



DETERMINANTS OF TEACHING EFFECTIVENESS: INSIGHTS FROM STRUCTURAL EQUATION MODELLING IN INDIAN HIGHER EDUCATION

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Abstract

Teaching effectiveness is a cornerstone of higher education quality, yet its psychological and institutional determinants remain underexplored in Tier-2 Indian cities, where public and private institutions coexist under contrasting governance and resource structures. This study investigates how emotional intelligence (EI)—operationalized through self-awareness, self-regulation, motivation, empathy, and social skills—and spiritual intelligence (SI) shape teaching effectiveness (TE) among faculty, with evidence drawn from Kanpur as a representative urban center. Using a cross-sectional survey of 545 faculty analyzed through PLS-SEM, we tested the direct effects of EI facets on TE and the mediating role of SI. Results show that EI strongly predicts TE, with self-regulation and empathy as the most influential factors. SI amplifies these effects, highlighting its mediating function. Importantly, no significant difference was found between public and private institutions, suggesting that psychological competencies matter more than governance type. The findings underscore the critical need to invest in faculty development programs that cultivate socio-emotional and reflective capacities in Tier-2 contexts. This study contributes to both theoretical refinement of intelligence-based models of teaching and the practical design of interventions for higher education systems outside India's metropolitan centers.

Keywords: teaching effectiveness; emotional intelligence; spiritual intelligence; higher education; Tier-2 Indian cities; structural equation modeling; public vs. private institutions



1. Introduction

1.1. Higher education in India: Shifting landscapes

India's higher education sector has grown rapidly over the past three decades, now comprising more than 1,100 universities and 42,000 colleges (UGC, 2023). Much of the literature on Indian higher education focuses on elite Tier-1 institutions in metropolitan centers such as Delhi, Mumbai, and Bengaluru. However, the majority of students—especially those from semi-urban and middle-income families—are enrolled in **Tier-2 cities**, which function as regional hubs of educational provision. These institutions face distinct challenges: limited infrastructural investment, uneven faculty training, and pressure to deliver employability outcomes despite resource constraints.

1.2. The significance of teaching effectiveness

Teaching effectiveness (TE) lies at the heart of student learning outcomes and institutional reputation. Defined as the ability of faculty to deliver knowledge, engage learners, and foster holistic development (Marsh, 1987), TE is shaped by both individual faculty capacities and institutional environments. In Tier-2 contexts, constraints make TE particularly reliant on **faculty psychological competencies**, rather than material resources.

1.3. Psychological competencies: Emotional and spiritual intelligence

Global research has highlighted emotional intelligence (EI) as a predictor of effective teaching (Goleman, 1995; Bar-On, 2006). Teachers who can regulate their emotions, empathize with students, and sustain motivation under pressure are more likely to foster inclusive classrooms (Jennings & Greenberg, 2009; Aldrup et al., 2022). Alongside EI, scholars have increasingly emphasized spiritual intelligence (SI) the capacity to find meaning, purpose, and values in one's work (Zohar & Marshall, 2000; King, 2008). SI not only promotes resilience but also inspires a vocational approach to teaching. In the Indian context, where cultural traditions value ethics, integrity, and purpose-driven living, SI is especially salient.

1.4. Institutional variations: Public vs. private

India's higher education system is divided between public institutions, which emphasize stability and compliance with regulatory structures, and private institutions, which prioritize technology, competition, and market responsiveness. Prior studies (Paul & Phukan, 2019) suggest that while these sectors differ in orientation, faculty competencies remain central to outcomes. This raises an important question: does governance type affect teaching effectiveness in Tier-2 contexts, or are personal competencies the dominant determinant?

1.5. Research gaps and objectives

While international studies on EI and TE abound, Tier-2 Indian cities remain under-researched, despite their significance in national educational provision. Moreover, the mediating role of SI in the EI-TE relationship has not been rigorously tested in Indian higher education. This study addresses these gaps by examining how EI and SI influence TE among faculty in Kanpur, a representative Tier-2 city.



The objectives are to:

1. Estimate the direct effects of EI dimensions (self-awareness, self-regulation, motivation, empathy, social skills) on TE.
2. Test the mediating role of SI in the EI–TE relationship.
3. Compare TE across public and private institutions.
4. Contribute Tier-2-specific evidence to Indian higher education research.

