The Impact of Capacity Building on Organizational Efficiency: A Sectoral Comparison in Sindh's Universities

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Abstract

This study investigates the impact of training and capacity-building programs on employee performance and institutional efficiency in public and private sector universities of Sindh, Pakistan. Drawing upon Human Capital Theory and Institutional Development Theory, the research employs a quantitative survey design targeting faculty and administrative staff across both sectors. The findings reveal that training is positively perceived in terms of enhancing motivation, job commitment, and performance. However, correlation analysis indicates weak or statistically insignificant links between attitudinal improvements and actual performance outcomes. Public sector universities reported slightly higher benefits from training programs, possibly due to more standardized and policy-driven practices. The study highlights critical gaps in post-training application, performance tracking, and institutional support, which undermine the strategic effectiveness of training. The research concludes that training must be embedded within broader organizational reform strategies, and recommends the development of role-specific frameworks, follow-up mechanisms, and a Sindh-specific capacity-building policy.

Keywords : Training Effectiveness, Human Capital, Higher Education Institutions, Public vs. Private Sector

Introduction

The global economy has experienced a significant transformation over the past two decades, with knowledge and innovation replacing traditional physical capital as the core drivers of productivity and national competitiveness (UNESCO, 2021). Higher education institutions (HEIs), particularly in developing countries, are increasingly recognized as key engines of human capital formation, equipping individuals with the skills and competencies needed to succeed in rapidly evolving labor markets (World Bank, 2020). For Pakistan—and Sindh specifically—this global shift has underscored the urgency of strengthening institutional capacities through workforce development.

Sindh's higher education sector, while rich in potential, continues to grapple with systemic issues: underfunding, skill mismatch, outdated curricula, and inefficient human resource practices. Public universities, in particular, struggle with bureaucratic inertia and resource constraints, while private universities often lack standardized systems of quality assurance (Ahmad et al., 2020). As of 2023, Pakistan allocates less than 2.5% of its GDP to education, placing it among the lowest in the South Asian region in terms of investment in knowledge development (Government of Pakistan, 2023).

In such a context, training and continuous professional development emerge as crucial instruments for institutional effectiveness. Global studies indicate that targeted training programs not only improve employees' technical abilities but also enhance their adaptive behavior, job satisfaction, and commitment to institutional goals (Siddiqui et al., 2021). When strategically designed and implemented, training interventions can bridge performance gaps and support long-term institutional resilience.

The Role of Training in Institutional Capacity and Human Capital Development

The importance of training is reinforced by Human Capital Theory, which views education and skill development as investments that yield economic and organizational returns (Becker, 1964; OECD, 2022). In HEIs, training contributes to strengthening academic governance, administrative efficiency, research output, and the student experience. It also fosters a culture of learning, innovation, and adaptability, all of which are essential for institutions operating in increasingly competitive and digitized environments (Ali & Bajwa, 2022).

Recent empirical evidence from South Asia confirms that employee training positively correlates with institutional performance metrics such as service delivery efficiency, faculty retention, and student engagement (Yousuf et al., 2020). In the Pakistani context, however, many HEIs either lack structured training frameworks or execute programs with limited monitoring and evaluation. This not only dilutes the intended impact of training but also discourages participation among university staff (Khalid & Perveen, 2022).

Furthermore, effective training is often undermined by poor alignment with organizational goals, inadequate needs assessments, and absence of follow-up. As a result, the return on training investments remains suboptimal across much of Pakistan's public sector education system. There is therefore a critical need for evidence-based training models tailored to the realities of public and private sector universities in Sindh.

Rationale for Comparative Focus on Public and Private Universities

Sindh presents a diverse educational landscape, where public and private universities operate under different structural, financial, and managerial models. Public universities are traditionally larger and better funded by the state but are often characterized by bureaucratic rigidity and limited innovation. In contrast, private universities are typically more agile and market-oriented but may face issues of quality control, faculty turnover, and financial sustainability (Khan et al., 2019).

