



## Moderating Role of Long-Term Learning Environment and Organisational Culture as Mediators: The Effects of Transformational Leadership on Organisational Commitment – Evidence by University Lecturers in China

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### ABSTRACT

**Purpose:** This study examines the influence of organisational culture and long-term learning contexts on the connection between transformational leadership and organisational commitment among Chinese university professors. Through examining these dynamics, the research aims to offer valuable insights to encourage educators in Chinese university environments to increase their dedication and engagement. This will improve efficiency within organisations and boost employee morale in higher education institutions. **Method:** The research explored the measurable effects of extended learning settings and corporate culture on the impact of transformational leadership on organisational commitment among Chinese university professors using questionnaires. Employing a quantitative research approach, standardised surveys were distributed to professors from various Chinese universities to collect data. The research analyses information from 200 scholars at different Chinese educational institutions through quantitative research methods

and an extensive literature review. Structural equation modelling is used to analyse the data. The research was conducted using convenience sampling, a non-probability sampling technique.

**Findings:** Results indicate a significant positive relationship between transformational leadership and organisational commitment within the academic community. In addition, the research indicates that the connection is influenced by the presence of a robust long-term learning atmosphere, enhancing the positive impacts of transformational leadership on organisational dedication. In addition, organisational culture plays a crucial role as a moderator in determining the impact of transformational leadership on instructors' commitment through its influence on the cultural

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background of academic institutions. **Implications for Research and Practice:** The consequences underscore the importance of fostering transformational leadership qualities, establishing conducive long-term learning environments, and nurturing a positive organisational culture to enhance lecturers' commitment and engagement in Chinese university contexts. This study contributes to a better understanding of leadership dynamics, organisational dynamics, and strategies for human resource development in the context of Chinese higher education.

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## Introduction

This article delves into how participant communication processes were influenced using activity system analysis in K-12 school and university partnership evaluation sessions to serve as a framework for discussion, identifying recurring institutional issues and shaping solutions. Expressing the concept of leadership in literature can be challenging due to its ever-changing nature. Various authors provide a fundamental grasp of the subject. As per Larson, the ability to determine necessary actions and influence others to accomplish them is known as leadership (Dartey-Baah, 2015). Many theories highlight the importance of the leader's charisma, the environment, and their behaviour (Kozminski et al., 2022). Past studies have shown that a crucial factor in enhancing team performance is the educational leadership of the leaders (Choi et al., 2018). Furthermore, the satisfaction of job happiness, institutional commitment, and effectiveness are all positively related to institutional communication satisfaction (Choi et al., 2018). Identifying with and being involved in the employing organisation is crucial for success. In their study, Wang et al. (2021) highlighted the concept of institutional commitment, which encompasses both effective continuation and normative components. Emotional commitment pertains to an individual's strong emotional bond and willingness to remain in an organisation (Goetz & Wald, 2022).

University educators' dedication to transforming education management can be influenced by a range of factors, such as their personal beliefs and values, their views on the advantages and obstacles of change, their engagement in the change process, and their confidence in the leaders spearheading the change. Teachers may dedicate themselves to various aspects beyond the fundamental organisational dedication mentioned earlier, including their profession, their educational institution, their field of expertise, and their students. Researchers raised concerns about using organisational commitment surveys to measure teachers' dedication, as these surveys may not fully capture the multifaceted nature of teachers' dedication, which goes beyond just meeting job expectations to include commitments to enhancing students' well-being and progressing in their respective fields. Teachers who are dedicated to their craft show a strong focus on delivering high-quality instruction, demonstrating enthusiasm for their subjects, and investing extra time in their students, as proposed by one theory (Ibrahim & Aljneibi, 2022). Extensive research has demonstrated a link between teachers' dedication and their staying power, effectiveness, well-being, and student success. However, in this study, commitment is frequently viewed as a "broad connection with either the school or the teaching profession rather than a multidimensional concept". Due to this, the extensive body of research indicating that commitments can be experienced in many ways and lead to different outcomes has not positively impacted the field of education. In recent times, researchers have begun to

explore teachers' organisational and professional commitment through the three-component model of commitment (Meyer et al., 2019).

Transformative leadership involves a leader who prioritises the personal interests of their followers and provides ideal influence, motivation, and intellectual stimulation. We have also studied the impact of organisational culture and policies, as well as the influence of gender differences on leadership dynamics. We have gained insights into teaching methods for this subject and predicting leadership styles. More inclined to act as a guarantor (Bass, 1999). Students are instructed to identify the solutions their teachers are seeking. Success as a student hinge on it. It also appeals to corporate managers who are faced with a problem. This method stifles innovation since creativity thrives on unexpected solutions. Those who have a significant impact are guided by their own ideas, not by the expectations of others. They excel at challenging the system, refusing to give in to it (Nalebuff & Brandenburger, 1997). Organisations are experiencing significant changes in leadership due to various external and internal factors, which can have a positive impact on organisational performance. An organisation can adapt its leadership approach to enhance overall performance. Even though the literature indicates that leaders who drive change can impact performance, the mechanisms through which this occurs are especially intriguing (Nguyen et al., 2023).