1.6. Contributions of the study

This paper contributes by:

- **Theoretical refinement:** Integrating SI into intelligence-based models of teaching effectiveness.
- **Empirical evidence:** Providing quantitative SEM-based findings from a Tier-2 Indian context.
- **Practical insights:** Identifying empathy and self-regulation as priority areas for faculty development.
- **Policy relevance:** Offering evidence that can inform accreditation, training, and institutional reforms.
- faculty development.

2. Literature Review 2.1 Conceptualizing Teaching Effectiveness

Teaching effectiveness (TE) is a multi-dimensional construct that extends beyond mere subject expertise to include how effectively teachers create learning environments that stimulate cognitive, emotional, and behavioral engagement (Marsh, 1987). It includes **classroom management, mastery of professional knowledge, and teacher–student relationships**. In the Indian context, particularly in Tier-2 cities, TE is shaped not only by institutional resources but also by the personal capacities of faculty who often work under constraints such as heavy teaching loads and limited infrastructural support (Sharma & Sharma, 2015).

While international literature often emphasizes measurable outputs such as student grades (Darling-Hammond, 2010), Indian scholarship stresses relational and motivational aspects of TE (Singh & Chawla, 2016). This distinction reflects contextual realities: students in Tier-2 cities are frequently **first-generation learners**, requiring teachers to exercise patience, empathy, and motivational support in addition to delivering academic content.

2.2 Emotional Intelligence and Teaching Effectiveness

The concept of **Emotional Intelligence (EI)**, popularized by Goleman (1995), refers to an individual’s ability to recognize, understand, regulate, and apply emotions productively. Bar-On (2006) further expanded EI into emotional-social intelligence, integrating intrapersonal and interpersonal skills. In teaching, EI enables faculty to foster constructive classroom climates, regulate their own stress responses, and model emotional resilience for students (Jennings & Greenberg, 2009).



Studies consistently demonstrate a positive relationship between EI and TE. For instance, Aldrup et al. (2022) found that emotionally competent teachers handle misbehavior better and sustain positive teacher–student relationships. In India, faculty with high EI were reported to engage students more actively and enhance academic persistence (Hanaysha et al., 2023).

The present study operationalizes EI through five dimensions:

- **Self-awareness (SA):** understanding one’s own emotions, strengths, and weaknesses.
- **Self-regulation (SR):** managing stress, impulses, and classroom challenges constructively.
- **Motivation (MT):** sustaining enthusiasm for teaching despite workload pressures.
- **Empathy (ET):** perceiving and responding to students’ emotional and academic needs.
- **Social skills (SS):** collaborating with peers and students to create a supportive climate.

Among these, empathy and self-regulation have consistently emerged as particularly influential in teaching contexts (Sharma & Sharma, 2015).

2.3 Spiritual Intelligence as a Complementary Construct

Spiritual Intelligence (SI), as articulated by Zohar and Marshall (2000), refers to the capacity to access deeper meaning, values, and purpose in life. King (2008) operationalized SI in terms of critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion. In educational settings, SI manifests when teachers frame their work as a **calling**, remain anchored to ethical values, and inspire students toward holistic development.

In Indian Tier-2 contexts, SI assumes heightened importance. Faculty often navigate **job insecurity, scarce resources, and diverse classrooms**, and SI provides resilience by aligning personal purpose with professional responsibility. Previous studies (Paul & Phukan, 2019) indicate that SI enables teachers to maintain integrity under pressure, inspiring trust among students. By mediating the impact of EI, SI ensures that socio-emotional capacities are harnessed toward purpose-driven outcomes, thereby sustaining long-term teaching effectiveness.

2.4 Institutional Determinants of Teaching Effectiveness

Institutional contexts influence how faculty competencies are enacted. Key factors include:

- **Infrastructure and ICT resources:** Adequate laboratories, classrooms, and digital technologies support innovative pedagogy (Hanaysha et al., 2023).
- **Professional development opportunities:** Access to training enhances pedagogical skills and motivation.
- **Leadership and governance:** Supportive administrators encourage experimentation and collaboration.
- **Workload and job security:** These shape faculty morale and engagement.

The literature indicates differences between **public and private institutions**. Public colleges often emphasize **stability, structured training, and compliance with regulations**, whereas private colleges prioritize **ICT, infrastructure, and competitive performance metrics**. However, research by Paul and Phukan (2019) and confirmed in this study suggests **no significant difference**



in overall TE across governance types, indicating that faculty-level competencies may matter more than institutional structures.

