Change management strategies and organizational effectiveness in Chinese universities

Yang, Jia Xun ✉

Graduate School, Lyceum of the Philippines University – Batangas, Philippines

Abstract

The primary objective of this research is to analyze how effective Chinese universities are in regard to the change management techniques they have implemented. By using literature reviews, theoretical discussions, and empirical case analysis, it provides a comprehensive summary of the research status of change management in domestic and foreign universities. It also analyzes the selection, implementation, and evaluation methods of change management strategies in universities, as well as the evaluation status, issues, and strategies for improving organizational effectiveness. The descriptive research design and methods include the analysis of the relationship between change management and organizational effectiveness, quantitative analysis of variable correlations, exploration of causal relationships, and the selection, description, analysis, and summary of empirical cases. This research aims to improve organizational performance by broadening our knowledge of the connection between strategies for managing change, university evaluation in China and providing theoretical and practical guidance for change administration at universities.

Keywords: change management strategies, organizational effectiveness, higher education, research design

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1. Introduction

It is widely recognized in the academic community that Chinese universities, as core institutions of higher education, play an important role in social progress and national development. However, as society changes and develops, Chinese universities are also facing the challenge of management change. For Chinese universities, how to adapt to the change, improve management, and enhance the effectiveness of organizational effectiveness has become an important topic that needs to be studied urgently. Currently, change management strategies have attracted widespread attention in the academic community as a management method and tool. The importance of change management strategies is self-evident, as they can help universities cope with the challenges of change, improve management effectiveness, and promote the sustainable development of universities. The application of change management strategies has been very common in universities, but there is relatively little research on change management strategies in Chinese universities. Therefore, this study will be devoted to exploring change management strategies in Chinese universities, with a view to providing theoretical guidance and practical reference for Chinese universities in change management.

At the same time, organizational effectiveness, as one of the core competitiveness of Chinese universities is of great significance to the development of universities. The effectiveness of organizational effectiveness is an important index to evaluate organizational effectiveness, which can reflect whether organizational effectiveness can give full play to its role and provide strong support for the development of colleges and universities. However, at present, there are fewer studies on organizational effectiveness in Chinese colleges and universities, and there is a lack of systematic and in-depth discussion. Therefore, this study will investigate and analyze the effectiveness of organizational effectiveness in Chinese colleges and universities, in order to provide a basis and reference for Chinese colleges and universities to improve the effectiveness of organizational effectiveness.

Objectives of the study - The purpose of this study is to assess the relationship between efficient change management strategies and organizational effectiveness in China and to present a proposal for optimizing organizational effectiveness. Specifically, this study present different ages, genders, school types and professional backgrounds in the context of change in Chinese universities; identify the change management strategies in Chinese universities; analyse the organizational effectiveness; test the differences they make in organizational effectiveness to find the strategies that are most appropriate for different contexts; test the relationship between change management strategies and organizational effectiveness in Chinese universities.

2. Literature review

Change management strategies is a management process that involves a series of changes and adjustments within or across organizations in response to existing organizational structures, processes, cultures and other aspects (Tawaha, 2021). It aims to improve and optimize the organization to adapt to the changes and challenges of the internal and external environment, so as to achieve long-term organizational development and competitive advantage（Tian, 2016). Ding (2022) argues that planned change refers to the process of consciously and systematically planning and implementing change within an organization. It is usually based on the organization's own goals and strategies, and after sufficient research and analysis, a series of change programs and measures are formulated, and gradually guides and promotes change within the organization. Cottingim (2018) believes that unplanned change, on the other hand, refers to the response that an organization takes when faced with emergencies, external pressures, or unpredictable changes. This type of change tends to be more urgent and rapid, and is generally not adequately prepared or planned for, but still requires corresponding adjustments and adaptations within the organization.