Professional development is commonly seen to enhance and maintain instructors' knowledge. Recognising the importance of starting education early, there are limited options for obtaining degrees. However, teachers can benefit from professional development opportunities throughout their careers to enhance student education. Traditional methods of teacher training for certification focus heavily on the required annual credit hours for validation and professional growth activities, which are typically short and cover topics determined by coursework or local/regional bodies. Episodes may include events that are detached from the real classroom setting (Fairman et al., 2023). Developing a professional approach to teaching and ensuring high-quality instruction cannot be solely achieved through experience. There is a need for further work on development. Like improving a skill, progress is achieved through consistent practice, which requires a foundation of critical thinking and education based on theory to introduce new ideas. An organised approach to education that includes teacher professional development, conceptualization, planning, and reflection. Just like any other form of experiential learning, this new experience will be influenced by past learnings and the experiences of others. Experience plays a crucial role in this process (Beatty, 1998).

Due to the fast-paced advancements in new technologies, extended learning environments are now widespread and are beginning to significantly influence daily educational practices. One of the crucial factors influencing learning outcomes for individuals in these settings is their proficiency in utilising support facilities. Nevertheless, an increasing amount of research suggests that students often misapply or entirely ignore support features (Aleven et al., 2003).

#### *Contribution of The Study*

This study's significance is in delving into the complex connections among transformational leadership, organisational commitment, long-term learning environments, and organisational culture in the specific setting of Chinese universities. This research provides valuable insights into improving organisational commitment among university

lecturers by exploring these connections. This study delves into the impact of transformational leadership, supportive organisational cultures, and conducive learning environments on lecturers' commitment in the higher education sector in China. Moreover, the results of the study could lead to customised approaches to enhance dedication and motivation among the workforce in educational settings, benefiting both educators and the institutions they are a part of.

The questions of the study are:

1. What is the nature and strength of the relationship between transformational leadership and organizational commitment among university lecturers in China?
2. How does the presence of a long-term learning environment moderate the relationship between transformational leadership and organizational commitment?
3. To what extent does organizational culture mediate the relationship between transformational leadership and organizational commitment in Chinese university settings?
4. What practical strategies and interventions can be recommended to leverage transformational leadership, long-term learning environments, and organizational culture to enhance organizational commitment among university lecturers in China?

The objectives of the study are:

1. To examine the relationship between transformational leadership and organizational commitment among university lecturers in China.
2. To investigate the moderating role of long-term learning environments in shaping the impact of transformational leadership on organizational commitment.
3. To explore the mediating influence of organizational culture in the relationship between transformational leadership and organizational commitment within Chinese university settings.
4. To provide actionable insights and recommendations for fostering higher levels of organizational commitment among university lecturers through the cultivation of transformational leadership behaviors, supportive learning environments, and conducive organizational cultures.

## Literature Review

The major variables that were discussed will be examined in the literature. These variables include transformational leadership, professional development opportunities, educational team effectiveness of educational faculty on organisational commitment, as well as the mediating effects of organisational culture and the moderating effect of the long-term learning environment. According to the literature, relationships are hypothesised and established. There are many implications for the importance of educational leadership, highlighting the need for increased accountability and proper training for education leaders. It is the responsibility of education leaders to ensure that solutions aligning teaching and learning with policy objectives are effectively implemented by their staff (Goldring & Schuermann, 2009).

### *Organizational Commitment*

An influential area of leadership research focuses on the leader's capacity to motivate followers to act in the group's best interests over an extended period. Effective leaders often leverage emotional, ethical, and cultural components to engage their followers, as suggested by the lead researcher (Kozminski et al., 2022). The alignment between the organisation and the employee is crucial for organisational commitment, resulting in increased dedication and effort towards the organisation, ultimately leading to improved task performance (Goetz & Wald, 2022). Research supports the connection between institutional commitment and behaviours that enhance institutional effectiveness. Resolute educators enhance children's learning and well-being through their deep emotional connections to the school, individuals, and the material they teach. Three essential components are required for a strong dedication to education: Believing in transforming the educational system, students' learning expectations, and dedication to fostering a conducive learning atmosphere (Mart, 2013). Education is crucial for equipping individuals and countries with the necessary skills and perspectives to thrive in a competitive job market within a global context. Whether future graduates succeed and if their educational environment has helped them develop the necessary skills to become workers, businessman, or leaders is ultimately determined by each individual. Educational leadership involves the responsibilities and tasks aimed at enhancing school management and student motivation. The school administrators, including the principal, deputy manager, and teachers, prioritise attending training sessions to receive materials that assist in identifying strengths and weaknesses in teaching and learning, and guide them in developing activities. Institutional communication is the cooperative interaction among institutional members to achieve institutional goals (Choi et al., 2018).

### *Transformational Leadership*

The primary goals of transformational leadership in education are to maintain the institution's educational standards and enhance support for students' learning and development. Psychologists and educators have long been concerned about student motivation for learning in the classroom. Studies on the impact of student motivation on learning and academic Performance have been conducted since the early 1970s. Based on research in this specific field, students' motivation predicts the extent to which they seek out or avoid difficult situations and persist in the face of challenges (Bredenkamp et al., 2022). Explaining the concept of leadership is challenging due to its dynamic nature and its relationship with other concepts, as discussed in the literature. Several authors provided their perspectives on a certain level of understanding regarding this concept. Several correlations have been identified between leadership and various organisational outcomes such as organisational culture, job satisfaction, employee motivation, team performance, and organisational performance (Bass et al., 2003).

