

Exploring the factors of learning organization in school education: the role of leadership styles, personal commitment, and organizational culture

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Abstract

Purpose – This study aims to test the conceptual model of the factors of learning organization and explore the degree of mediation of organizational culture in the relationship between leadership styles, personal commitment, and learning organization in school education.

Design/methodology/approach – The learning organization profile (LOP) and OCTAPACE profile served to measure learning organization and organizational culture, respectively. The researchers developed scales to measure principals' leadership styles and teachers' personal commitment. Data included 750 school teachers.

Findings – This study found a good fit in the proposed conceptual model. The organizational culture had a significant mediating effect on the path of leadership styles and learning organization and a significant mediating effect on the path of personal commitment and learning organization.

Originality/value – To promote a more comprehensive learning culture, school principals should consider two specific organizational mechanisms: the intangible cultural components (such as corporate values, beliefs, and norms) and the tangible structural components (such as organizational structure and workflow systems). These two domains play a crucial role in creating a conducive learning environment.

Keywords Learning organization, Leadership styles, Organizational culture, Personal commitment, School education

Paper type Research paper

Introduction

The twenty-first century learning methods and strategies differ from those of the twentieth century. People who can possess, mend, and utilize knowledge successfully will move on from being just knowledge-transferring bodies and take this world to the next level. While there is widespread agreement among educational stakeholders on the urgent need to improve school systems worldwide, the specific challenges faced in crafting and implementing effective improvement policies vary by country (Filardo, 2016). For instance, in India, despite efforts to enhance the education system, persistent challenges remain in developing and executing policies that address the unique needs of Indian schools. Although the term “K-12” is often used in reference to the American and Canadian education systems, this concept closely resembles the primary and secondary schooling structure in India, where the focus on foundational reforms is equally critical. While various school improvement strategies have



been pursued at the federal, state, and local levels, the effectiveness and equity of student achievement outcomes require more attention (Welsh, 2019). In this era, modernizing learning and creating efficient educational institutions is a significant challenge for all educators, as they are meant to prepare students for life. This progression in educational institutions calls for a conducive culture, influential leaders, and personal commitment of all stakeholders, who must seriously consider various changes for the institution's effective functioning. Transformation will occur in an institution, only if authorities address students' and educators' needs. Educators are equipped with comprehensive knowledge about the structuring of educational institutions, the factors that contribute to the enhancement of learning outcomes, the essential student experiences, and the prerequisites for implementing meaningful transformations.

Scholars have directed considerable toward studying learning organizations and their associated concepts (Stothard, 2020; Schechter, Qadach, & Da'as, 2021; Welsh, Williams, Bryant, & Berry, 2021). However, although there is a growing body of research in this area, much of the evidence supporting the effectiveness of learning organizations is still primarily based on anecdotal accounts (Stothard, 2020). Myran and Sutherland (2018) revealed that educational leadership and administration lack a clear and operational definition of learning, which leaves the field vulnerable to varying perspectives on learning. Although many institutions are transforming into learning organizations and various researchers are theorizing about the phenomenon, it remains to be investigated whether learning organizations is related to measurable benefits for institutions and employees. This suggests that existing publications may not have unveiled substantial findings, leading researchers to refine their focus. Our study focuses on the leadership styles of school principals, teachers' personal commitment, and their impact on schools as learning organizations. More specifically, the following research question guided this study:

RQ1. Do the leadership styles of principals, teachers' personal commitment, and schools' organizational culture contribute to building learning organizations?

There has been an upsurge in interest in looking at schools as learning organizations, where teachers and administrators engage in continuous understanding and knowledge sharing as part of reform efforts to promote education and improve schools.

We aimed to achieve the following research goals:

- (1) Evaluate the conceptual model regarding the factors of a learning organization.
- (2) Examine the impact of organizational culture as a mediator between teachers' personal commitment and learning organization.
- (3) Analyze the role of organizational culture in mediating the relationship between leadership styles and learning organization.

This article is organized into several key sections to comprehensively address the research objectives. First, we present a detailed literature review that explores the concept of a learning organization, the role of organizational culture, and how leadership styles influence the development of learning organizations. Following this, we introduce our conceptual model and hypotheses, focusing on the factors that contribute to a learning organization and the mediating role of organizational culture. The methodology section outlines the research design, sample selection, and data collection techniques employed to test these hypotheses. In the analysis section, we use empirical data to evaluate the relationships between teachers' personal commitment, leadership styles, organizational culture, and learning organization outcomes. Finally, we conclude with a discussion of the findings, implications for educational institutions, and suggestions for future research.

Literature review

Learning organization

Scholars define a learning organization as “an organization which facilitates the learning of all its members and continually transforms itself” (Pedler, Burgoyne, & Brook, 2005). Robbins (1996) defined a learning organization as one that has the ability to continuously adapt and evolve. Senge (2006) further elaborated that learning organizations involve individuals who continuously enhance their capacity to achieve their desired outcomes, cultivate innovative and holistic ways of thinking, and unleash collective aspirations. This entails a collective effort to gain a comprehensive understanding of the organization as a whole. Effective leadership plays a crucial role in academic institutions that prioritize learning. Educational leaders must possess management expertise, emotional intelligence, and supportive behavior to encourage collaboration and innovation and effectively address complex issues (Zakaria, Nasir, & Akhtar, 2019). Academic leaders with visionary personalities play a crucial role in fostering a culture of learning and continuous improvement through a shared vision, systems thinking, and team learning, thereby driving academic institutions to excel academically and adapt effectively to challenges and changes (Cinnioglu, 2020). Based on the five disciplines of learning organizations by Senge (2006), Pareek and Purohit (2010) have developed eight characteristics of learning organizations. They include a holistic frame, strategic thinking, shared vision, empowerment, information flow, emotional maturity, learning, and synergy. The detailed description of the characteristics is given in Table 1.