Research shows that the goal of change management is to achieve organizational transformation and enhancement in the process of change, managers need to conduct a comprehensive analysis and assessment of the organization's internal affairs, determine the direction and focus of change, formulate change strategies and plans, and gradually implement and promote change. At the same time, managers also need to pay attention to problems and challenges that may arise during the change process and take timely measures to adjust and solve them. Foster (2018) shows that the implementation of change management needs to rely on effective internal organizational communication and collaboration mechanisms. In the change process, managers at all levels need to fully communicate and coordinate with all departments and employees to participate in the change process, eliminate potential resistance and resistance, and ensure the smooth implementation of change. At the same time, Pertilla (2018) also believes that managers also need to establish an effective change assessment and feedback mechanism, timely access to information and feedback during the change process, and continuously optimize and adjust the change strategy and plan.

Ĥesearch has shown that the success of change management often depends on the active participation and facilitation of leaders. As the backbone of organizational change, leaders need to possess a certain level of change management capability and leadership in order to lead the organization towards the path of change success. They need to have the strategic vision and comprehensive ability to identify and grasp the opportunities and challenges of change, as well as good communication and motivational skills to influence and motivate members of the organization to actively participate in the change. Overall, the above research suggests that change management theory also includes a number of change management approaches and engineering models. Geek proposed the Ten-Step Model of Change Management, in which he argues that change management requires ten steps, including identifying the drivers of change, recognizing the goals of change, and developing a strategy for change. The model emphasizes the systematic and comprehensive nature of change management and provides detailed methodological guidance.

Organizational effectiveness is the ability of an organization to achieve its goals and mission. In a special organization such as a university, the connotation of organizational effectiveness includes several aspects. First, Richardson (2018) argues that the organizational effectiveness of HEIs is closely related to their main goal of producing excellent human resources. Through effective educational and research activities, HEIs contribute to the development of the country and society by providing socially competitive and innovative graduates. In addition, Ru and Yan (2018) said that organizational effectiveness of HEIs also involves the administrative and service capacity of the institution. HEIs need to maintain good administration and provide efficient student services and staff welfare to ensure smooth operation (Turner, 2018).

In measuring the organizational effectiveness of universities, the following dimensions can be considered. First, Verhagen (2018) argues that teaching efficacy, i.e., the quality and effectiveness of teaching and learning in higher education can be measured by indicators such as students' academic performance, employment, and graduates' evaluation of school education. Second is Yang (2018) scientific research efficacy, i.e., the innovative capacity and academic impact of university research. Research efficacy can be assessed by the number and quality of published papers, the acquisition of research projects, and the acquisition of academic awards. In addition, the social service effectiveness of colleges and universities can also be examined, that is, the degree of contribution of colleges and universities to society. Social service effectiveness can be assessed through the cooperation between universities and enterprises, governments, social organizations, etc., social influence and social responsibility.

Research has shown that college organizational effectiveness is the ability of colleges and universities to achieve their goals and missions, which involves a number of aspects such as teaching effectiveness, research effectiveness and social service effectiveness. In assessing and improving the organizational effectiveness of universities, it is necessary to take into account the specific environment and conditions of the university and to maintain continuous efforts and innovations over a long period of time. Overall, the above studies show that the implementation of change management strategies is of great significance to change management in Chinese

universities. This study provides theoretical and practical guidance for change management in colleges and universities by proposing appropriate methods and suggestions for strategy selection, implementation and effect evaluation. Through the implementation of scientific change management strategies, colleges and universities can effectively cope with the challenges of change, improve organizational effectiveness, and achieve sustainable development.

3. Methods

This research utilized the quantitative – comparative - correlational research design. Quantitative-comparative-correlational research design is a type of research methodology with a combination of three designs: quantitative research, comparative research, and correlational research. Quantitative research was used to present the data numerically to describe and explain phenomena. Comparative research, on the other hand was used to compare two or more groups or variables and identify their similarities and differences using the profile of the respondents. The participants were faculty members in Northwest Minzu University China. The research used total of 298 random samples with the proportionate stratified technique to select participants from the total population of faculty members at the university.

