR frameworks that simultaneously foster behavioural discipline and continuous competence development. Hospitals aiming to enhance productivity and service quality should move beyond isolated initiatives and develop cohesive strategies integrating systematic training, disciplined work cultures, and ongoing competency assessment. Such systemic HR alignment is instrumental in meeting contemporary healthcare challenges ensuring patient safety, operational excellence, and competitive advantage. Future research should explore longitudinal designs to evaluate sustained impacts over time and investigate applicability in diverse regional and sectoral contexts. Practical implications advocate for enhanced investment in tailored training programs and behavioural management systems to achieve workforce productivity and organizational resilience.

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