Table 1. Description of eight characteristics of learning organization by Pareek and Purohit (2010)

Holistic frame	A holistic approach to organizational dynamics involves systems thinking, pattern recognition, long-term considerations, systematic problem-solving, root cause analysis, critical assumptions examination, and boundary workers utilization
Strategic thinking	Strategic thinking refers to a cognitive approach characterized by the preparation of sequential action plans, anticipation of consequences and implications, prioritization of critical variables, readiness to discontinue unprofitable or irrelevant units/activities, reframing information strategically, differentiating policy, strategy, and operations, providing support at multiple levels, and fostering a culture of sharing and soliciting feedback on strategy across all organizational levels
Shared vision	Shared vision is a collaborative process that involves active participation, connecting it with individual goals, inspiring top leadership, effectively communicating it to stakeholders, securing commitment, solidifying it through concrete actions, fostering a creative culture, and cultivating transformational leadership practices
Empowerment	Empowerment is a strategic approach that promotes autonomy, involvement, and ownership within an organization by fostering clear direction, trust, and effective decision-making
Information flow	Information flow in organizational dynamics involves transparent sharing of critical information, promoting open communication, minimizing rumors, establishing formal channels, promoting internal idea exchange, and utilizing information for informed decision-making
Emotional maturity	Emotional maturity is a psychological development characterized by control over destiny, optimism, self-discipline, commitment, moderate risk-taking, clear goals, self-confidence, responsibility, delayed gratification, calculated risk-taking, and ambiguity tolerance
Learning	Learning is a dynamic process that values self-development, encourages interdisciplinary collaboration, fosters openness, and rewards flexibility, ultimately leading to knowledge acquisition, skill enhancement, and overall growth
Synergy	Synergy is the cohesive integration of individuals and efforts, characterized by empathy, collective thinking, decision-making, open dialogue, process attention, coordinated action, consensus building, and cross-functional teams

Source(s): Own elaboration

Schools as learning organizations

More scholars, educators, and policymakers are advocating for reimagining schools as learning organizations. They believe school organizations are the best at handling changing external environments, facilitating change, innovation, and even effectiveness, such as improved student learning outcomes and other vital outcomes (Fullan, 1995; Stoll & Fink, 2003; Gandolfi, 2006; Giles & Hargreaves, 2006; Schlechty, 2009; Senge, 2014). As a learning organization, school uses processes of environmental scanning, develops shared goals, establishes collaborative teaching and learning environments, encourages initiative and risk-taking, reviews all aspects of school work regularly, recognizes and reinforces good work, and offers opportunities for further professional development (Silins, Zarins, & Mulford, 1998). Schools become a learning organization by developing processes, strategies, and structures that enable them to adjust to uncertain and dynamic environments effectively and learn from them. To revise their existing knowledge, these schools institutionalize learning mechanisms. The emergence of a learning organization is unlikely without such mechanisms (Schechter & Mowafaq, 2013). As schools become learning organizations, they exhibit an ongoing professional development program, a tendency to take risks, honest cooperation, a shared vision, and monitoring and assessment (Paletta, 2011).

Personal commitment, organization culture, and learning organization

Firestone and Rosenblum (1988) advocate that “teachers may be committed to teaching, their schools, or their students and that their patterns of behavior vary depending upon which commitments are assessed.” They further concluded that the area of focus – whether it be teaching, the school environment, or the students – seems to flourish wherever the teacher is committed. The dropout rate would reduce if teachers contributed to the student’s personal development and maintained an affectionate and conducive learning environment. Kushman (1992) explored commitment to students, which encompasses teacher efficacy, high expectations, and organizational commitment, and its causes and consequences. To assess personal commitment, we look at the collective form of goal, time, and plan commitment (Martinsuo & Turkulainen, 2011). Fostering meaningful change requires everyone at school to be personally committed to valuing, respecting, and understanding each other. If the person promoting change does not live by the principles they are encouraging, it weakens the process’ credibility (Kendrick, 2001). Teachers’ personal commitment is a collective commitment toward students’ self-development and organizational development (Kareem & Srikantaswamy, 2014). Teachers’ personal commitment is crucial for schools to become learning organizations as their success depends, in part, on the teachers (Mulford, 1998). Teacher agency is not just about individual capacity or ability, but it is achieved within specific ecological conditions and circumstances. It is the teacher’s ability to act on their beliefs and ideas within their unique work settings (Biesta, Priestley, & Robinson, 2017). Teacher agency embedded in specific ecological conditions is crucial for shaping educational practices within learning organizations. Biesta *et al.* (2017) emphasize that teachers’ discourse significantly influences their agency, reflecting concerns about the shift towards exam-focused education and the undervaluation of personal growth. The commitment level of teachers, encompassing commitment to teaching, schools, and students, has a direct relationship with student outcomes, such as reduced dropout rates, improved personal development, and the creation of an affectionate and conducive learning environment. Thereby, this influences schools’ transformation into effective learning organizations (Reese, 2020; Cinnioğlu, 2020). From the above arguments, we hypothesized:

H1. School teachers’ personal commitment directly influences schools as learning organizations.