For this research into Change Management Strategies and Organizational Effectiveness in Chinese Universities, a thorough three-part questionnaire was the primary research instrument. The first part of the questionnaire was designed to collect basic demographic information from respondents, such as their age, marital status, education level, employment position, and sex. In Part II, several factors were evaluated, such as school strategy and managerial conduct, to understand better respondents' perspectives on change management techniques inside the institution. Here, participants rated how much they agreed with a set of statements on a 1-to-4 scale. Finally, Part III focused on assessing the respondents' views on the success of their respective Higher Education Institutions (HEIs) in China, considering factors such as role clarity, compensation, training and development, values, and the quality of executive leadership. Respondents used the same 4-point scale used in Part II to indicate their level of agreement with statements in each category. This study's data collection instrument underwent rigorous validation to guarantee validity and reliability.

Questionnaire was administered via Google Form. The researcher created a questionnaire divided into three parts. To ensure that different demographic groups were adequately represented, 298 random samples were picked using the proportional stratified method. There were three distinct sections of the questionnaire. The first section collected basic information: gender, marital status, age, length of service at current employment, and professional rank. This part aimed to draw up a profile of the responders. In Part 2, different approaches to change management were rated on a scale from 0 to 4. The aspects covered include organizational atmosphere, performance evaluation, and management techniques. Section III evaluated the organizational effectiveness of faculty members in Chinese HEIs. Respondents evaluated statements about role clarity, compensation, learning and development, values, and executive leadership n the same 4-point scale

In this study, 298 Chinese university faculty members were selected as a survey sample, and SPSS 22.0 was used to conduct reliability and validity analyses, regression analyses, correlation analyses, and mediation effect analyses to explore change management strategies and organizational effectiveness in Chinese universities. Research on Change Management Strategies and Organizational Effectiveness in Chinese Colleges and Universities followed ethical guidelines and did not violate the participants' right to privacy or confidentiality. All research was conducted by the highest standards of ethics, with no compromises made to the originality or accuracy of the data. Research was conducted objectively, fairly, and transparently, avoiding prejudice and conflicts of interest wherever possible.

In addition, the researcher acted ethically by not violating the copyrights, patents, or other intellectual property rights of others, guaranteeing the integrity and conformity of the findings. The researchers also tried to minimize any adverse effects on cultural norms by considering their findings' broader societal context and practical relevance. All applicable ethical standards were upheld to ensure the scientific validity, objectivity, and

trustworthiness of the findings presented in this dissertation.

4. Results and discussion

Table 1 shows the distribution of respondents by sex, marital status, length of service in the current education institution (unit), and job level. Majority of the respondents are male and only 45.0% of the respondents are female. This shows that there are slightly more males than females among the respondents. Most respondents are married, this implies that there are more married than unmarried respondents among the respondents.

Table 1

Percentage Distribution of the Respondents Profile

Sex	Frequency	Percentage (%)
Male	164	55.0
Female	134	45.0
Marital Status		
married	169	56.7
unmarried	129	43.3
Age		
under 25 years old	67	22.5
25-30 years old	40	13.4
31-40 years old	75	25.2
41-50 years old	72	24.2
over 51 years old	44	14.8
Length of service in the current education institution (unit)		
less than 1 year	9	3.0
1-3 years	16	5.4
4-7 years	122	40.9
8-15 years	106	35.6
more than 15 years	45	15.1
Job level		
senior management personnel	48	16.1
middle management personnel	113	37.9
junior management personnel	137	46.0

The age distribution of most of the respondents is: under25 years old 22.5%, 25-30years old 13.4%, 31-40years old 25.2%, 41-50years old 24.2 % and over 51 years old 14.8%. This indicates a wide age range of the respondents. The length of service of the majority of the respondents in their current educational institutions (organizations) is: less than 1 year 3%, 1-3 years 5.4%, 4-7 years 40.9%, 8-15 years 35.6%, more than 15 years 15.1%. This shows that the majority of the respondents have served between 4 to 7 years and 8 to 15 years in their present educational institutions (organizations). The job level of the majority of the respondents is as follows: Senior managers (16.1%), middle managers (37.9%), and junior managers (46.0%). This shows that among the respondents, junior managers were the most numerous, followed by middle managers and senior managers the least. This study shows the distribution of respondents in terms of gender, marital status, age, years of service and job level. There were slightly more males than females, more married than unmarried, the age range of the respondents was wide and most of the respondents had years of service in their current educational institutions ranging from 4-7 years and 8-15 years, with the highest number of junior managers and the lowest number of senior managers.