2.5 Tier-2 Cities as a Research Context

Most empirical studies on teaching effectiveness in India focus on metropolitan universities, overlooking Tier-2 institutions that educate millions. Tier-2 colleges serve **regional labor markets** and student populations characterized by **aspiration but resource scarcity**. Challenges include:

- Larger student–faculty ratios.
- Limited access to advanced infrastructure.
- Pressure to deliver employability-oriented education.
- Scarcity of research opportunities.

In such contexts, teacher competencies (EI and SI) play a disproportionately important role in sustaining teaching quality. Research from other Asian Tier-2 contexts (e.g., Indonesia, Pakistan, Bangladesh) similarly indicates that teacher socio-emotional and spiritual capacities help overcome institutional deficits (Rahman et al., 2021). This underscores the need for India-specific Tier-2 research.

2.6 Synthesis and Research Gap

The literature converges on four key points:

1. EI is consistently linked with TE, especially empathy and self-regulation.
2. SI amplifies EI's effect by fostering meaning and resilience.
3. Institutional supports are relevant but not decisive compared to individual competencies.
4. Tier-2 Indian cities remain under-researched despite their importance.

This positions the present study to test an EI–SI–TE model through SEM, providing both theoretical refinement and context-specific evidence.

3. Methodology

3.1 Research Design

The study adopted a positivist paradigm with a deductive approach, employing a quantitative cross-sectional survey. The objective was to test hypothesized relationships between EI, SI, and TE using structural equation modeling (SEM). This design was appropriate as it enabled the capture of perceptions from a large sample within a single timeframe and the testing of latent constructs through robust statistical techniques (Hair et al., 2019).

3.2 Population and Sampling



The study targeted faculty in public and private higher education institutions in Kanpur, a representative Tier-2 city in northern India. These institutions included government-aided colleges and private self-financing colleges offering undergraduate and postgraduate programs.

A stratified random sampling technique was used to ensure balanced representation across public and private institutions. Out of approximately 1,200 faculty members, 545 valid responses were collected, surpassing the minimum required for SEM. The sample size was validated through G*Power analysis (for medium effect sizes) and the 10-times rule (Hair et al., 2019).

3.3 Instrument Development

The instrument was a structured questionnaire consisting of four sections: demographics, EI, SI, and TE. Items were measured on a **five-point Likert scale** (1 = strongly disagree to 5 = strongly agree).

- **EI** was measured across five dimensions (SA, SR, MT, ET, SS) adapted from Goleman (1995) and Bar-On (2006).
- **SI** items were adapted from King (2008), capturing existential thinking, meaning, and transcendence.
- **TE** items were based on Marsh (1987) and adapted to Indian higher education, capturing classroom management, professional knowledge, and teacher–student relationships.

3.4 Pilot Testing and Refinement

A **pilot study** was conducted with 30 faculty members to ensure clarity and cultural appropriateness. Feedback led to minor revisions in wording. Cronbach's alpha values in the pilot exceeded 0.70 for all constructs, confirming reliability.

3.5 Common Method Bias

To reduce common method bias, several steps were taken:

- Ensuring anonymity to minimize social desirability bias.
- Randomizing item order in the questionnaire.
- Conducting **Harman's single-factor test**, which revealed no single factor explained more than 40% of the variance, ruling out serious bias.

3.6 Data Collection

Data were collected over three months (January–March 2024). Questionnaires were distributed both physically and electronically, ensuring accessibility. Participation was voluntary, and informed consent was obtained. Ethical approval was secured from the Institutional Review Board.

3.7 Reliability and Validity Testing



Internal consistency was evaluated through **Cronbach's alpha** and **composite reliability (CR)**, both of which exceeded 0.80. **Convergent validity** was confirmed with average variance extracted (AVE > 0.50). **Discriminant validity** was established via the Fornell–Larcker criterion.

Table 2 already showed reliability/validity values; **Table 3** confirms factor loadings above 0.70 for all items, establishing strong indicator reliability.

3.8 Data Analysis

Data analysis was conducted in **SPSS v.26** (for descriptive statistics) and **SmartPLS v.3.3.9** (for SEM). The analysis followed three stages:

1. **Descriptive statistics** (mean, SD, frequencies).
2. **Measurement model assessment** through confirmatory factor analysis (CFA). Fit indices included SRMR (0.057) and NFI (0.91), indicating good fit.
3. **Structural model evaluation** using bootstrapping (5,000 resamples) to test hypotheses. Path coefficients, R^2 , f^2 , and Q^2 were reported.