Learning culture in the organization plays a crucial role in shaping employee trust, justice, and extra-role behavior, highlighting its significance in achieving desired employee behavior

(Wahda, Mursalim, Fauziah, & Asty, 2020). In their work, Peterson and Deal (2009) defined school culture as an implicit framework of norms, values, beliefs, rituals, and traditions that collectively shape the unspoken guidelines for thinking, feeling, and behaving within an organization. School culture encompasses norms, behaviors, and values that guide interactions in faculty meetings, professional development, student socialization, curriculum instruction, and testing, focusing on autonomy and student learning. As learning organizations, schools have a supportive and innovative culture because the executives working in that environment exhibit higher levels of learning organization than other existing cultures (Pool, 2000; Azeem, Mataruna-Dos-Santos, & Abdallah, 2020). School culture encompasses the unique identity and values that characterize every educational institution worldwide, with various research studies investigating the challenges associated with shaping and defining such cultures (Niemann & Kotzé, 2006; Ferreira & Hill, 2007). Developing a learning culture in an organization is crucial for both employees and organizations because culture should enable effective knowledge transfer processes, which are essential for business practices' long-term success and are primarily associated with effective learning organizations (Lau, Lee, & Chung, 2019). Establishing effective learning strategies and cultivating learning cultures are essential for responding to the changing needs of organizational development. In a study on understanding perceptions, researchers have found that learning organizations play a significant role in the relationship between organizational culture and affective commitment (Lau, McLean, Hsu, & Lien, 2017). A study evidenced the importance of employees' commitment to building a healthy learning organization (Beauregard, Lemyre, & Barrette, 2019). Based on the literature reviewed, we can conclude that teachers' personal commitment is vital for fostering a supportive learning culture in educational institutions for nurturing learning organizations. Therefore, we hypothesized that a positive correlation exists between teachers' personal commitment and the development of organizational culture in schools, which helps create an enhanced learning organization.

- H2. Organizational culture significantly mediates the relationship between personal commitment and the learning organization.

Leadership style, organization culture, and learning organization

Leadership is a process in which a person exerts influence over a group of individuals to achieve a broad goal (Northouse, 2003). Burns (1978) established two concepts of leadership styles, i.e. transformational and transactional. Silins *et al.* (1998) assert that transformational school leaders prioritize educational restructuring and innovation by fostering a shared vision, promoting collaborative participation, and empowering followers to lead. Agosto and Roland (2018) conducted a comprehensive review of educational leadership, with a primary focus on transformative leadership. They concluded that while intersectionality is a growing area of interest in educational leadership, its application remains underdeveloped and primarily centers on individuals' leadership experiences and capacity, rather than actionable leadership practices. Transformational leaders in educational institutions will motivate and impact others through their helping behavior, which researchers consider to be prosocial in educational institutions (Yada & Jäppinen, 2018). According to Silins *et al.* (1998), transformational school leaders focus on driving educational restructuring and innovation by emphasizing the importance of building a shared vision, encouraging collaboration, and empowering followers to take on leadership roles. A study found that the more people demonstrate transformational leadership in academic libraries, the more develops a positive learning organization, according to the dimensions of transformational leadership, such as idealized attribute, idealized behavior, inspirational motivation, intellectual stimulation, and individual consideration (Mufeed & Mir, 2013). In a research study on the perception of transformational leadership by school principals using the multifactor leadership questionnaire, scholars noted that teachers preferred principals who exhibited high levels of transformational leadership, indicating a strong need for this leadership style in schools (Hauserman & Stick, 2013). Educational

leaders have to trust that teachers can learn and grow, otherwise, they will never get the opportunity to grow (Hess, 2019). According to teachers and staff members, transformational leadership – characterized by building a shared vision, promoting collaborative participation, empowering followers, and demonstrating prosocial behavior – positively correlates with the development of a positive learning organization.

H3. The principal's transformational leadership style will directly influence schools as learning organizations.

As noted by Bush (2020), in the realm of educational administration, the leadership style that aligns best with the political model is transactional leadership. It involves an exchange process, as defined by Miller and Miller (2001), and focuses on equitable resources distribution (Judge & Piccolo, 2004). As highlighted by Ghasemy, Hussin, Abdul Razak, Maah, and Ghavifekr (2018), in educational institutions, transactional leadership helps establish a positive exchange process between leaders and followers. Noteworthy, according to this leadership style, the exchange process is a legitimate political tactic used by organization members (Ghasemy *et al.*, 2018). Nazim and Mahmood (2016) found a significant relationship between the transactional leadership styles of principals and the teachers' job satisfaction. According to teachers and staff members, in educational institutions operating under a political educational administration model, transactional leadership – characterized by an exchange process and a focus on the proper allocation of resources – positively correlates with the development of a positive learning organization.

H4. The principal's transactional leadership style will directly influence schools as learning organizations.

Principals can erect distributed leadership in schools involving teacher leaders and assistant principals (Devos, Tuytens, & Hulpia, 2014). Raes *et al.* (2012) examined leadership styles contributing to good team-learning behavior. To foster a learning organization, the principal's leadership style should provide teachers with agency and enable their active participation in discussions related to the institution's meaning and goals as well as relevant decision-making processes, ensuring that their voices and viewpoints are not only heard but valued (Aydogmus, Metin Camgoz, Ergeneli, & Tayfur Ekmekci, 2016; Kõiv, Liik, & Heidmets, 2019). Organizations that use leadership effectively are likelier to foster a desire for a shared vision, personal mastery, and methodical collaboration (team learning). When a company's culture aligns with either the clan or task type, it can facilitate a shared vision and systematic collaboration among colleagues (Chang & Lee, 2007). Since organizational culture is a crucial contextual element that can either foster or impede organizational learning (Yang, Wang, & Niu, 2007), it is essential to consider the deep-rooted culture within a company when developing learning organization activities (Chang & Lee, 2007). Empowering teachers through leadership and fostering a broader appreciation of the teaching profession in a society can develop a shared vision and personal mastery among teachers, creating an environment where they share an ordinary meaning to their work and feel valued as independent professionals (Kõiv *et al.*, 2019).