Table 2 presents the Summary Table on Change Management Strategies ratings with a combined mean of: 2.81 indicating that the respondents generally agree, which means that the respondents believe that the strategies adopted by the organization in change management are effective. Change management is one of the key factors for organizational success and it involves changing the attitudes, behaviors and values of the members of the organization in order to adapt to the organizational changes. Effective change management strategies can help the organization to better cope with the changes in the external environment and improve the competitiveness

and adaptability of the organization. The results show that the strategies adopted by the organization in change management are effective and can be recognized by its members. In order to further improve the effectiveness of change management, the organization should continue to pay attention to the attitudes and needs of its members and adopt appropriate strategies and measures to promote members' acceptance of and participation in change, so as to provide a solid foundation for the organization's long-term development.

Table 2

Summary Table on Change Management Strategies

	Weighted Mean	Verbal Interpretation	Rank
1. School strategy	2.86	Agree	1.5
2. Managerial Behavior	2.86	Agree	1.5
3. Managerial behavior (line supervisor)	2.80	Agree	4
4. Organizational structure optimization	2.71	Agree	6
5. performance appraisal	2.79	Agree	5
6. Organizational climate	2.83	Agree	3
Composite Mean	**2.81**	**Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

Management behavior is one of the important factors for organizational success and involves the leadership of the leader and the ability of the management team to collaborate. Effective management behaviors increase the efficiency and effectiveness of the organization and promote the motivation and satisfaction of the members of the organization. Meanwhile, school strategy is also one of the key factors of organizational success, which can help the organization to better respond to the changes in the external environment and competitive pressures, and improve the competitiveness and adaptability of the organization. The results show that the organization performs very well in terms of management behaviors and school strategies, and is able to receive recognition and praise from its members. In order to further improve the efficiency and effectiveness of the organization, the organization should continue to focus on the development and implementation of management behaviors and school strategies, and strengthen team building and leadership training, so as to improve the cohesion and cooperation of the organization, and provide a solid foundation for the long-term development of the organization.

Organizational climate is one of the important factors for organizational success and involves the degree of cooperation and mutual support among organizational members. A good organizational climate can increase the motivation and satisfaction of members and contribute to the stability and development of the organization. The results show that the organization performs well in terms of organizational climate and is able to receive recognition and praise from its members. In order to further improve the efficiency and effectiveness of the organization, the organization should continue to pay attention to the creation and maintenance of the organizational climate, strengthen team building and communication, and promote cooperation and mutual support among members, so as to provide a solid foundation for the long-term development of the organization.

Line supervisors are the middle link in the management hierarchy of an organization, and their management behavior has an important impact on the operation of the organization and the development of its members. Effective management behavior can promote coordination and cooperation within the organization and improve the efficiency and effectiveness of the organization. However, if there are deficiencies in the management behaviors of line supervisors, they may have a negative impact on the operation and development of the organization.

The results show that the respondents hold a certain degree of recognition and satisfaction with the management behaviors of line supervisors, but there is also room for improvement. In order to improve the efficiency and effectiveness of the organization, line supervisors should continue to strengthen their management ability and leadership, focus on team building and communication, stimulate members' motivation and creativity, and provide a solid foundation for the long-term development of the organization. At the same time, the organization should also strengthen the training and management of line supervisors, and provide the necessary

work support and resources to help them better perform their managerial roles and make greater contributions to the success of the organization (Douglas et al., 2022).