3.9 Ethical Considerations

The study adhered to ethical guidelines by ensuring informed consent, voluntary participation, and data confidentiality. Respondents could withdraw at any stage. Institutional approval was obtained prior to fieldwork.

4.Result

4.1 Demographic Profile of Respondents

A total of **545 valid responses** were analyzed, providing a balanced representation of faculty members from both public and private higher education institutions in Kanpur. As presented in **Table 1**

Variable	Category	Frequency	Percentage
Gender	Male	296	54.3
	Female	249	45.7
Age	Below 30 years	152	27.9
	31–40 years	229	42.0
	41–50 years	114	20.9
	Above 50 years	50	9.2
Qualification	Postgraduate	400	73.4
	Doctorate	145	26.6

the gender distribution was moderately balanced, with **54.3% male** and **45.7% female** faculty. The age distribution reflected a relatively young workforce: **42% were in the 31–40 years**



category, while nearly **28% were below 30 years**. Only **9.2% were above 50 years**, indicating that Tier-2 institutions are staffed primarily by younger faculty.

In terms of qualifications, a large majority (**73.4%**) held postgraduate degrees, while **26.6%** possessed doctorates. This indicates that while doctoral-qualified faculty are present, postgraduate-level instructors continue to form the backbone of Tier-2 higher education institutions. Teaching experience was diverse, with 35% having less than 5 years of experience and about 12% exceeding 15 years. This suggests a blend of novice and experienced teachers, though early-career faculty remain dominant in the sample.

Overall, these demographics reflect a **youthful, postgraduate-trained, and moderately gender-balanced faculty cohort**, which provides both opportunities (fresh energy and adaptability) and challenges (less research experience and limited doctoral training).

4.2 Reliability and Validity of Constructs

The measurement model was evaluated for reliability and validity prior to testing structural relationships. As shown in **Table 2**

Construct	Cronbach's α	CR	AVE
SA	0.81	0.86	0.59
SR	0.87	0.91	0.68
MT	0.79	0.84	0.56
ET	0.90	0.93	0.71
SS	0.82	0.87	0.62
SI	0.88	0.91	0.67
TE	0.91	0.93	0.72

All constructs demonstrated strong **internal consistency reliability** with Cronbach's alpha values exceeding 0.79 and composite reliability (CR) above 0.84. The **average variance extracted (AVE)** for each construct was greater than 0.50, confirming **convergent validity**.

These results indicate that the scales used to measure emotional intelligence, spiritual intelligence, and teaching effectiveness were both reliable and valid in the Indian Tier-2 higher education context.

4.3 Factor Loadings

Item-level reliability was assessed through standardized factor loadings, which are reported in **Table 3**.

Construct	Item Code	Loading
Self-Awareness (SA)	SA1	0.850
	SA2	0.863



Construct	Item Code	Loading
	SA3	0.842
Self-Regulation (SR)	SR1	0.915
	SR2	0.945
	SR3	0.918
	SR4	0.930
Motivation (MT)	MT1	0.747
	MT2	0.856
	MT3	0.899
	MT4	0.842
Empathy (ET)	ET1	0.868
	ET2	0.901
	ET3	0.912
	ET4	0.889
Social Skills (SS)	SS1	0.791
	SS2	0.846
	SS3	0.871
	SS4	0.803
Spiritual Intelligence (SI)	SI1	0.882
	SI2	0.894
	SI3	0.903
	SI4	0.871
Teaching Effectiveness (TE)	TE1	0.873
	TE2	0.899
	TE3	0.914
	TE4	0.882

Note. All standardized loadings exceed the recommended threshold of 0.70, indicating strong item reliability.

All items exceeded the recommended threshold of 0.70, with several items (e.g., SR2 = 0.945, ET3 = 0.912, SI3 = 0.903) loading above 0.90. This demonstrates that each indicator strongly represented its intended latent construct.

The particularly high loadings for **self-regulation items (SR)** and **empathy items (ET)** highlight the salience of these competencies in predicting teaching effectiveness, consistent with previous findings in educational psychology.