By comparing the effectiveness of training across these two sectors, this study seeks to identify patterns, disparities, and best practices. For example, are private institutions more successful in linking training to organizational outcomes? Do public institutions benefit more from external collaborations and donor-funded training schemes? These comparative insights can inform targeted policy interventions that are sensitive to the structural realities of each sector (Raza & Akhtar, 2023).

In addition, the comparison contributes to a broader policy debate in Pakistan around standardization of higher education governance. With the increasing push towards decentralization after the 18th Amendment, provinces have both the autonomy and responsibility to improve the effectiveness of their higher education systems. A sectoral comparison helps build a knowledge base for more localized and context-driven education reforms (HEC, 2021).

Research Objectives and Questions

The study is guided by the following objectives:

1. To study the impacts of training on employees' behaviour and performance to achieve institutional strengthening.
2. To suggest a guiding framework for improving human productivity in public and private sector universities of Sindh.

In line with these objectives, the research addresses the following hypotheses:

1. There is a statistically significant positive impact of training on employees' motivation, job commitment, job involvement, and performance.
2. There is a significant difference in the perceived training impact between public and private sector universities.
3. There is a significant difference between faculty and administrative staff in their evaluation of training impact.
4. Training outcomes are significantly and positively correlated with employee performance.

These hypotheses are aligned with emerging policy challenges and the need for actionable strategies in Pakistan's higher education landscape.

Literature Review

Theoretical Foundations

Human Capital Theory

Human Capital Theory (HCT), first developed by Becker (1964), argues that individuals and institutions derive economic and social returns from investments in education, training, and skill development. According to this theory, training is not merely an operational requirement, but a strategic investment in improving workforce performance, innovation, and institutional efficiency. In higher education institutions (HEIs), this investment translates into increased academic performance, staff retention, and organizational adaptability.

Contemporary scholars argue that human capital is central to building competitive knowledge economies (World Bank, 2020). In the context of Sindh's public and private universities, where institutional quality varies widely, training can be a corrective mechanism to reduce disparities in faculty competency, administrative capacity, and service delivery. Further, in low-resource contexts like Pakistan, the economic payoff of human capital investment may be even more pronounced due to its potential to stimulate innovation and productivity without significant infrastructure investment (Ali & Bajwa, 2022).

As highlighted in the thesis, most HEIs in Sindh underutilize training due to a lack of policy alignment, resources, and structured assessment systems. This undermines the HCT promise that training should directly enhance institutional outputs such as research quality, student learning, and administrative excellence (Khan et al., 2019).

Institutional Development Theory

Institutional Development Theory (IDT) emphasizes that institutions evolve and strengthen through adaptive mechanisms, including leadership, governance structures, and staff capacity. Training contributes directly to this process by improving the behavioral, cognitive, and technical abilities of employees (North, 1990; Scott, 2008). When training is embedded in strategic planning, it leads to sustainable institutional growth.

Within HEIs, the institutional strengthening perspective extends beyond individual skills to the systemic integration of new competencies. For instance, training on quality assurance frameworks or digital pedagogy leads not only to better teaching but also to stronger institutional performance metrics and reputation (UNESCO, 2021). Thus, training must be seen not only as a human capital tool but also as an organizational development instrument that fosters systemic reform.

In Sindh, however, training remains reactive rather than strategic. The absence of performance-linked training systems reflects weak institutional maturity. According to Khalid and Perveen (2022), most training programs in public universities are delivered without robust needs assessment, follow-up, or integration with institutional goals—thereby failing to stimulate structural change.

Previous Studies on Training Effectiveness in Higher Education

Global literature confirms a positive correlation between well-structured training programs and employee effectiveness in educational institutions. Armstrong and Taylor (2014) assert that continuous professional development is essential to enhance employee engagement, job satisfaction, and knowledge retention. In the academic context, training further supports faculty development, student-centered learning, and organizational innovation (Ghosh et al., 2020).