Performance appraisal is one of the important aspects of organizational management, which can help organizations to assess the performance and performance of members, identify strengths and weaknesses, provide feedback and guidance to members, and promote the development of members and the progress of the organization. However, if the performance appraisal system is flawed, it may have a negative impact on the operation and development of the organization. The survey results show that respondents hold a certain degree of recognition and satisfaction with the organization's performance appraisal system, but there is still room for improvement. In order to improve the efficiency and effectiveness of the organization, the organization should continuously strengthen the scientific and fairness of the performance appraisal system, focus on the development and updating of the appraisal standards and procedures, and ensure that the appraisal results can truly reflect the members' work performance and performance. At the same time, the organization should also strengthen the training and education of its members and increase their awareness of and participation in performance appraisal, so as to provide a solid foundation for the long-term development of the organization.

Organizational structure is the basis for the operation of an organization, and an effective organizational structure can improve the efficiency and effectiveness of an organization and promote its stability and development. However, if there are irrationalities in the organizational structure, it may have a negative impact on the operation and development of the organization. The results of the survey show that respondents believe that the performance of organizations in optimizing their organizational structure needs to be improved. In order to improve the efficiency and effectiveness of the organization, the organization should pay more attention to and optimize the organizational structure, focus on process design and division of responsibilities, and improve the organization's ability to coordinate and cooperate, so as to provide a solid foundation for the long-term development of the organization. At the same time, the organization should also actively listen to the opinions and suggestions of its members, strengthen the training and education of its members, increase their awareness of and participation in the optimization of the organizational structure, and jointly promote the progress and development of the organization.

Table 3

Summary Table on Organizational Effectiveness of Teachers in the HEIs in China

	Weighted Mean	Verbal Interpretation	Rank
1. Role Clarity	2.83	Agree	1
2. Remuneration	2.79	Agree	2.5
3. Learning and Development	2.73	Agree	4
4. Values	2.79	Agree	2.5
5. Executive Leadership	2.69	Agree	5
Composite Mean	**2.77**	**Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

Table 3 presents Summary Table on Organizational Effectiveness of Teachers in the HEIs in China, with a composite mean of: 2.77, indicating that respondents generally agreed. In Likert scales, the response options are usually categorized into four levels, which are strongly disagree, neutral, agree, and strongly agree. Of these, agree and strongly agree are considered positive ratings, while strongly disagree and disagree are considered negative ratings. In this study, the composite mean was 2.77, which means that most of the respondents gave a positive evaluation of the teachers' performance in organizational effectiveness and they agreed or strongly agreed with the evaluation.

Role Clarity refers to how clear a teacher is about his or her role and responsibilities in the classroom. If the teacher's role position is clear, he or she can better grasp the key points and difficult points of teaching, and can also better stimulate the enthusiasm and participation of students. Therefore, Role Clarity has a significant impact on the quality and effectiveness of teaching. This high rating indicates that respondents believe that

teachers perform well in Role Clarity, are able to clearly grasp their teaching responsibilities, and are able to effectively guide students in their learning and thinking. This has positive implications for improving the quality of teaching and student learning. At the same time, it also provides valuable reference information for further improving teachers' organizational effectiveness.

Remuneration refers to teachers' remuneration package and Values refers to teachers' values and moral values. If the teachers' remuneration package can be rationalized and at the same time the teachers' values and moral values can be recognized by the students, this will have a positive impact on the learning outcomes and growth of the students. These two high ratings indicate that the respondents believe that teachers perform well in Remuneration and Values, that the remuneration package is relatively reasonable, and that teachers' values and moral values are recognized by students. This provides a favorable guarantee for improving the quality of teaching and student learning outcomes. At the same time, it also provides valuable reference information for further improving teachers' organizational effectiveness (Wang, 2023).