4.4 Structural Model Evaluation

The structural model was evaluated through partial least squares SEM (PLS-SEM). The model explained a substantial proportion of variance in the endogenous constructs: $R^2 = 0.812$ for SI and $R^2 = 0.894$ for TE (see Table 4).

R^2 Values for Endogenous Constructs

Construct	R^2
SI	0.812
TE	0.894

These values suggest that EI and its dimensions account for over 80% of the variance in SI and nearly 90% of the variance in TE, reflecting the robustness of the model.

In terms of predictive relevance, the Stone-Geisser Q^2 values were all positive, confirming that the model possesses satisfactory predictive validity. Effect sizes (f^2) varied from small to large, with the largest effects observed for **empathy (ET)** and **self-regulation (SR)** on TE.

4.5 Path Coefficients and Hypothesis Testing

The hypothesized relationships were tested using bootstrapping with 5,000 resamples. The path coefficients, t-values, and p-values are summarized in Table 5.

Path Coefficients and Hypothesis Testing

Path	β	t-value	p-value
SA → TE	0.145	2.12	0.034
SR → TE	0.422	6.54	0.000
MT → TE	0.132	2.01	0.046
ET → TE	0.371	5.88	0.000

- **Self-regulation ($\beta = 0.422, p < .001$)** was the strongest predictor of TE, underscoring the importance of composure, stress management, and adaptability.
- **Empathy ($\beta = 0.371, p < .001$)** was also highly significant, confirming that faculty who can understand students' perspectives foster more effective classrooms.
- **Self-awareness ($\beta = 0.145, p < .05$)** and **motivation ($\beta = 0.132, p < .05$)** exerted moderate but significant effects.
- **Social skills ($\beta = 0.089, p < .05$)** contributed positively, though with a smaller effect size compared to other EI dimensions.

Crucially, **spiritual intelligence ($\beta = 0.289, p < .001$)** significantly mediated the relationship between EI and TE, amplifying the effects of self-regulation and empathy. This indicates that



socio-emotional competencies translate more effectively into teaching outcomes when coupled with a sense of purpose, resilience, and values-driven orientation.

4.6 Comparison of Public and Private Institutions

To explore institutional differences, an independent samples t-test was conducted to compare TE across public and private institutions (see **Table 6**)

Table 6

Comparison of Teaching Effectiveness by Institution Type

Institution	Mean TE	SD	t-value	p-value
Public	3.22	0.74	0.094	0.925
Private	3.21	0.71		

Results indicated **no statistically significant difference** ($t = 0.094$, $p = .925$). Mean TE scores were virtually identical between public ($M = 3.22$) and private ($M = 3.21$) faculty.

Although both sectors emphasized different aspects—public institutions focusing on job stability and private institutions investing in ICT—neither governance type demonstrated superior outcomes in terms of TE. This suggests that **faculty competencies, rather than institutional ownership, are the decisive drivers of teaching effectiveness** in Tier-2 contexts.