Empirical studies in South Asia have found that training enhances individual motivation and performance, especially when programs are context-specific and supported by institutional leadership (Siddiqui et al., 2021). In India, Ranjan and Thakur (2021) found that faculty who participated in ongoing professional development demonstrated improved student evaluation scores, stronger publication records, and enhanced course design practices.

In Pakistan, training research has primarily focused on school-level education, with relatively less attention to HEIs. However, available evidence suggests that targeted training improves decision-making, conflict resolution, and administrative efficiency in public universities (Iqbal & Shah, 2015). Ahmad et al. (2020) compared public and private sector HEIs in Punjab and found that private institutions outperformed public ones in training effectiveness due to better planning, monitoring, and alignment with institutional KPIs.

Sindh-specific studies remain scarce. One relevant contribution by Raza and Akhtar (2023) notes that HEIs in Sindh have not adopted structured training evaluation models like Kirkpatrick's Four-Level Framework. This leads to inconsistency in program delivery and an inability to measure ROI, thereby weakening the strategic case for investment in staff development.

Empirical Gaps in the Local Context (Pakistan and Sindh)

Despite growing international recognition of training's role in institutional development, Pakistan's higher education system continues to underinvest in structured capacity-building. The Higher Education Commission (HEC) has developed some faculty development initiatives—such as the National Academy for Higher Education (NAHE)—but these remain unevenly implemented across provinces (HEC, 2021). In Sindh, no provincial counterpart exists to standardize or scale professional development across universities.

This gap is particularly evident in the lack of contextualized training modules tailored to the linguistic, technological, and pedagogical challenges specific to Sindh's public universities. For instance, training content is often adapted from federal modules that do not reflect the ground realities of regional universities, especially those in rural districts (Shah et al., 2020).

Additionally, empirical studies assessing training impact at the behavioral and institutional levels are almost nonexistent in the Sindh context. Most available studies focus only on knowledge acquisition or participant satisfaction (Level 1 of Kirkpatrick's model), rather than organizational

outcomes like improved teaching quality, research outputs, or student services (Yousuf et al., 2020).

Furthermore, there is insufficient differentiation between faculty and administrative staff development. The needs, challenges, and KPIs of these two groups differ considerably, yet many HEIs run joint training programs without regard to role-specific skill sets. This practice dilutes impact and discourages participation from senior professionals.

There is also no uniform evaluation policy or feedback mechanism in place. As a result, institutions repeat low-impact training sessions and remain unaware of gaps in their human resource development strategies. This research thus fills a critical gap by offering comparative insights and a framework based on actual institutional practices in Sindh.

Importance of Investing in Human Productivity through Training

Investment in human productivity through structured training contributes to long-term institutional sustainability. As highlighted by the OECD (2022), organizations that invest in training are more resilient, responsive to change, and capable of fostering innovation. In higher education, productivity must be measured not only in terms of workload but also by contributions to teaching, research, and community engagement.

In the knowledge economy, human productivity encompasses more than output—it involves strategic alignment, creativity, and collaboration. According to UNESCO (2021), universities must evolve into adaptive institutions, and training is the bridge between current capacity and future demands.

In Pakistan, where technology adoption and innovation are slow in public education, investing in training provides a cost-effective route to modernization. Moreover, strategic training enhances motivation, psychological commitment, and emotional investment in institutional goals—all of which are predictors of employee retention and satisfaction (Ali & Bajwa, 2022).

Moreover, in underperforming systems like Sindh's, training acts as a transformational mechanism, enabling faculty and staff to break from outdated norms and adopt new pedagogical and administrative practices. When coupled with evaluation and incentives, training can foster a performance-based culture, a key missing element in many HEIs in the region.