An organization's resilience is rooted in its culture, which shapes how growth, support, and crisis are perceived within the structure. Resistance and resilience were not promoted, leading to the establishment of an environmental resilience culture as a fundamental aspect of the culture (Bass et al., 2003). The author notes that previous researchers have demonstrated the capacity to navigate challenging situations, particularly in terms of survival and returning to normalcy. They specifically focused on how leaders exhibit resilience in such circumstances (Dartey-Baah, 2015). Human resilience and leadership

support Everely's idea that developing resilience in a culture involves focusing on the leadership qualities of "strength and honour" (Bass et al., 2003). Educators should be given adequate time and training to enhance their technology skills and be authorised to make decisions related to technology. Teachers have limited free time after a day filled with teaching, parent meetings, and staff gatherings. Acquiring new skills in any field requires time. Time constraints hinder the incorporation of computers in classrooms, even for proficient and enthusiastic teachers utilising technology. Educators need time to experiment with technology, engage in discussions with colleagues about their experiences, and participate in service learning initiatives focused on technology (Fabry & Higgs, 1997).

### *Professional Development Opportunities*

Professional development for teachers is essential and should be viewed as continuous. Research suggests that teachers' professional development typically involves two main strategies. There exist two distinct approaches: formal and informal. Professional development for teachers involves specialised educational programmes. Informally, the method is usually self-directed and self-initiated. This informal approach involves choosing training areas according to educators' needs and preferences. Teachers can utilise informal methods to support the advancement of their professional growth. Teacher education involves ongoing and continuous development, also referred to as continuous professional development. Examine the objectives of ongoing professional development. Day & Sex says he mentions: "Adapting teacher practice to educational policies, Improving student learning outcomes by improving teacher performance, or enhancing teaching professional status and profile" (El Deen, 2023). Emphasising the significance of reform in universities is evident when focusing on university education. Viewed as an ecosystem that engages in research, development, education, knowledge transfer, and discovery. These procedures are based on concepts such as social justice and peace education. We must make substantial changes to our beliefs, perceptions, and the behaviour of young people when discussing sustainable development, analysing the issues, and considering potential outcomes. It is essential to fully engage in our society's development in order to understand how to act and exist (Peña Miguel et al., 2020).

### *Organizational Culture*

The organization's culture is reflected in the psychological makeup of its employees and the values it upholds. The way employees perceive and carry out their tasks is what sets one organisation apart from another. It stands out as a particularly generous characteristic of any organisation. An organization's culture is its value system that influences how employees perceive and distinguish the organisation. The activities and outcomes of an ideal workplace have a positive impact. (Nguyen et al., 2023). In every organisation, there are distinct categories of cultural elements that reflect the diversity of cultures present. For example, the organisation exhibits a clan culture that fosters a family-friendly environment among employees, while also emphasising a hierarchical structure that ensures equality among all employees. Describing the market culture that characterises diligent workers who reach their goals and strive for an adhocracy culture to enhance employee effectiveness and promote innovative practices. Organisational units exhibit varying cultural patterns based on the nature of the work they carry out (Brown et al., 2021).

The key factor in enhancing organisational performance in total quality management is the organisational culture. Schein (2010) described the culture of an organisation as a framework that adapts to address internal and external changes through various groups within the organisation. Therefore, newcomers need to be trained in appropriate methods to understand, experience, and identify all available resources for solutions (Eniola et al., 2019). Understanding an organization's culture in relation to specific global populations is a complex concept to navigate. A strong organisational culture leads to increased effectiveness and operational efficiency within the organisation (Lapiņa et al., 2015). Dyck et al. (2019) explained that Quinn and Rohrbaugh (1983) examined that "the collection of ideas and principles that lie behind the statements are the organizational culture that the things happen in the organization." Creating a conducive environment and influencing others are essential for successfully carrying out operational and business activities. In a study by Eniola et al. (2019), it was highlighted that creating a conducive workplace environment conducive to fostering organisational culture can positively impact employee satisfaction and overall organisational performance.

#### *Long-Term Learning Environment*

This review aims to enhance individual learning within long-term learning environments. We acknowledge that learning environments providing shared learning opportunities are significant from an ideological perspective. It is logical to analyse two categories of long-term learning environments independently when seeking assistance. Help in a shared learning environment may be influenced by social factors that do not significantly impact individual learning activities. Typically, various long-term learning environments provide diverse forms of assistance to learners. They typically provide on-demand assistance. Information sought by the learner and provided by the system is known as on-demand support. The objective is to enhance the learning experience for students through a sustained learning setting (Aleven et al., 2003). Implementing the learning process in the classroom involves considering the presence of learning incentives, such as incentives in the educational environment. Determined students are enthusiastic about their scholarly pursuits. Encouragement pertains to an individual's performance of a task or job. Greater motivation and focus lead to higher success in completing learning activities. Educators should strive to motivate and guide students in efficiently fulfilling educational tasks. Effective learning is anticipated when there is strong motivation and positive teaching and learning interactions between educators and learners (Wardani et al., 2020). However, teachers should encourage students to participate in and experiment with educational activities. It is important to proceed with care to avoid demoralising them or inhibiting their creativity in case they become disinterested in the topic. We must be careful not to hinder our children's participation. Within an interactive multi-model learning environment, learners' decisions influence the progression of events. Interactivity hinges on a learner's response to the learning process. Irrespective of the learner's achievements during the learning process, a multimedia message is presented in a standard way in a non-interactive multimodal learning setting. Two instances of a non-interactive multi-model learning environment are a textbook passage containing animations or text and graphics. When studying in an interactive multimodal setting, the learner's actions dictate the words and images displayed (Moreno & Mayer, 2007). Both completely online and completely in-person settings are part of the same spectrum. Augmented reality allows for immersive hybrid learning environments where real and

virtual objects can exist together. Thanks to cutting-edge firefighting reality technologies, users can now immerse themselves in scientific events that are beyond the realm of the physical world, providing students with valuable access to previously inaccessible information. Unlike some educational methods, there are no (Khan et al., 2019).