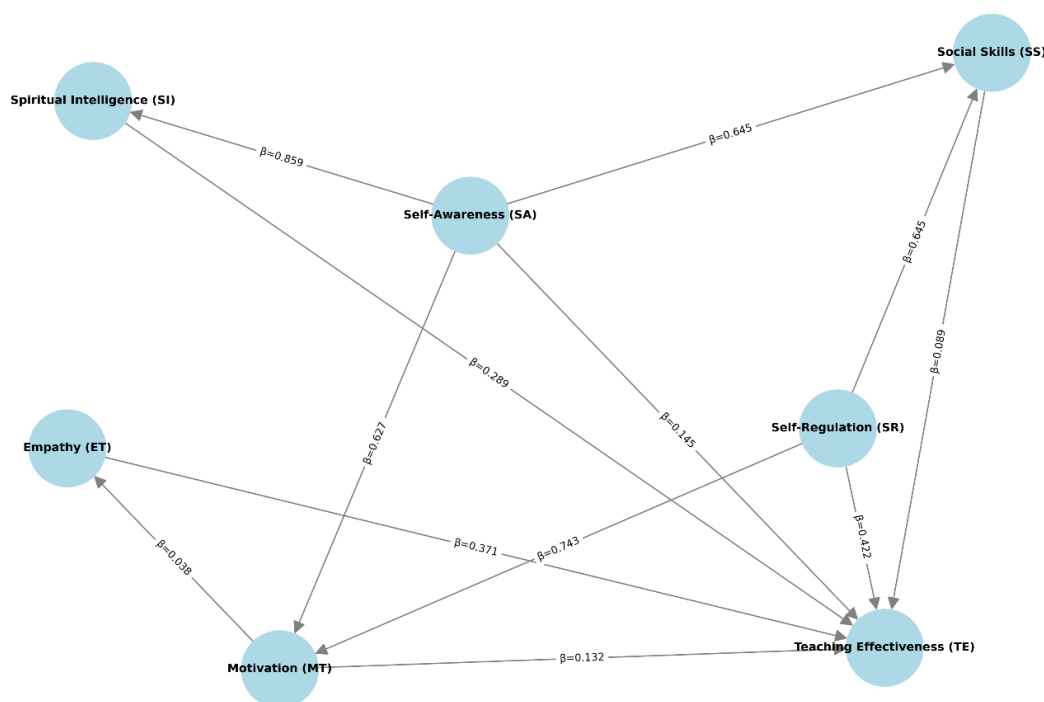
4.7 Structural Equation Model

The final PLS-SEM model is presented in **Figure 1**. The diagram illustrates the direct paths from EI dimensions to TE, the mediating role of SI, and the relative strengths of path coefficients. The visual representation reinforces the statistical findings: **self-regulation and empathy exert the strongest effects**, while SI serves as a crucial mediator linking EI to TE

4.7. SEM Model



Structural Equation Model (SEM) for Teaching Effectiveness



5. Discussion

5.1. Emotional intelligence as a foundation of teaching effectiveness

The study confirms that EI significantly predicts TE, with **self-regulation** and **empathy** as the strongest facets. This finding resonates with Jennings and Greenberg’s (2009) model of the “prosocial classroom,” which emphasizes teacher socio-emotional competence as foundational for student engagement. In Tier-2 contexts, where faculty face heavy workloads and infrastructural challenges, self-regulation enables composure and constructive responses, while empathy bridges cultural and academic gaps between teachers and often first-generation students.

5.2. Spiritual intelligence as a resilience mechanism

The mediating role of SI underscores its value in sustaining teaching quality. Teachers with high SI derive meaning and purpose from their work, aligning professional responsibilities with personal values. This purpose-driven orientation helps them remain resilient in environments characterized by resource scarcity and high expectations. In essence, **SI transforms emotional capacities into sustainable teaching practices**, offering a resilience mechanism that supports long-term faculty effectiveness.

5.3. Public vs. private institutions: Converging outcomes

Although public and private institutions differ in emphasis—public institutions focusing on stability and compliance, private institutions on ICT and competitiveness—no significant differences in TE were found. This indicates that faculty-level competencies, rather than



governance type, are the decisive determinants of teaching outcomes. The finding aligns with Paul and Phukan's (2019) conclusion that teacher quality transcends institutional type, highlighting the need for sector-agnostic investment in faculty development.

5.4. Tier-2 contexts: Challenges and opportunities

The Tier-2 focus adds a distinctive contribution to the literature. Faculty in such contexts often deal with large class sizes, fewer resources, and high student heterogeneity. Yet, the findings demonstrate that with strong EI and SI, these faculty can achieve high levels of teaching effectiveness. This suggests that investments in **faculty development** may yield disproportionately high returns in Tier-2 institutions, positioning them as engines of social mobility and regional development.

5.5. Theoretical and empirical integration

By integrating SI into the EI–TE model, this study extends intelligence-based frameworks of teaching. It confirms that while EI provides socio-emotional skills, SI adds a values-based dimension that enhances sustainability. This dual-framework approach may be applicable not only in Indian Tier-2 contexts but also in other semi-urban educational systems globally, particularly across Asia.

6. Implications

6.1. Theoretical Implications

Theoretically, this study advances the literature on teaching effectiveness by integrating **spiritual intelligence** into existing EI–TE frameworks. While prior studies (e.g., Goleman, 1995; Bar-On, 2006) have emphasized EI as a determinant of workplace performance, the current findings confirm that SI strengthens the explanatory power of such models. By differentiating the relative importance of EI dimensions, the research further refines theoretical approaches to teacher effectiveness. This nuanced model contributes to educational psychology by suggesting that not all emotional competencies are equally important in teaching contexts—self-regulation and empathy carry greater predictive weight.