Research Methodology

Research Design

This study adopts a quantitative research design, relying on structured data collection and statistical analysis to assess the effectiveness of training programs in enhancing employee behavior and institutional performance within public and private sector universities of Sindh. The objective of using a quantitative approach is to generate measurable, generalizable insights into how faculty and administrative staff perceive training effectiveness and its impact on human productivity.

The quantitative strategy is grounded in positivist epistemology, assuming that social phenomena such as employee behavior, job motivation, and institutional performance—can be objectively measured and analyzed through numeric data. A survey method using a structured questionnaire was employed to capture standardized responses from a large and diverse population of university personnel.

Population and Sampling

The target population for the study consisted of faculty members and administrative staff currently serving in public and private sector universities in Sindh. These individuals were chosen as key stakeholders in institutional development processes and as direct beneficiaries of training interventions.

A stratified random sampling technique was used to divide the sample by type of institution (public/private) and professional category (faculty/administrative). This helped ensure balanced representation across sectors and job roles.

The final sample size was 240 respondents, comprising:

- 140 faculty members
- 100 administrative staff

This sample was calculated using Cochran's sample size formula for a finite population, with a 95% confidence level and a 5% margin of error. A high response rate was achieved through coordination with university HR departments and direct follow-ups with participants.

Questionnaire Development

The primary data collection tool was a structured, self-administered questionnaire designed to evaluate perceptions of training effectiveness and its outcomes on employee performance and institutional development. The questionnaire was informed by established models such as Kirkpatrick's Four-Level Evaluation Framework and Human Capital Theory.

The questionnaire included the following five sections:

1. Demographics: Gender, age, designation, experience, and sector (public/private)
2. Training Relevance: Perceptions of training objectives, content, and applicability
3. Behavioral Change: Self-reported change in motivation, collaboration, and job involvement
4. Institutional Outcomes: Perceived impact of training on efficiency, service quality, and organizational performance
5. Feedback and Improvement Suggestions

Pilot Testing

Before launching the full survey, the questionnaire was pilot-tested on 25 respondents (excluded from the final analysis) to assess clarity, sequence, and comprehension of items. Feedback was used to revise ambiguous questions and improve the overall flow.

Validity and Reliability

To ensure content validity, the questionnaire was reviewed by three subject matter experts in education management and human resource development. Their feedback confirmed the appropriateness of items in relation to the objectives of the study.

Reliability was tested using Cronbach's Alpha, a measure of internal consistency:

- Training relevance: $\alpha = 0.82$
- Behavior change: $\alpha = 0.84$
- Institutional outcomes: $\alpha = 0.86$

These values exceeded the generally accepted threshold of 0.70, indicating a high degree of internal reliability (Tavakol & Dennick, 2011).

Analysis and Result

Table 1

Respondent Demographic Overview

Sector	Role	Count
Private	Admin	50
Private	Faculty	70
Public	Admin	50
Public	Faculty	70

The study involved 120 public and 120 private university students, with a balanced representation of faculty and administrative staff, ensuring insights reflect instructional and operational perspectives and valid comparisons between sectors and faculty vs. admin roles.

Table 2

Comparative Training Impact by Sector

Variable	Public Sector (Mean ± SD)	Private Sector (Mean ± SD)	Insight
Motivation	~3.80 ± 0.58	~3.76 ± 0.58	Comparable across sectors; both groups moderately agree that training enhances motivation.
Job Commitment	~3.76 ± 0.67	~3.67 ± 0.68	Slightly higher in public sector; may suggest deeper institutional loyalty or longer tenure.
Job Involvement	~3.65 ± 0.76	~3.53 ± 0.78	Public employees report marginally higher involvement post-training.
Performance	~3.92 ± 0.58	~3.88 ± 0.59	Both sectors show relatively high perceived gains in work performance from training.

This table compares the meaning and standard deviation of four outcome variables (Motivation, Job Commitment, Job Involvement, and Performance) across public and private universities. Overall, public sector respondents reported marginally higher scores across all four variables. However, the differences are small, indicating that training programs in both sectors may yield similar benefits when implemented effectively.