### *Hypothesis Development*

Developing hypotheses is crucial in research as it helps direct the investigation and provides forecasts regarding the connections among variables. These hypotheses are based on established theories that highlight the contextual influences and pathways by which leadership behaviours can impact organisational commitment. These informed forecasts assist in shaping the study's structure and statistical evaluations, aiding researchers in methodically examining and explaining the connections among variables." During hypothesis development, researchers make educated guesses about the anticipated relationships between various elements being studied.

### *The Effect of Transformational Leadership and Professional Development Opportunities on Organizational Commitment*

Transformational leadership involves distributing leadership responsibilities among various levels and individuals in an organisation. Within university education management, distributed leadership offers various advantages such as enhanced decision-making, heightened accountability, improved collaboration, increased innovation, and better communication. This paper outlines the different phases of a formative intervention study conducted from a critical collaborative perspective. Educational managers were actively involved in all stages of the research and were responsible for collaboratively assessing their requirements and restructuring educational management. To restructure educational administration, various stakeholders within the educational system engage in formative meetings to outline the concept of educational management, develop a corresponding strategy, and subsequently implement the plan. The analysis is based on topic analysis and argumentative organisation, guiding the process of creative chain knowledge and illustrating how this understanding can enhance management in the educational system (Lemos & Liberali, 2019).

### *The Effect of Transformational Leadership and Professional Development Opportunities on Organizational Culture*

There is a connection between these effects, with prior academic performance and interactive learning environments potentially influencing increased engagement. Students' initial involvement may have been affected by past academic performance. Interactive learning environments can boost and sustain higher engagement through engaging and interactive learning opportunities. Teachers and academic institutions must understand this concept to establish a learning setting that encourages active participation and, consequently, enhances learning results. In the last two decades, researchers and teachers have increasingly emphasised student engagement in the classroom due to numerous studies showing its positive impact on student growth and academic performance (Lam et al., 2014).



### *Organizational Culture as A Mediator*

Enhancements and long-term viability have been established in resilience efforts known as organisational culture. Furthermore, resilience refers to the ability to adapt to different cultures during times of external turbulence. Behaviour and procedures form the foundation of resilience according to Suryaningtyas et al. (2019). Cultural factors play a crucial role in influencing the resilience of individuals, which can be impacted by both internal and external factors. The organisational culture is founded on the principles, standards, behaviours, and shared working methods within the organisation. Addressing ongoing disagreements and orienting new employees within organisations may lead to the formation of common foundational beliefs. An organization's culture influences problem-solving tactics, solutions, working environment, and behaviour within the organisation. The organisation guides decisions on what is important and valued. Organisational culture and organisational capabilities impact decision-making processes and adaptation to external changes. The organization's level of hierarchy and efficiency is influenced by its cultural values.

### *Long-Term Learning Environment as A Moderator*

Many teachers know that simply transferring classroom content, assignments, and assessments online does not guarantee a successful online course. Online courses are developed, formatted, and organised based on standardised and peer-reviewed criteria like Quality Matters. Exploring management systems, online tools, interactive content, films, and other advanced technologies present educators with various opportunities and challenges. Utilising these and other emerging mechanisms can improve teaching approaches even in traditional classroom settings. Students' learning is influenced by changing environments. Technological advancements do not ensure students will benefit from them if used incorrectly. They provide possibilities rather than guarantees. Online learning shifts the roles of instructors and requires increased self-discipline and motivation from students (Buelow et al., 2018). Each study examines a restricted set of variables that could be crucial in peer evaluation. They are all utilising experimental or nearly experimental designs. Several of these elements are recent and could help in comprehending differences in performance. This represents a significant advancement compared to previous efforts, which involved multiple experiments with poorly controlled variables. To optimise the advantages of digital learning for instruction, teachers play a crucial role. In other words, advocating for digital learning can offer a modern alternative to traditional classroom teaching. Implementing new teaching strategies may pose challenges, but by sharing experiences with colleagues, consulting subject matter experts, and participating in online learning communities, educators can enhance classroom management, teaching methodologies, and professional development (Topping, 2010).