Learning and development refers to teachers' assessment, feedback and guidance on students' learning outcomes during the teaching process, as well as teachers' own professional development and learning progress. If teachers can effectively guide students to learn and think, and can give timely feedback and guidance to students, it will help to improve students' academic performance and interest in learning. Meanwhile, teachers' professional development and learning progress will also have a positive impact on the quality and effectiveness of teaching. The results of this evaluation indicate that respondents believe that there is room for improvement in teachers' learning and development. Teachers need to further strengthen the assessment and feedback of learning outcomes, pay more attention to students' individual needs, and provide more targeted guidance and assistance. At the same time, teachers also need to continue to learn and make progress to improve their professionalism and educational standards to better meet students' learning needs(Yang et al., 2023).

Executive Leadership refers to a teacher's ability to enforce student behavior and discipline in the classroom, as well as his or her ability to manage the pace of instruction. If teachers can effectively maintain classroom discipline, regulate students' behavior, and rationally arrange the teaching schedule, it will help create a good learning atmosphere and ensure the quality of teaching. Although the result of this evaluation is relatively low, in fact, teachers' performance is still recognized by the respondents(Wu & Liu, 2023). Teachers need to make further improvements in Executive Leadership to better maintain classroom discipline and regulate student behavior, as well as to pay more attention to the rational arrangement of teaching progress in order to create a better learning environment and improve teaching quality.

Table 4

Difference of Responses on Change Management Strategies When Grouped According to Profile

Sex	λ^2c / U	p-value	Interpretation
School strategy	10590	0.590	Not Significant
Managerial Behavior	10720	0.716	Not Significant
Managerial behavior (line supervisor)	10770.5	0.768	Not Significant
Organizational structure optimization	10057	0.208	Not Significant
performance appraisal	10911	0.917	Not Significant
Organizational climate	9738	0.091	Not Significant
Marital Status			
School strategy	10378	0.478	Not Significant
Managerial Behavior	10519.5	0.603	Not Significant
Managerial behavior (line supervisor)	10631.5	0.715	Not Significant
Organizational structure optimization	10395	0.492	Not Significant
performance appraisal	10836	0.930	Not Significant
Organizational climate	9496.5	0.056	Not Significant

Age			
School strategy	1.105	0.893	Not Significant
Managerial Behavior	2.65	0.618	Not Significant
Managerial behavior (line supervisor)	4.324	0.364	Not Significant
Organizational structure optimization	6.903	0.141	Not Significant
performance appraisal	0.454	0.978	Not Significant
Organizational climate	8.962	0.062	Not Significant
Length of service in the current education institution (unit)			
School strategy	1.993	0.737	Not Significant
Managerial Behavior	1.997	0.736	Not Significant
Managerial behavior (line supervisor)	1.342	0.854	Not Significant
Organizational structure optimization	8.228	0.084	Not Significant
performance appraisal	6.234	0.182	Not Significant
Organizational climate	8.145	0.086	Not Significant
Job Level			
School strategy	1.082	0.582	Not Significant
Managerial Behavior	1.597	0.45	Not Significant
Managerial behavior (line supervisor)	1.097	0.578	Not Significant
Organizational structure optimization	0.725	0.696	Not Significant
performance appraisal	3.843	0.146	Not Significant
Organizational climate	0.309	0.857	Not Significant

Table 4 shows the comparison of responses on change management strategies when grouped according to profile. It was observed that there was no significant difference when grouped according to profile because the computed p-values were all greater than the alpha level. This means that the responses do not differ statistically and implies that they have the same level of assessment.

As can be seen from the table, there is no significant difference in the responses to the change management strategies when grouped according to situation. The calculated p-values are all greater than the alpha level, which means that the responses are not statistically significantly different, and also means that they have the same level of assessment. This means that the responses for change management strategies were not significantly affected regardless of the situation. This situation may indicate that the implementation of the change management strategy is independent of the situation or that the effectiveness of the implementation of the strategy is relatively stable across situations. However, this does not mean that the strategy is completely problem-free or does not need to be improved. There may be other factors, such as the way it is implemented and the quality of the personnel, that can affect the effectiveness of the implementation of the change management strategy. Therefore, further research and analysis is needed to determine what factors may have an impact on the implementation of the change management strategy and how the strategy can be improved and optimized.