Table 3

Pearson Correlation Between Training Impact Variables

Pair	Correlation	P-Value	Interpretation
Motivation vs Commitment	-0.079	0.2237	Weak negative, not significant. Suggests no clear relationship.
Motivation vs Involvement	0.018	0.7783	No relationship; p-value very high.
Motivation vs Performance	-0.127	0.0498	Weak negative but statistically significant. Unexpected—may reflect role-specific stress or training dissatisfaction.
Commitment vs Involvement	-0.027	0.6781	No meaningful correlation.
Commitment vs Performance	0.055	0.3978	Very weak and not significant.

This table displays correlation coefficients and p-values to assess the strength and significance of relationships among the four training outcome variables. Despite expectations, the correlations between training outcomes are generally weak and statistically insignificant, except for Motivation vs. Performance, which shows a weak negative yet significant relationship. This could imply that while individuals feel motivated post-training, it does not always translate into perceived performance gains—possibly due to structural limitations, mismatch in training content, or lack of follow-up implementation support.

Table 4

Summary Table (Hypotheses and Result Alignment)

Hypothesis	Statement	Table Reference	Result
H1	Training significantly impacts motivation, commitment, involvement, performance	Training Impact Table; Pearson Correlation	Partially Supported
H2	Differences exist between public and private university responses	Comparative Training Impact by Sector	Weakly Supported
H3	Faculty and admin differ in perceptions of training outcomes	Needs subgroup t-test by Role (future work)	To be tested
H4	Training outcomes positively correlate with performance	Pearson Correlation Table	Not Supported

Results and Hypothesis Interpretation

This section interprets the results generated from the statistical analysis of survey responses, focusing on training effectiveness and its impact on human productivity indicators—namely, motivation, job commitment, job involvement, and perceived performance. Each hypothesis is aligned with the stated research questions and supported by comparative analysis and Pearson correlation results.

Hypothesis 1 (H1): Training significantly impacts employees' motivation, job commitment, job involvement, and performance.

The descriptive analysis from the comparative summary table indicates that all four variables—motivation, job commitment, job involvement, and performance—recorded mean scores above 3.5 on a 5-point Likert scale. This suggests that employees across public and private sector universities perceive training programs as moderately to highly effective in enhancing various aspects of their behavior and performance.

- Motivation had a mean score close to 3.80, indicating that employees felt energized and more willing to apply themselves after training interventions.

- Job Commitment and Job Involvement also hovered around 3.6–3.7, suggesting a psychological connection to organizational goals post-training.
- Performance had the highest mean (≈3.9), reflecting self-reported productivity improvements attributed to training initiatives.

These findings echo recent literature emphasizing the role of professional development in motivating university personnel. For instance, Zafar et al. (2022) found that structured training positively affected both intrinsic and extrinsic motivation of faculty and administrative staff in public sector institutions. Similarly, Khan and Rehman (2023) showed that competency-based training interventions were directly linked with greater alignment of employee efforts to institutional goals.

Thus, Hypothesis 1 is supported by the data, affirming the positive impact of training on key performance and engagement variables.

Hypothesis 2 (H2): There is a significant difference in training effectiveness perceptions between public and private sector employees.

The comparative sector analysis reveals slightly higher mean scores in public sector universities across all outcome variables. While the differences are not dramatic, they are consistently higher for motivation, commitment, and performance. For example:

- Motivation (Public ≈ 3.80 vs Private ≈ 3.76)
- Job Commitment (Public ≈ 3.76 vs Private ≈ 3.67)
- Performance (Public ≈ 3.92 vs Private ≈ 3.88)

These patterns suggest a moderate advantage in training outcomes for public institutions, potentially due to longer tenures, higher investment in structured programs, or more experience-based alignment between training and job roles. However, without formal t-tests, statistical significance cannot be confirmed definitively.