The leadership style significantly influences the culture of a learning organization, both directly and indirectly, by influencing creativity and innovation inside the institution. In this setting, the culture of creativity and innovation acts as a moderator in the link between leadership style and the general culture of the learning organization, enhancing the influence of leadership on organizational development. (Azeem, Mataruna-Dos-Santos, & Skibinska, 2019; Azeem *et al.*, 2020). The essential elements of a school as a learning organization include vision, innovation, experimentation, knowledge acquisition and transfer, action research, empowerment, and leadership commitment. In contrast, a learning organization displays specific features that promote a learning culture and create a conducive space or setting for learning (Alharbi, 2021). Transformational leadership involves a principal's ability to transform the school culture and community by working toward a shared vision that

transforms individuals, institutions, and cultures from their current state to where they want to go, with an emphasis on building a culture of students and teachers who believe in their capacity and control to effect change (Metz, Piro, Nitowski, & Cosentino, 2019). Based on the literature reviewed, we can conclude that principals’ transformational and transactional leadership styles are vital for fostering a supportive learning culture in educational institutions to foster the operation of learning organizations. Therefore, we hypothesized that a positive correlation exists between the principal’s leadership style and the development of organizational culture in schools, leading to an enhanced learning organization.

H5. Organizational culture significantly mediates the relationship between leadership style and learning organization.

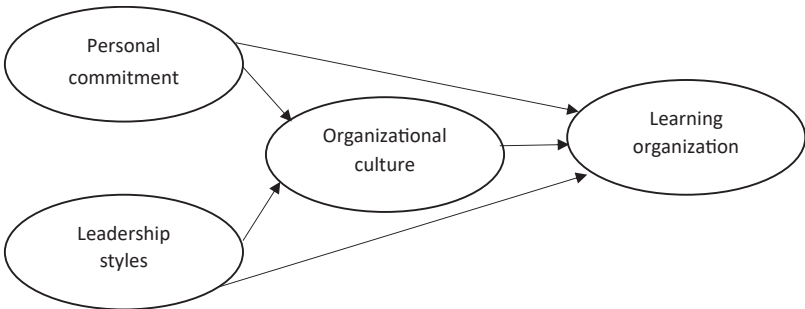
Research design and method

Research structure

This research investigated mainly the relationship between school teachers’ commitment, principals’ leadership style, organizational culture, and the operation of learning organizations in schools. Based on thorough research and careful coordination of our research motives and goals, the research structures presented in Figure 1 reflect the most effective approach. Our research structures focused on the operation of learning organizations, which formed the core of our research topics. First, we investigated the operation of learning organizations affected by school teachers’ organizational culture and commitment. Second, we explored the operation of learning organizations affected by the transformational leadership style followed by principals of schools and organizational culture.

Procedure

We conducted this study in Bengaluru, the capital of the state of Karnataka, the educational hub of India, due to the city’s broad presence in all disciplines and its research contributions (Joshi, 2014). We adopted the survey method to collect data from the primary source, i.e. school teachers. Participation in the survey was voluntary. We administered questionnaires manually by personal visits to the schools. We acquired special permission from the respective school management before administering the questionnaire. The total data collected by the survey amounted to 750 responses. It took seven months to collect the responses. The study questionnaire had 121 statements overall. It took approximately 40 to 45 minutes for each respondent to complete all the responses. We kept all responses confidential.



Source(s): Own elaboration

Figure 1. Conceptual model of study

Sample

The study included school teachers from various types of schools in Bengaluru (Urban), ranging from kindergarten to higher secondary levels. To participate in the survey, we required teachers to have spent at least one year in the same organization. We collected data using a convenient, stratified probability sampling technique that divided the population based on school types. The breakdown of data revealed that 31.5% of the participants were government teachers, 31.9% were private-aided teachers, and 36.6% were from private unaided schools. Please refer to [Table 2](#) for a detailed respondents' profile.

Measures

Organization culture. [Pareek \(2002\)](#) devised the OCTAPACE culture profile, which is a framework that comprises eight steps to cultivate a functional ethos rooted in the organization's core values. The OCTAPACE profile comprises 40 element instruments. Scholars have extensively utilized it in empirical studies conducted in India to examine organizational culture across diverse sectors such as banking, education, public sector organizations, FMCG consumer industry, information technology, tourism, BPO, and manufacturing organizations ([Fatima, 2020](#)). The OCTAPACE profile ([Pareek & Purohit, 2018](#)) served to measure organizational culture. It has eight dimensions. There are five dimensions, i.e. pro-action, authenticity, openness, collaboration, experimentation, trust, confrontation, and autonomy. The first part of the instrument has 24 items that measure the items valued in the organization, and the second part has 16 items that measure how widely the organization shares its beliefs. All the items are measured on a 4-point scale. We measured the first part of the instrument using a 4-point scale ranging from "1" (very low valued) to "4"