**H1:** *There is an association among transformational leadership and organizational commitment.*

**H2:** *There is an association among professional development opportunities and organizational commitment.*

**H3:** *There is an association among transformational leadership and organizational culture.*

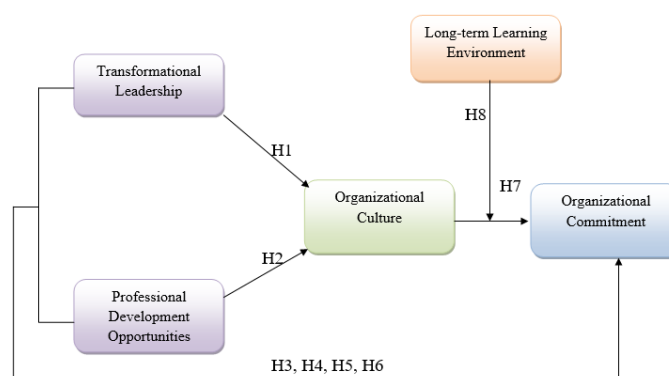
**H4:** *There is an association among professional development opportunities and organizational culture.*

**H5:** *There is an association among organizational culture and organizational commitment.*

**H6:** *Organizational culture mediates the relationship among transformational leadership and organizational commitment.*

**H7:** *Organizational culture mediates the relationship among professional development opportunities and organizational commitment.*

**H8:** Long-term learning environment moderates the relationship between organizational culture and organizational commitment.



**Figure 1:** Conceptual Framework.

### Methodology

The research investigates the potential impacts of factors and population characteristics using PLS-SEM in Smart PLS 3.0. The measurement scales' accuracy is assessed to establish the validity and reliability of the measurement model. Data is collected from 200 Chinese university faculty members through a structured questionnaire utilising a survey approach. Out of 250 questionnaires distributed, 200 were deemed suitable for statistical analysis after excluding 50 incomplete responses. Various metrics such as Cronbach's alpha, AVE, composite reliability, and the HTMT ratio are employed for assessing reliability and validity. Inter-variable correlations are investigated by thoroughly analysing the structural model in a subsequent study. Smart PLS is utilised to test hypotheses and validate our theories.

### Measures

An independent survey was developed for this investigation. The data collection tool was divided into two sections. The initial survey aimed to collect information on student demographics, including gender, education, and experience. The examination of the study's constructs was presented in the second section. There was a total of 25 items on the questionnaire. Data was collected using a five-point Likert scale. To enhance respondents' satisfaction and increase both response rate and quality, a 5-point Likert-type scale was utilised (Babakus & Mangold, 1992). The researchers recommended utilising a 5-point Likert scale ranging from "strongly agree" to "strongly disagree" to enhance patient respondents' experience and optimise response rates and data quality (Sachdev & Verma, 2004).

### Data Analysis

In this study, data analysis was conducted using the PLS-SEM approach in the Smart-PLS 4 software programme. PLS-SEM was selected over covariance-based structural equation modelling due to its better fit for exploratory studies. PLS-SEM is considered

more straightforward to understand compared to covariance-based structural equation modelling (Nawaz et al., 2023). PLS-SEM is considered more advantageous than covariance-based structural equation modelling due to its easier implementation.

### Demographic Analysis

The section included the demographic details of the respondents. The demographics examined include experience, qualifications, and gender. Based on the table, 47% of individuals are women, and 52% are men. Approximately 35% of the participants held an MBA, 28 percent had a BBA, 22% enjoyed a BA, and 15% attended a BSc. Among the staff, 22% had one year of experience, 13% had two years, 20% had three years, 16% had four years, and 30% had five years or more.

**Table 1**

*Demographic Profile of the Respondents*

		Frequency	Percentage
<b>Gender</b>	Male	94	52%
	Female	85	47%
<b>Qualification</b>	MBA	62	35%
	BBA	50	28%
	BSC	27	15%
	BA	40	22%
<b>Experience</b>	1 Year	39	22%
	2 Year	23	13%
	3 Year	35	20%
	4 Year	28	16%
	5 Years and above	54	30%

### Measurement Scale

Data is gathered through a standardised questionnaire. The study includes organisational commitment (Furåker & Håkansson, 2019), transformational leadership (Amanchukwu et al., 2015), professional development opportunities (Jo, 2014), organisational culture (Norton et al., 2015), and long-term learning environment (Oppermann & Rasher, 1997).

### Measurement Model

Reliability and validity are assessed through a measurement model (Hair Jr et al., 2014). Component reliability is assessed through external loading, whereas the internal consistency of variables is evaluated through composite reliability. When the validity and dependability of a relationship between variables have been demonstrated or satisfied, it is considered normal (Peter & Churchill Jr, 1986). We utilised Smart PLS 3.0 for conducting a PLS-SEM analysis on a measurement model (Avotra et al., 2021; Nawaz et al., 2023; Sandra Marcelline et al., 2022). The tests conducted on the items for constructing a PLS measurement model are displayed in Table 2 and Figure 2, indicating validity, reliability, and factor loading. Cronbach's alpha is used to measure an item's internal consistency, with a recommended threshold of 0.70 (Xiaolong et al., 2021; Yingfei et al., 2022). The Cronbach's

correlation coefficient alpha and CR values for the selected variables exceeded 0.70. The reliability was sufficient, and the convergent validity was validated based on the average variance extracted values for discriminant validity being greater than 0.50 (Fornell & Larcker, 1981). Our findings indicated that the values of Cronbach's alpha, CR, and AVE for the mentioned metrics were suitable at 0.6, 0.7, and 0.5, respectively (Hair Jr et al., 2014).