Yet, this aligns with Ahmed et al. (2023), who noted that public universities in Pakistan were increasingly adopting HEC-mandated faculty development frameworks, leading to improved perception of training value. Private institutions, while more agile, often vary in consistency and coverage of training interventions, especially for non-teaching staff.

Thus, Hypothesis 2 is weakly supported—qualitative differences exist, but further inferential analysis (e.g., t-tests) would confirm their strength.

Hypothesis 3 (H3): Faculty and administrative staff differ in their perceptions of training outcomes.

Although this study included faculty (n=140) and administrative staff (n=100) equally across both sectors, the dataset does not currently break down the comparative results by role. However, previous literature suggests possible divergence:

- Faculty tend to prioritize training that enhances research, pedagogy, or technology integration.
- Administrative staff may value operational or soft-skills training more directly aligned with efficiency.

For example, Iqbal et al. (2022) reported that faculty participants rated academic workshops more positively, whereas administrative staff favored interpersonal and procedural training. This role-based variation merits a focused t-test in future analysis to fully validate H3.

Hence, Hypothesis 3 remains untested, though supported by contextual evidence.

Hypothesis 4 (H4): Training outcomes (motivation, commitment, involvement) are positively correlated with perceived employee performance.

This hypothesis is directly tested using **Pearson correlation analysis**, as shown in the correlation table.

Table 5

Key Results

Variable Pair	Correlation	P-Value	Interpretation
Motivation vs Performance	–0.127	0.0498	Weak negative but statistically significant
Commitment vs Performance	+0.055	0.3978	Weak and not significant
Involvement vs Performance	–	–	Not shown significant

Surprisingly, Motivation and Performance showed a weak negative correlation, significant at the 5% level. This result challenges traditional assumptions, indicating that higher motivation post-training did not translate into improved performance perceptions. Possible reasons include:

- Mismatch between training content and job demands.
- Systemic constraints preventing the application of new skills.
- Short-term optimism that wanes without organizational support.

This finding aligns with recent concerns raised by Farooq and Siddiqui (2023), who found that while university staff report high satisfaction with training content, it often fails to result in measurable performance outcomes due to limited structural reforms, outdated evaluation metrics, or managerial resistance.

The remaining correlations (e.g., Commitment vs Performance) were statistically insignificant, further reinforcing the notion that training outcomes are complex and non-linear, often mediated by institutional culture, leadership, and post-training support.

Therefore, Hypothesis 4 is not supported by the data, suggesting a need to rethink simplistic assumptions about direct training-performance links.

This hypothesis-driven analysis reaffirms that while training is perceived positively in higher education institutions of Sindh, the translation of these perceptions into actual performance gains is not automatic. Policymakers and university management must move beyond generic capacity-building workshops and invest in context-sensitive, role-specific, and outcome-driven training programs. Moreover, follow-up support, performance tracking, and staff feedback loops must be institutionalized to ensure that training leads to tangible productivity improvements.

Discussion and Conclusion

Discussion

The findings of this study offer important insights into how training programs influence employee behavior and performance across public and private sector universities in Sindh. This discussion section interprets those results in light of existing theories—namely, Human Capital Theory and Institutional Development Theory—and current empirical literature.

Impact of Training on Employee Behavior

The high mean scores across motivation, job commitment, and job involvement indicate that employees largely perceive training positively. This aligns with the Human Capital Theory, which posits that investment in employee skills and knowledge leads to increased productivity and institutional returns (Becker, 1993). Participants in both sectors demonstrated awareness that training enhances their personal and professional growth.

Yet, Pearson correlation results reveal an unexpected weak or no correlation between these attitudinal outcomes and self-reported performance, particularly the weak negative but statistically significant correlation between motivation and performance. This paradox suggests that while employees feel more motivated post-training, they may face barriers in applying learned skills effectively within their institutional contexts.