Table 2. Respondent profile

		Count	Column N %
Type of board	State	606	80.8
	ICSE	113	15.1
	CBSE	31	4.1
Type of school	Government	236	31.5
	Aided	239	31.9
	Unaided/Private	275	36.6
Gender	Female	620	82.7
	Male	130	17.3
Marital status	Married	563	75.1
	Unmarried	187	24.9
Age	<20 Yrs	4	0.5
	21–25 Yrs	71	9.4
	26–30 Yrs	179	23.9
	31–35 Yrs	95	12.7
	36–40 Yrs	89	11.8
	41–45 Yrs	123	16.4
	>46 Yrs	191	25.4
Educational qualification	Diploma	92	12.2
	Graduation	338	45.0
	Post-Graduation	241	32.1
	Others	80	10.7
Years of teaching experience	<2 Yrs	78	10.4
	2–5 Yrs	175	23.3
	6–10 Yrs	167	22.3
	11–20 Yrs	140	18.7
	>20 Yrs	190	25.3

Source(s): Own elaboration

(highly valued). We measured the second part of the instrument using a 4-point scale ranging from “1” (only a few or none have this belief) to “4” (very widely shared belief).

Learning organization. The learning organization profile (LOP) by Pareek and Purohit (2018) is a reliable tool for measuring an organization’s learning culture. The LOP generates a comprehensive profile that identifies and measures eight key dimensions, including holistic frame, strategic trust, internality, shared vision, synergy, empowerment, information flow, and learning. Each dimension consists of further eight items, giving a total of 48 items to measure an organization’s learning potential. The instrument uses a 5-point scale ranging from strongly disagree (1) to agree (5) and has an impressive Cronbach’s alpha of 0.883. The LOP is based on the fifth discipline framework, which aligns with Senge’s (2006) five disciplines, ensuring that the tool captures all the critical components necessary for a complete evaluation of an organization’s learning culture.

Leadership style. We utilized the educational leadership style scale by Kareem and Patrick (2019) to evaluate the leadership techniques employed by supervisors, principals, and coordinators as perceived by teachers. The scale measures two distinct leadership styles, i.e. transactional and transformational. We evaluated the transactional style across three dimensions: task (four items), intervention (three items), and reward (four items), while the transformational – across four dimensions: supportive (10 items), expectation (three items), recognition (three items), and corrective (four items). Overall, the scale consisted of 31 items, each rated on a 5-point scale ranging from strongly disagree (1) to agree (5). The leadership styles scale demonstrated high reliability with a score of 0.906.

Personal commitment. To measure personal commitment, the Kareem and Srikantaswamy (2014) study utilized the personal commitment scale, which consists of three dimensions: commitment towards self (4 items), commitment towards the organization (5 items), and commitment towards others (student development) (9 items). The scale, which includes a total of 18 items, has an excellent overall reliability of 0.920 and all tools used show strong internal consistency with $\alpha > 0.700$. Respondents rate each item on a 5-point scale ranging from strongly disagree (1) to agree (5).

Analysis and interpretation

Regression analysis

The researcher employed multiple regression techniques to test the direct influence of the personal commitment of teachers and the leadership styles of school principals on schools as learning organizations. Table 3 and Table 4 show the results, respectively.

Based on the regression results, we discovered that the three predictors of personal commitment accounted for 19.9% of the variance ($R^2 = 0.199$, $F(3,746) = 61.903$, $p < 0.001$)

Table 3. Descriptive statistics, model summary, analysis of variance (ANOVA), and coefficient values of personal commitment (PC) and its influence on learning organization (LO)

		PC	Self	Org	Student	LO
Model summary	Mean	2.91	2.86	2.76	3.10	3.34
	SD	0.76	0.77	0.74	0.78	0.78
	R ²	19.9				
	F	61.90				
ANOVA						
Coefficient	B		0.060	0.263	0.089	
	T		1.88*	9.04**	2.97*	

Note(s): **Denotes significance at 01 level; *Denotes significance at 05 level
PC- Personal commitment; Self- Commitment to self; Org- Commitment to the organization; Student- Commitment to student development; LO- Learning organization
Source(s): Own elaboration

Table 4. Descriptive statistics, model summary, analysis of variance (ANOVA), and coefficient values of leadership styles (LS) and its influence on learning organization (LO)

		LS	R	I	C	T	Re	Ex	S	LO
Model summary	Mean	2.86	2.61	2.65	2.71	3.27	2.98	2.85	2.98	3.34
	SD	0.82	0.98	0.86	0.72	0.77	0.85	0.84	0.74	0.78
	R ²	22.8								
	F	31.35								
ANOVA										
Coefficient	β		0.26	0.12	0.19	0.11	0.15	0.06	0.10	
	T		1.28*	3.48**	5.22**	2.51**	5.69**	2.78**	2.95**	

Note(s): ** Denotes significance at 01 level; * Denotes significance at 05 level

LS – Leadership style; R – Reward; I – Intervention; C – Corrective; T – Task; Re – Recognition; Ex – Expectation; S – Supportive; LO – Learning organization

Source(s): Own elaboration

in this study. Table 3 with a p -value of less than 0.001 shows that the model was effective in predicting learning organization. Specifically, Table 3 highlights that the personal commitment dimensions of commitment to self ($t(750) = 1.88, p < 0.043$), commitment to the organization ($t(750) = 9.038, p < 0.001$), and commitment to the student ($t(750) = 2.971, p < 0.01$) significantly predicted learning organization. These findings support our Hypothesis 1: the personal commitment of school teachers has a direct impact on supporting schools as learning organizations.