In conclusion, based on the data and analysis presented in the table, there is insufficient evidence at this time to suggest that there are significant differences in the responses to the change management strategy between contexts. Further research and exploration of other possible influencing factors is needed.

Table 5

Difference of Responses on Organizational Effectiveness of Teachers in the HEIs in China When Grouped

According to Profile

Sex	$\lambda^2c_{/U}$	p-value	Interpretation
Role Clarity	10179	0.273	Not Significant
Remuneration	10758	0.755	Not Significant
Learning and Development	10078	0.217	Not Significant
Values	10455	0.468	Not Significant
Executive Leadership	10375	0.406	Not Significant

Marital Status			
Role Clarity	9781	0.127	Not Significant
Remuneration	10536	0.619	Not Significant
Learning and Development	10376	0.475	Not Significant
Values	10267	0.387	Not Significant
Executive Leadership	10372.5	0.472	Not Significant
Age			
Role Clarity	1.696	0.791	Not Significant
Remuneration	2.322	0.677	Not Significant
Learning and Development	3.378	0.497	Not Significant
Values	4.293	0.368	Not Significant
Executive Leadership	3.22	0.522	Not Significant
Length of service in the current education institution (unit)			
Role Clarity	2.836	0.586	Not Significant
Remuneration	2.761	0.599	Not Significant
Learning and Development	4.131	0.389	Not Significant
Values	7.183	0.127	Not Significant
Executive Leadership	3.425	0.489	Not Significant
Job Level			
Role Clarity	1.728	0.421	Not Significant
Remuneration	1.979	0.372	Not Significant
Learning and Development	0.475	0.788	Not Significant
Values	1.344	0.511	Not Significant
Executive Leadership	1.28	0.527	Not Significant

Legend: Significant at p-value < 0.05

Table 5 shows the comparison of responses on organizational effectiveness of teachers in the HEIs in China when grouped according to profile. It was observed that there was no significant difference when grouped according to profile because the computed p-values were all greater than the alpha level. This means that the responses do not differ statistically and implies that they have the same level of assessment. The p-value is an important indicator used in statistics to determine whether two sets of data are significantly different. If the p-value is greater than the alpha level, it is usually considered that there is no significant difference. In this table, all p-values are greater than the alpha level, which means that there is no significant difference in the responses of Chinese college teachers to organizational effectiveness in various situations. Since the p-value is greater than the alpha level, it can conclude that there is no significant difference in the responses of Chinese university teachers to organizational effectiveness in all situations. This means that they assess the same level of organizational effectiveness, whether in teaching, research, social service or cultural heritage. Since there is no significant difference, we can infer that when Chinese university teachers assess organizational effectiveness, they assess it at the same level. This may indicate that they have similar methods, criteria and understanding in assessing organizational effectiveness. All in all, there is no significant difference in the responses of Chinese university teachers to organizational effectiveness in all situations, which implies that they are assessed at the same level.

Table 6

Relationship Between Change Management Strategies and Organizational Effectiveness of Teachers in the HEIs

in China

School strategy	rho	p-value	Interpretation
Role Clarity	-0.036	0.541	Not Significant
Remuneration	0.005	0.929	Not Significant
Learning and Development	0.013	0.820	Not Significant
Values	0.035	0.553	Not Significant
Executive Leadership	0.062	0.286	Not Significant
Managerial Behavior			
Role Clarity	-0.04	0.496	Not Significant
Remuneration	0.069	0.236	Not Significant
Learning and Development	-0.037	0.523	Not Significant
Values	0.05	0.387	Not Significant