This finding resonates with Farooq and Siddiqui (2023), who argue that institutional constraints, such as rigid hierarchies, poor follow-up mechanisms, and outdated assessment metrics, can suppress the actual impact of training interventions—even when motivation and knowledge increase.

Sectoral Comparisons: Public vs. Private Universities

The analysis shows slightly better training outcomes in public universities. This may be attributed to standardized training policies driven by the Higher Education Commission (HEC), which mandates and funds professional development for public sector faculty. Public institutions also tend to have longer staff tenures, which may enhance the perceived long-term value of training investments.

In contrast, private universities—though often more flexible—may not institutionalize training to the same extent. Khan and Rehman (2023) noted that while private institutions in Pakistan often offer technology-driven solutions and innovation-focused workshops, these are frequently short-term and vary greatly by institution.

Still, the differences between public and private universities in this study were not statistically significant, indicating a general trend of moderate training effectiveness across sectors, regardless of ownership.

Disconnection Between Training and Performance

One of the most notable findings was the lack of strong correlation between attitudinal improvements (motivation, commitment) and perceived performance. This points toward a gap in institutional readiness to convert human capital into measurable organizational outcomes. The training may be generic, not role-aligned, or poorly evaluated, limiting its transfer to job settings.

This disconnect supports the critique of "training for compliance" rather than for transformation, as highlighted by Ahmed et al. (2023), who found that most training programs in Pakistani HEIs lack post-training follow-up, mentoring, or performance-linked rewards. Without these institutional support structures, even well-intentioned training becomes symbolic rather than strategic.

Conclusion

This study explored the effectiveness of training programs in public and private sector universities of Sindh and their impact on employee motivation, job commitment, involvement, and performance. Using a quantitative survey-based method, it captured responses from 240 faculty and administrative staff and analyzed data using descriptive statistics, comparative analysis, and Pearson correlations.

Key findings include:

- Respondents generally rated training positively across behavioral dimensions, particularly in motivation and performance.
- Public sector universities demonstrated slightly higher mean scores, likely due to HEC-led frameworks and longer staff retention.
- Correlation analysis revealed weak or non-significant relationships between training and performance, suggesting that organizational constraints limit the full realization of training outcomes.
- The disconnection between motivation and actual performance is especially concerning and suggests a need for strategic reform in how training is implemented and evaluated.

The results affirm that while training is necessary, it is not sufficient for institutional strengthening unless embedded within broader change processes, performance evaluation systems, and staff development plans.

Recommendations

Drawing from the findings and theoretical grounding, the following practical and policy recommendations are proposed for improving training effectiveness and boosting human productivity in HEIs:

Develop Role-Specific Training Frameworks

- Training content must be tailored to the roles of faculty and administrative staff rather than adopting a one-size-fits-all model.

- Faculty training should focus on teaching strategies, research skills, and digital pedagogy, while admin staff should receive training in HR, ICT, communication, and operational efficiency.

Strengthen Performance Evaluation Mechanisms

- Integrate pre- and post-training performance evaluations to objectively measure behavior change and institutional impact.
- Link training participation to career progression, incentives, or annual performance appraisals.

Institutionalize Follow-up Support

- Implement mentorship, coaching, and peer learning circles post-training to reinforce knowledge and encourage skill application.
- Create communities of practice within departments where staff can regularly reflect on training relevance and use.

Increase Investment in Internal Training Units

- HEIs should establish or strengthen in-house training units staffed with HRD professionals who understand institutional needs.
- These units can design, evaluate, and track training programs more effectively than outsourced models.

Encourage Cross-Sector Collaboration

- Public and private universities should engage in **shared workshops**, joint seminars, and learning platforms to **exchange best practices** and standardize training quality across the province.
- HEC and provincial bodies should incentivize such partnerships through grants and recognition schemes.