**Table 2**

*Construct Reliability and Validity*

	Items	Outer Loading	VIF	Cronbach's Alpha	CR	AVE
<b>Long-term Learning Environment</b>	LLE1	0.498	1.078	0.744	0.833	0.505
	LLE2	0.712	1.421			
	LLE3	0.763	1.644			
	LLE4	0.771	1.643			
	LLE5	0.769	1.712			
<b>Organizational Culture</b>	OC1	0.653	1.261	0.701	0.808	0.459
	OC2	0.641	1.272			
	OC3	0.773	1.573			
	OC4	0.727	1.393			
	OC5	0.577	1.192			
<b>Organizational Commitment</b>	OCM1	0.602	1.267	0.806	0.867	0.569
	OCM2	0.782	1.757			
	OCM3	0.813	1.969			
	OCM4	0.802	2.021			
	OCM5	0.753	1.903			
<b>Professional Development Opportunities</b>	PDO1	0.610	1.225	0.702	0.808	0.459
	PDO2	0.623	1.258			
	PDO3	0.755	1.535			
	PDO4	0.734	1.403			
	PDO5	0.651	1.305			
<b>Transformational Leadership</b>	TL1	0.653	1.214	0.722	0.816	0.474
	TL2	0.792	1.579			
	TL3	0.714	1.536			
	TL4	0.721	1.577			
	TL5	0.536	1.204			

*Discriminant Validity*

An established method for assessing discriminant validity involves examining the association between a latent variable and the square root of AVE. For a reliable assessment of discriminant validity, it is recommended that the average variance extracted (AVE) should be 0.50 or higher. Valaei and Jiroudi (2016) suggests that the square root of the Average Variance Extracted (AVE) should exceed the values of the latent variable to establish discriminant validity. Confidence intervals generated through bootstrapping should ideally have a maximum level of certainty below 1. When the Heterotrait-Monotrait (HTMT) ratio is 1, the null hypothesis is accepted, indicating a lack of discriminant validity (Sarstedt et al., 2014). We thoroughly investigated the issue by examining the structural routes after ensuring

the variables met accuracy and reliability requirements. We conducted the evaluation based on our comprehension of the necessity for structural path analysis. Supporting discriminant validity, the HTMT values measured were below one (Avotra et al., 2021).

**Table 3**

*Discriminant Validity (Fornell & Larcker, 1981)*

	Long-term Learning Environment	Organizational Culture	Organizational Commitment	Professional Development Opportunities	Transformational Leadership
<b>Long-term Learning Environment</b>	0.710				
<b>Organizational Culture</b>	0.690	0.678			
<b>Organizational Commitment</b>	0.528	0.492	0.754		
<b>Professional Development Opportunities</b>	0.739	0.860	0.563	0.677	
<b>Transformational Leadership</b>	0.499	0.559	0.403	0.467	0.689

**Table 4**

*Discriminant Validity (HTMT)*

	Long-term Learning Environment	Organizational Culture	Organizational Commitment	Professional Development Opportunities	Transformational Leadership
<b>Long-term Learning Environment</b>					
<b>Organizational Culture</b>	0.961				
<b>Organizational Commitment</b>	0.682	0.651			
<b>Professional Development Opportunities</b>	1.041	1.228	0.743		
<b>Transformational Leadership</b>	0.675	0.771	0.494	0.657	

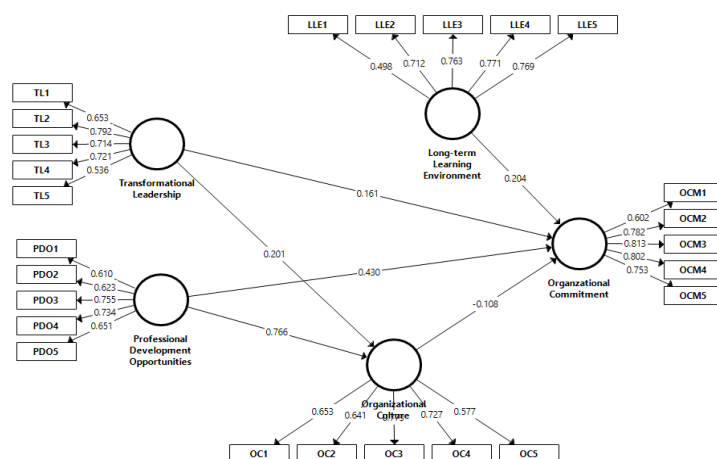


Figure 2. Measurement Model.

### Structural Equation Model

Using the PLS-SEM bootstrapping technique, the pathway coefficients of the structural model, indicating the proposed relationships, were found to be statistically significant. Studies show that utilising PLS-SEM to assess digital health technologies is a reliable measure of psychological well-being. Figure 3 and Table 5 present the evaluation results and pathway correlations for the hypotheses, offering additional details on this discovery. Table 6 summarises the specific conclusions reached by the investigators.

### Quality Criteria

As per Hair et al. (2017), the ratio of an endogenous construct's variance to that of its predictive constructs is denoted as R square. Values typically range from 0.25 to 0.75 in ascending order: small, medium, and large. The outcomes are illustrated in Figure 2. The PLS method allows the Smart-PLS technique to gather data representing small, medium, and large effect sizes, specifically for the exogenous latent variable [0.02, 0.15, 0.35] (Masturah et al., 2018).