Executive Leadership	0.103	0.077	Not Significant
Managerial behavior (line supervisor)			
Role Clarity	0.037	0.529	Not Significant
Remuneration	0.042	0.470	Not Significant
Learning and Development	-0.03	0.611	Not Significant
Values	0.023	0.699	Not Significant
Executive Leadership	-0.074	0.202	Not Significant
Organizational structure optimization			
Role Clarity	-0.042	0.468	Not Significant
Remuneration	-0.013	0.821	Not Significant
Learning and Development	0.064	0.270	Not Significant
Values	0.03	0.602	Not Significant
Executive Leadership	0.106	0.068	Not Significant
performance appraisal			
Role Clarity	0.079	0.174	Not Significant
Remuneration	-0.01	0.866	Not Significant
Learning and Development	0.056	0.335	Not Significant
Values	0.003	0.957	Not Significant
Executive Leadership	0.034	0.559	Not Significant
Organizational climate			
Role Clarity	-0.104	0.074	Not Significant
Remuneration	0.016	0.779	Not Significant
Learning and Development	0.011	0.854	Not Significant
Values	-0.016	0.784	Not Significant
Executive Leadership	0.056	0.335	Not Significant

Table 6 illustrates the association between change management strategies and organizational effectiveness of teachers in the HEIs in China. It was observed that the computed rho-values indicates almost negligible indirect correlation and the resulted p-values were all greater than the alpha level. This means that there was no significant relationship exists. The association between change management strategies and organizational effectiveness among Chinese university teachers. By calculating the rho values, the researcher observed that the rho values were relatively small, which indicated a weak correlation between the two. In addition, all the p-values are greater than the alpha level, which further supports the conclusion that there is no significant correlation between the two. Indirect correlation in this context refers to correlations that arise through the indirect influence of other factors (e.g., teachers' personal characteristics, work environment, etc.). In this case, although the direct correlation between change management strategies and organizational effectiveness is weak, there may be some other factors that are correlated with both change management strategies and organizational effectiveness, thus establishing an indirect correlation between the two. However, this indirect correlation is almost negligible in terms of the calculated rho values. In summary, based on the table and the calculated results, it can be concluded that there is no significant correlation between change management strategies and organizational effectiveness among Chinese university teachers, and even if there is some indirect correlation, its effect is almost negligible.

5. Conclusions and recommendations

The majority of respondents are male, more are married than unmarried, the age range is large, and most of the respondents have served in their current educational institutions (organizations) for between 4 to 7 and 8 to 15 years, with middle managers being the most numerous, junior managers the next most numerous, and senior managers the least numerous. There is no significant correlation between change management strategies and organizational effectiveness among Chinese university teachers, and even if there is an indirect correlation, its effect is almost negligible. there is no significant difference between Chinese university teachers' responses to organizational effectiveness in all situations, which implies that they are assessed at the same level. Respondents were satisfied with three aspects of change management strategies, organizational culture and leadership.

In future surveys, efforts be made to ensure that the respondents are balanced in terms of age, gender, marital status, years of service, and management level, so as to more accurately reflect the perceptions and

attitudes of the entire Chinese university teaching force towards change management strategies. In addition, school administrators need to pay attention to teachers of different age groups, years of service and management levels, and provide them with appropriate career development and training opportunities to improve their management skills and abilities. Although the results of the current study show that there is no significant correlation between change management strategies and organizational effectiveness, it does not mean that change management strategies do not have any effect on organizational effectiveness. Therefore, school administrators still need to pay attention to the development and implementation of change management strategies, and provide appropriate training and support to teachers in order to improve their adaptability and management skills, thus improving organizational effectiveness. Although there was no significant difference in the respondents' responses to organizational effectiveness, this does not mean that all teachers were assessed at the same level. School administrators need to learn more about the differential needs and feedback of teachers and provide them with individualized management and support to meet the needs and expectations of different teachers to improve organizational effectiveness and teaching quality. Although respondents were satisfied with the three areas of change management strategies, organizational culture and leadership, it does not mean that school administrators can relax their attention and improvement in these areas. On the contrary, school administrators need to continuously improve and optimize change management strategies, organizational culture and leadership in order to adapt to the changing educational environment and market demands, and to improve the management level and efficiency of their schools. School administrators may develop appropriate change management strategies to improve organizational effectiveness and teaching quality. In addition, school administrators need to focus on the professional development and training of teachers to improve their management skills and competencies and to contribute to the development and management of their schools.

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