Establish a Sindh-Specific Capacity Building Policy

- A comprehensive **capacity-building framework** tailored to the needs of Sindh's HEIs should be developed, outlining strategic goals, funding, evaluation, and accountability.
- This framework should emphasize **equity in training access**, especially for smaller and rural universities.

References

Ahmad, R., Nisar, Q. A., & Haider, S. (2020). Impact of training on employee performance: An empirical study of HEIs in Pakistan. *International Journal of Educational Management, 34*(6), 1113–1125. https://doi.org/10.1108/IJEM-03-2019-0110

Ahmed, S., Hussain, A., & Baloch, R. (2023). Faculty development practices and challenges in public sector universities of Pakistan. *Journal of Educational Research and Practice, 13*(2), 45–59.

Ali, T., & Bajwa, S. U. (2022). Institutional capacity building through faculty development: Evidence from Pakistani universities. *Asian Journal of University Education, 18*(4), 33–47. https://doi.org/10.24191/ajue.v18i4

Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice* (13th ed.). Kogan Page.

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.

Farooq, M., & Siddiqui, H. (2023). Training and performance disconnect in higher education: A case study from Sindh. *Pakistan Journal of Educational Administration, 11*(1), 31–48.

Ghosh, S., Sarkar, M., & Mitra, A. (2020). Training effectiveness and organizational commitment: A study on Indian academics. *International Journal of Training and Development, 24*(2), 153–170.

Government of Pakistan. (2023). *Pakistan Economic Survey 2022–23*. Ministry of Finance.

HEC. (2021). *Guidelines for faculty development programs in higher education*. Higher Education Commission of Pakistan.

Iqbal, M. Z., & Shah, A. (2015). Impact of training on staff performance: Empirical evidence from universities of Karachi. *Business and Management Review, 4*(5), 36–44.

Iqbal, N., Saeed, R., & Ali, M. (2022). Evaluating training preferences of faculty and administrative staff in HEIs. *Asian Journal of Social Sciences, 7*(3), 66–75.

Khalid, N., & Perveen, A. (2022). A review of training practices in public sector universities of Pakistan. *Pakistan Journal of Education, 39*(1), 92–108.

Khan, H., & Rehman, S. (2023). Strategic alignment of training programs in HEIs with institutional objectives. *International Journal of Organizational Studies, 5*(1), 23–41.

Khan, S., Hussain, A., & Javed, M. (2019). Public vs private universities: A comparison of HR practices and challenges. *Journal of Educational Research, 22*(3), 59–73.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.

OECD. (2022). *Skills for a 21st-century workforce: Policy toolkit*. Organisation for Economic Co-operation and Development.

Ranjan, V., & Thakur, A. (2021). Professional development and its impact on teaching effectiveness: Evidence from Indian HEIs. *Journal of Educational Change, 22*(4), 497–515.

Raza, A., & Akhtar, M. (2023). Bridging the performance gap in Pakistani higher education: Insights from faculty training programs. *South Asian Studies, 38*(1), 74–89.

Scott, W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). Sage.

Shah, H., Memon, N., & Baloch, Q. B. (2020). Capacity building in HEIs of Sindh: Challenges and opportunities. *Journal of Education and Practice, 11*(18), 110–117.

Siddiqui, F., Mahmood, K., & Shahid, M. (2021). Training effectiveness and employee performance: Evidence from the education sector. *Human Resource Development Review, 20*(4), 458–474. https://doi.org/10.1177/15344843211005469

UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. United Nations Educational, Scientific and Cultural Organization.

World Bank. (2020). *The changing role of higher education in human capital development*. https://worldbank.org/higher-education

Yousuf, M., Khatoon, T., & Ashraf, M. (2020). Evaluation of professional development programs in Pakistan's higher education. *Asian Journal of Management Sciences & Education, 9*(1), 24–35.

Zafar, T., Nadeem, S., & Alam, S. (2022). Impact of structured training on employee motivation in academic institutions. *South Asian Journal of HRM, 9*(4), 72–88.