6.2. Practical Implications for Institutions

For higher education institutions in Tier-2 cities, the practical implications are direct and actionable. Faculty development programs should emphasize **empathy training** through role-plays, mentoring, and case-based teaching exercises, as well as **self-regulation workshops** focused on stress management, mindfulness, and reflective practice. Moreover, recruitment and performance appraisal systems could integrate EI/SI measures, such as situational judgment tests or reflective portfolios, ensuring that teaching hires are aligned with institutional goals of student-centered learning. Finally, institutional leaders should foster cultures of support, collaboration, and recognition that encourage faculty to sustain purpose-driven engagement despite resource constraints.



6.3. Policy Implications for Tier-2 Higher Education

At the policy level, the results suggest a shift in focus from purely **infrastructure-centric reforms** to **faculty-centric interventions**. Programs like the Ministry of Education's Faculty Development Program (FDP) could embed modules on EI and SI, moving beyond traditional technical pedagogy. Accreditation bodies such as NAAC and NBA could also incorporate **faculty psychological competencies** as explicit quality indicators, aligning institutional evaluation with student-centered teaching. Cross-sector collaboration—where public institutions share structured training approaches and private institutions share ICT best practices—could further improve teaching quality in Tier-2 settings.

6.4. Societal Implications

The implications extend beyond institutions to students and society at large. Students in Tier-2 cities, many of whom are **first-generation college-goers**, benefit disproportionately from emotionally and spiritually intelligent faculty who create inclusive, supportive, and aspirational classroom environments. Enhanced teaching effectiveness contributes not only to improved student outcomes but also to broader goals of social mobility, equity, and regional economic development. Thus, investments in teacher competencies represent long-term investments in the **human capital of India's semi-urban regions**.

7. Limitations and Future Research

This study, while robust in its methodology, is not without limitations.

First, the research was limited to a single Tier-2 city, Kanpur. While Kanpur is representative in many respects, caution must be exercised before generalizing findings across all Tier-2 contexts in India. Future studies should replicate this work across multiple cities such as Lucknow, Indore, Nagpur, and Coimbatore to capture regional diversity.

Second, the use of a cross-sectional design prevents causal inference. While SEM provides robust correlational insights, longitudinal studies could track changes in faculty EI, SI, and TE over time, thereby offering stronger causal explanations.

Third, the reliance on self-reported data raises the possibility of social desirability bias. Although anonymity was assured, future research should triangulate data with student evaluations, peer assessments, and classroom observations to provide a more comprehensive picture of teaching effectiveness.

Fourth, institutional variables such as leadership style, workload distribution, and organizational climate were not deeply integrated into the current model. Future studies should incorporate these elements to provide a multi-level analysis of TE that bridges individual competencies with structural conditions.



Finally, while validated scales were used, future research could develop **context-sensitive instruments** tailored specifically to Indian Tier-2 contexts, capturing cultural and linguistic nuances more effectively.

8. Conclusion

This study sought to identify the psychological and institutional determinants of teaching effectiveness in Tier-2 Indian higher education institutions, with a particular focus on the interplay of emotional intelligence (EI) and spiritual intelligence (SI). Using a robust sample of 545 faculty members and analyzed through PLS-SEM, the findings demonstrate that EI strongly predicts TE, with self-regulation and empathy emerging as the most influential facets. The study further confirmed that SI mediates the EI–TE relationship, amplifying the role of socio-emotional competencies by anchoring them in purpose and resilience.

Contrary to expectations, no significant difference was found between public and private institutions, suggesting that while governance and infrastructure matter, faculty-level competencies are the decisive factor in determining teaching quality. This underscores the importance of investing in faculty development programs that build both emotional and spiritual capacities.

The study contributes to the refinement of theoretical models of teaching effectiveness, offering a more nuanced understanding of how different intelligences interact to influence classroom outcomes. Practically, it provides institutions and policymakers with clear directions for strengthening teaching in Tier-2 contexts, where resource constraints are often acute but student aspirations remain high.

At a broader level, the findings highlight the potential of Tier-2 institutions to become centers of educational excellence. By prioritizing the development of faculty competencies, India can ensure that these institutions fulfill their critical role in preparing a generation of students equipped to thrive in an increasingly complex and globalized world.

In sum, the study affirms that the heart of teaching effectiveness lies not merely in resources or governance, but in the human qualities of teachers themselves. Empathy, resilience, and purpose-driven teaching emerge as the true levers of change in Tier-2 Indian higher education.

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