The dimensions of leadership style serve as strong predictors of the learning organization construct. Through regression analysis, we found that the seven predictors of leadership styles accounted for 22.8% of the variance ($R^2 = 0.228, F(7,742) = 31.351, p < 0.001$). Table 4 ($p < 0.001$) shows that the overall model is sufficiently significant in predicting learning organization. Specifically, we found that the dimensions of transformational leadership styles – transformational-corrective ($t(750) = 5.22, p < 0.01$), transformational-recognition ($t(750) = 5.67, p < 0.01$), transformational-expectation ($t(750) = 2.785, p < 0.01$), and transformational-supportive ($t(750) = 2.956, p < 0.001$) – significantly predict learning organization. Thus, we accepted Hypothesis 3 that the transformational leadership style of the principal directly influences schools as a learning organization. Moreover, we found that the dimensions of transactional leadership styles – transactional-reward ($t(750) = 1.28, p < 0.05$), transactional-intervention ($t(750) = 3.48, p < 0.01$), and transactional-task ($t(750) = 2.51, p < 0.05$) – significantly predict learning organization, supporting our Hypothesis 4 that the transactional leadership style of the principal directly influences schools as a learning organization.

SEM analysis

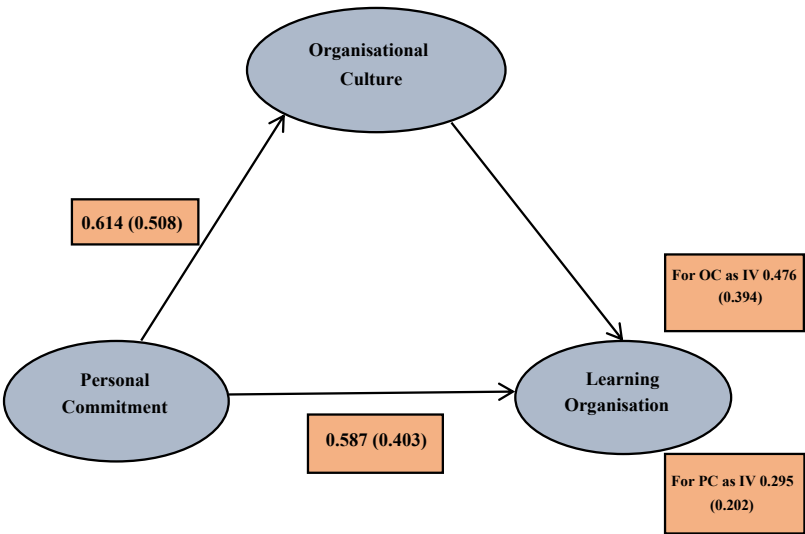
The proposed conceptual model (Figure 1) fits the data well, as confirmed by various fit measures considered in the present study. The goodness-of-fit index of the proposed model was 0.613, which indicates a good fit. Other measures like AGFI, CMIN/DF, CFI, NFI, RFI, IFI, TLI, PRATIO, and PGFI also indicated a good fit for the proposed model. As a rule of thumb to check the model fitness, we referred to the AMOS 16.0 user's guide (Arbuckle, 2007). The CMIN (χ^2) value was 23729.1, df was 6,290, and the p -value was < 0.001 , which means that the sample fit adequately into the hypothesized network of relationships in the research model. Marsh and Hocevar (1985) recommend using ratios as low as 2 or as high as 5 to indicate a reasonable fit. The proposed conceptual model indicated a good fit for the data and confirmed that the hypothesized model fit the sample data adequately. Mulaik et al. (1989) state that the PGFI value exceeding 0.5 would indicate that the model employed is a perfect fit for the data in this study. Moreover, RMSEA value of 0.061 indicates a good fit. Overall, the

proposed conceptual model had a significant fit and all fitness measures were at acceptable levels.

Sobel’s test is a statistical method used to assess the significance of the mediation effect of a mediating variable. The test reported a p -value <0.05 , which indicated a significant mediating effect. This procedure serves to evaluate the significance of the mediating paths in the proposed model. [Figures 2 and 3](#) illustrate the mediating paths’ results.

The statistical analysis revealed that organizational culture mediated 49.73% of the total effect in the path between personal commitment and learning organization, which is statistically significant at a 0.001 level (refer [Tables 5 and 6](#)). This implies that organizational culture plays a significant role in influencing the relationship between personal commitment and learning organization. Thus, personal commitment indirectly affects learning organizations through organizational culture. Thus, we accepted [Hypothesis 2](#), according to which organizational culture significantly mediates the relationship between personal commitment and learning organization.

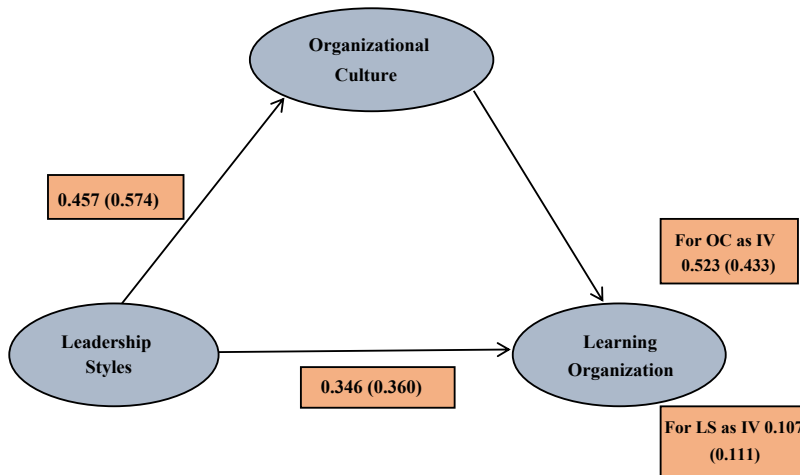
Organizational culture plays a significant role in mediating the relationship between leadership styles and learning organization. In fact, it mediated 69.12% of the total effect, which is statistically significant at <0.001 level (refer [Tables 7 and 8](#)). According to Sobel’s test of mediation, organizational culture significantly mediates the path of leadership styles and learning organization. This means that leadership styles indirectly affect learning organizations through the organizational culture. Therefore, we accepted [Hypothesis 5](#) and organizational culture significantly mediates the relationship between leadership styles and learning organization.