Table 5

R-Square Values And Q-Square Values for The Variables

	R Square	Q Square
<b>Organizational Culture</b>	0.771	0.004
<b>Organizational Commitment</b>	0.361	2.004

### Direct and Indirect Path Analysis

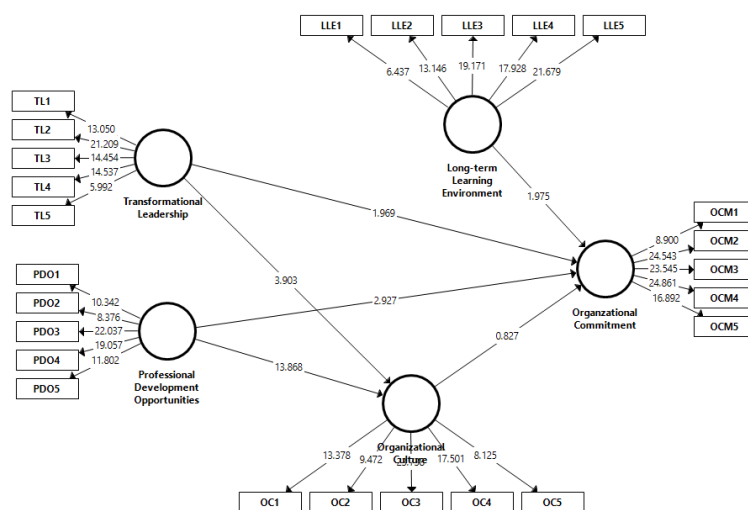
There is a significant positive relationship between transformational leadership and organisational commitment ( $t = 1.969, p = 0.050$ ). Therefore, H1 is acceptable. The study's second hypothesis suggested that professional development opportunities have a notable

effect on organisational commitment ( $t = 2.927, p = 0.004$ ). Therefore, H2 is deemed acceptable. The third hypothesis of the study posits that transformational leadership significantly impacts organisational culture ( $t = 3.903, p = 0.000$ ). Therefore, H3 has been approved. The study's fourth hypothesis suggests that professional development opportunities significantly impact organisational culture ( $t = 1.387, p = 0.000$ ). Therefore, H4 is deemed acceptable. If the study revealed that organisational culture significantly impacted organisational commitment ( $t = 1.975, p = 0.049$ ), it would confirm the fifth hypothesis. Therefore, H5 has been approved. The findings from the direct route analysis are presented in Table 6 as well as Figure 2 and Figure 3.

**Table 6**

*Hypothesis Direct Effect Results*

Construct	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Organizational Culture -> Organizational Commitment	0.130	1.975	0.049
Professional Development Opportunities -> Organizational Culture	0.055	13.868	0.000
Professional Development Opportunities -> Organizational Commitment	0.147	2.927	0.004
Transformational Leadership -> Organizational Culture	0.052	3.903	0.000
Transformational Leadership -> Organizational Commitment	0.082	1.969	0.050



**Figure 3: Structure Model.**

*Mediation Analysis*

The study confirmed the indirect relationship between variables, particularly when

organisational culture acts as a mediator between transformational leadership, professional growth opportunities, and organisational commitment. To assess the indirect effects of these factors, bootstrapping is employed, recognised as a comprehensive method for evaluating mediation effects and increasingly popular among researchers (Zhao et al., 2010).

**Table 7**

*Mediation Effects*

Hypothesis	Construct	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H6	Professional Development Opportunities -> Organizational Culture -> Organizational Commitment	0.102	0.812	0.417
	Transformational Leadership -> Organizational Culture -> Organizational Commitment			
H7	Transformational Leadership -> Organizational Culture -> Organizational Commitment	0.027	0.814	0.416

In addition, based on H6 of the study, organisational culture has a negative impact on the relationship between professional development opportunities and organisational commitment. The study's results support the hypothesis, leading to the rejection of H6 (t = 0.812, p = 0.417). As per the findings in Section 7 of the research, the organisational culture has a detrimental impact on the relationship between professional development opportunities and organisational commitment. The results of the study support the hypothesis (t = 0.814, p = 0.416), hence H7 is not accepted.

*Moderation Analysis*

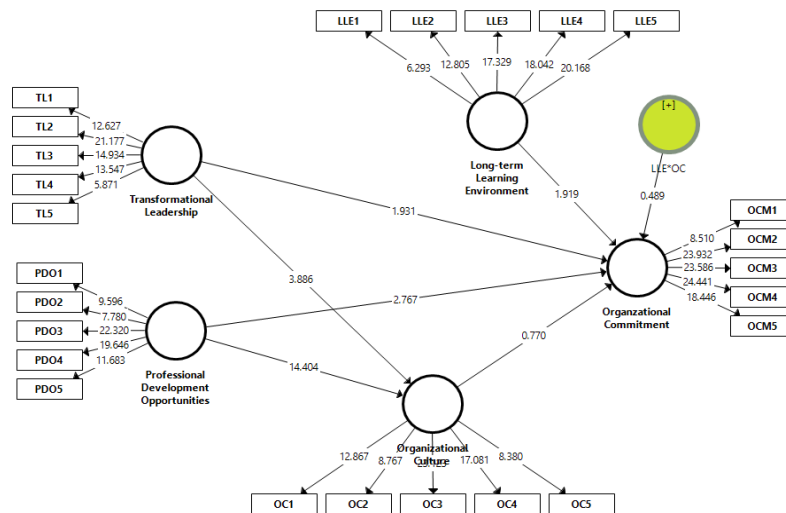
The subsequent step in the direct path connections involved examining the impact of peer review on the central model. It has been previously determined that there are two types of moderators: qualitative and quantitative variables (Fiedler & Sivo, 2015). One common approach to examine the moderating effect in structural models is by utilising an interaction effect, despite the availability of other methods. Moreover, this changes a newly established structural connection in the structural route model (Fan et al., 2016). A significant deviation from zero is expected, indicating a lack of support for the null hypothesis (Fiedler & Sivo, 2015). The findings from the moderation analysis can be found in Table 7. Long-term learning environment moderates organisational commitment and organisational culture (b = 0.033, p = 0.625).

**Table 8**

*Moderation Effects*

Hypothesis	Construct	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H8	LLE*OC -> Organizational Commitment	0.033	0.489	0.625





**Figure 4:** Long-Term Learning Environment Moderates the Relationship Among Organizational Culture and Organizational Commitment.

### Discussion

This study delves into the intricate relationship between transformational leadership, organisational commitment, long-term learning environments, and organisational culture among university lecturers in China. The study aims to uncover the fundamental relationships between variables and elucidate the implications for enhancing organisational commitment within academic settings by investigating these dynamics.

Transformational leadership is crucial for fostering organisational commitment due to its visionary, inspiring, and empowering characteristics. Prior studies have emphasised the favourable influence of transformational leadership on employee engagement, motivation, and performance. The study anticipates a positive correlation (H1) between transformational leadership and organisational commitment among Chinese university lecturers.

Furthermore, the study delves into the complex areas of mediation and moderation. The hypothesis suggests that transformational leadership and organisational commitment may be more closely connected in the presence of a supportive long-term learning environment. The text highlights that transformational leadership can have a stronger positive impact on commitment when combined with a supportive learning environment. Research suggests that organisational culture plays a role in connecting organisational commitment and transformational leadership by influencing cultural norms and values in higher education.

This research contributes to the theoretical foundations of leadership and organisational behaviour, providing valuable data for Chinese educational institutions. Guided by the findings, targeted initiatives and policies can promote inclusive corporate cultures, supportive learning environments, and transformative leadership behaviours.

Within the realm of Chinese higher education, the study's findings provide guidance for enhancing employee engagement, dedication, and institutional efficacy.

## Implications

### *Theoretical Implications*

This study's findings hold significant theoretical implications for leadership, organisational behaviour, and educational management, particularly within the context of Chinese higher education. Enhancing theories on transformative leadership and its influence on organisational commitment among Chinese university teachers makes a noteworthy contribution. An empirical study of this connection can strengthen and enhance existing theories, providing valuable insights into transformative leadership within organisational culture. The study enhances theoretical understanding by examining how contextual factors impact leadership outcomes and exploring the moderating influence of long-term learning contexts. This profound comprehension, recognising the diverse aspects of leadership effects in particular organisational contexts, enhances modern concepts. Proposing organisational culture as an intermediary between transformational leadership and organisational commitment, exploring how commitment is formed by leadership actions within cultural contexts, contributes to the advancement of organisational behaviour theories. These theoretical advancements enable the development of improved models for a better understanding of leadership dynamics and educational administration in Chinese higher education.

### *Practical Implications*

The study's practical implications offer valuable suggestions for leaders and educational institutions aiming to enhance organisational commitment among Chinese university professors. It suggests prioritising leadership development programmes that cultivate inspirational, supportive, and visionary attitudes in academic leaders. These programmes can be executed as specialised workshops or mentorship initiatives. The study advocates for investing in lecturers' ongoing education to amplify the positive impact of leadership. Moreover, fostering inclusive and values-driven organisational cultures is becoming increasingly crucial, emphasising initiatives that promote collaboration, shared values, and clear communication within educational institutions. Implementing these suggestions could potentially boost lecturers' commitment levels, fostering a more engaged academic community, enhancing institutional quality, and contributing to the growth of China's educational system.

## Limitations and Future Directions

### *Limitations*

This study sheds light on the intricate relationships among transformative leadership, organisational commitment, and environmental factors in Chinese university settings, despite certain limitations. Due to the restricted sample of Chinese university lecturers, concerns arise regarding its applicability to other cultural contexts. Due to the study's cross-

sectional design, establishing causality is challenging, highlighting the importance of longitudinal research. Self-reported measures and challenges in measuring organisational culture require careful interpretation of findings and enhanced methodology.

Despite these limitations, the study offers valuable insights into organisational processes. The text emphasises the impact of transformational leadership on enhancing engagement among Chinese university instructors and suggests prioritising leadership development and continuous learning environments. Promoting inclusive organisational cultures is essential. The study's findings suggest potential enhancements in leadership practices and organisational development programmes within Chinese higher education, despite interpretive limitations due to restrictions.

#### *Future Directions*

The study provides valuable insights into the dynamics of commitment and leadership at Chinese colleges, while also suggesting areas for future research. Using qualitative methods alongside cross-cultural and longitudinal studies provides a more profound understanding of the factors influencing commitment. Exploring unknown factors through multilevel analysis could enhance our understanding. Future studies on intervention may validate the findings, impacting leadership initiatives and organisational dynamics within and beyond Chinese universities.

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