Note(s): The values reported in paths are unstandardized coefficients. The values reported in parenthesis are standardized coefficients. OC: Organizational culture, PC: Personal Commitment, IV: Independent Variable

Source(s): Own elaboration

Figure 2. Mediating effect of the organizational culture on the relationship between personal commitment and learning organization



Note(s): The values reported in the paths are unstandardized coefficients. The values reported in parenthesis are standardized coefficients. OC: Organizational culture, LS: Leadership Styles, IV: Independent Variable

Source(s): Own elaboration

Figure 3. The mediating effect of organizational culture on the relationship between leadership styles and learning organization

Table 5. Indicating summary of regression analysis for the significance of mediation of OC in the Path PC – OC – LO

IV	DV	Un-standardized coefficient B	Standardized coefficient Beta	t-value	p-value	R ²
PC	LO	0.587	0.403	12.036	<0.001	0.162
PC	OC	0.614	0.508	16.129	<0.001	0.258
PC	LO	0.295	0.202	5.609	<0.001	0.278
OC		0.476	0.394	10.924	<0.001	

Note(s): LO – Learning organization, PC – Personal commitment, OC – Organizational commitment

Source(s): Own elaboration

Table 6. Indicating summary of results of Sobel's test for mediation of the relationship between PC and LO by OC

H	Hypothesized mediating effect	Sobel test statistic	Percentage of the total effect that is mediated	The ratio of the indirect to the direct effect	p-value
H1	PC → OC → LO	9.044	49.73	0.9894	<0.001

Note(s): LO – Learning organization, PC – Personal commitment, OC – Organizational commitment

Source(s): Own elaboration

Discussion

The results indicated that school teachers' personal commitment influences various indicators of learning organization. Teachers who demonstrated higher levels of personal commitment reported experiencing fulfillment, active involvement, and internal drive within the learning

Table 7. Summary of regression analysis for significance of mediation of OC in the path LS – OC – LO

IV	DV	Un-standardized coefficient B	Standardized coefficient Beta	t-value	p-value	R ²
LS	LO	0.346	0.360	10.546	<0.001	0.129
LS	OC	0.457	0.574	19.155	<0.001	0.329
LS	LO	0.107	0.111	2.883	<0.001	0.256
OC		0.523	0.433	11.247	<0.001	

Note(s): LS – Leadership Styles, LO – Learning organization, OC – Organizational Commitment
Source(s): Own elaboration

Table 8. Summary of results of Sobel test for mediation of the relationship between LS and LO by OC

H	Hypothesized mediating effect	Sobel test statistic	Percentage of the total effect that is mediated	The ratio of the indirect to the direct effect	p-value
H2	LS → OC →LO	9.6989	69.12	2.238	<0.001

Note(s): LS – Leadership Styles, LO – Learning organization, OC – Organizational commitment
Source(s): Own elaboration

organization context. They were more likely to engage in collaborative activities, actively participate in professional development, and take on leadership roles within the school (Reese, 2020). A study among Indonesian teachers evidenced that a strong organizational culture leads to an increase in teacher’s organizational commitment (Izzati & Indriani, 2024). This study used mediation analysis to explore organizational culture’s mediating role between personal commitment and learning organization. The results revealed that organizational culture significantly mediated this relationship, suggesting that a positive organizational culture partially explained the influence of personal commitment on learning organization. Teachers who demonstrated higher levels of personal commitment reported adopting a conducive atmosphere for continuous learning, knowledge sharing, innovation, and collective growth within their schools, which in turn aligned with the characteristics of the learning organization, such as collaboration, continuous learning, and innovation (Kalkan, AltunayAksal, AltunayGazi, Atasoy, & Dağlı, 2020).

The findings revealed a significant favorable influence of principals’ transformational leadership style on learning organizations. The study associated principals who exhibited higher levels of transformational leadership with schools that demonstrated a shared vision and a culture of continuous learning, collaboration, and innovation. Such principals inspired and motivated teachers to excel in their roles, encouraged professional growth, and created opportunities for collaboration and experimentation (Yada & Jäppinen, 2018). These leadership behaviors contribute to a school culture that values learning and supports learning organization development (Azeem et al., 2019; Azeem et al., 2020). Transformational leadership and organizational culture positively influence the development of learning organizations both in India and Nepal (Rijal, 2010). The findings revealed a significant favorable influence of principals’ transactional leadership style on learning organizations. The study associated principals who exhibited higher levels of transactional leadership with schools that demonstrated clear expectations, structured systems, and performance-based rewards. The findings indicated that principals with a transactional leadership style focused on maintaining order, setting goals, and ensuring compliance (Judge & Piccolo, 2004). They utilized contingent rewards and punishments to motivate teachers and maintain performance standards (Ghasemy et al., 2018). While transactional leadership can provide stability and structure within an organization, its influence on fostering a trustworthy learning organization was limited.

The study examined different dimensions of leadership styles, including supportive, expectation, recognition, corrective (for transformative style), task, intervention, reward (for transactional style), and their impact on learning organization. The findings demonstrated that transformative leadership dimensions were positively associated with a supportive and recognition-oriented organizational culture, while transactional leadership dimensions were linked to a more structured and compliance-oriented culture (Marsick & Watkins, 2015; Watkins & Marsick, 1993; Watkins, Marsick, Wofford, & Ellinger, 2018). The study's findings do not necessarily suggest that one style is better for all situations. Instead, they indicate that transformative and transactional leadership styles uniquely create favorable conditions for learning organizations. The choice between these styles may depend on the specific organizational context, objectives, and the nature of the organization's tasks or challenges. A balanced approach that incorporates elements of both styles may most effectively promote a learning culture while maintaining structure and performance standards. However, recognizing the holistic influence of leadership on learning organizations, the study employed a parceling method to analyze the mediating effect of organizational culture (Little, Cunningham, Shahar, & Widaman, 2002; Hair, Ringle, & Sarstedt, 2011). The results indicated that organizational culture significantly mediated the relationship between leadership styles and learning organization, suggesting that a good organizational culture partially explained the increase in the impact of leadership style on learning organization.

Implications

Theoretical implications

According to Luhmann's (2013) theory of autopoietic systems, we move towards a more holistic, adaptive, and context-sensitive understanding of how educational institutions learn. The integrated approach recognizes the density and dependency of institutional elements like leadership styles and teachers' commitment and emphasizes the significance of viewing the institutions as a dynamic, evolving system. This study contributes to advancing knowledge on leadership styles within the specific context of learning organizations, thereby expanding existing theoretical frameworks. The investigation delves into the various dimensions and consequences associated with transformational and transactional leadership styles, specifically about organizational culture and learning organization development. Consequently, this research enriches our theoretical understanding of leadership dynamics and their influence within educational settings. The research findings provide valuable insights into the mediating role of organizational culture in the association between leadership styles and learning organizations, thereby advancing our comprehension of how organizational culture impacts the effectiveness of diverse leadership styles and its importance in cultivating a favorable environment for learning and fostering growth. The research findings contribute valuable insights to leadership development theories and practices within educational contexts, emphasizing the importance of cultivating transformational leadership behaviors, fostering a supportive organizational culture, and balancing transactional and transformational elements.

Managerial implications

We recognize the pivotal role of organizational culture in shaping learning organizations and propose strategies to foster a culture that emphasizes openness, collaboration, continuous learning, innovation, and respect. The strategies involve promoting effective communication, establishing shared goals, providing opportunities for professional development, and implementing recognition and reward systems to acknowledge contributions. School leaders should focus on strategies that directly contribute to the effectiveness of educational practices, such as improving student learning outcomes. This includes promoting effective communication, setting shared goals, and providing professional development opportunities.

Aligning leadership practices and organizational culture to improve student learning ensures tangible educational benefits, not just superficial performance metrics. These findings offer practical recommendations for cultivating a conducive organizational culture that supports learning organization development, enhances the leadership capabilities of principals and administrators by providing training and development programs that focus on both transformational and transactional leadership styles, and cultivates leaders who can inspire, motivate, and empower teachers while providing structure, clear expectations, and performance-based incentives. Managers in both public and private institutions should focus on developing transformational leadership and aligning personal cultural values with organizational goals to enhance the effectiveness of learning organizations, a priority widely discussed in educational psychology literature (Şahin & Bilir, 2024). Expanding upon the work of Schwartz and Rist (2017), this study emphasizes the vital significance of organizational learning and the leadership's role in creating a favorable learning environment. It underlines how a learning organization needs a flexible structure that fits dynamic changes, a culture that promotes teamwork, and a friendly learning environment. Constant improvement depends on independent review, which also enables companies to learn and remain competitive. Building systems that enable learning at all levels should be a top priority for managers if they want to keep agility and success in changing surroundings, encourage autonomy, involvement in decision-making processes, and opportunities for professional growth; foster a culture of trust, collaboration, and experimentation to empower teachers to take risks, innovate, and contribute to the collective learning process; and ensure alignment between leadership styles and the desired organizational culture. Moreover, leaders should embody and demonstrate behaviors consistent with the organization's values and goals and regularly assess and monitor the organizational culture to ensure it supports the learning organization's objectives.

Conclusions

The study revealed that organizational culture, leadership styles, and personal commitment are crucial for creating a learning organization in Indian school education. Schools should adopt the learning organization model to balance the focus on performance with a commitment to genuine educational improvement, avoiding the pitfalls of performative culture, which can lead to the fabrication of a school's image (Cowie, Taylor, & Croxford, 2007). The model highlights the importance of appropriate leadership styles in creating a healthy organizational culture and boosting teachers' commitment. Key steps include establishing a favorable learning environment, promoting idea exchange, breaking down barriers, and prioritizing education. However, the study's findings are limited to Bengaluru and cannot be generalized to other fields due to convenience sampling. We need further research to understand the mediating impact mechanism and explore different leadership styles' impact on learning organizations. Further studies could expand the study's scope to include higher education institutions (HEIs) that involve competing models and additional stakeholders. Longitudinal studies could also examine the transformation process of educational institutions into learning organizations. Future research on learning organizations in schools could benefit from analyzing their direct impact on students' outcomes and experiences, investigating students' perceptions of these organizational practices, and conducting international comparative studies to understand the influence of diverse cultural, economic, and policy contexts on their implementation and effectiveness.

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