




Impact of hierarchical, horizontal and team-based organisational structures on full time teachers' performance in Chinese secondary schools

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ABSTRACT

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This research aimed to investigate the impact of various management structures on the teaching performance of full-time Chinese secondary school teachers and, consequently, on the education quality. Different management structures, including hierarchical, horizontal, and team-based were explored for their contributions to students' learning opportunities. A quantitative approach was employed, analyzing data from 50 full-time Chinese secondary school teachers. The findings were interpreted using relevant statistical methods to establish the relationship between management structures and teacher performance. The study reveals that the most effective and recommended management structure involves amalgamating the strengths inherent in these different structures to create a hybrid system that is responsive to the needs of teachers. This hybrid approach is shown to have a positive impact on teacher performance. The findings of this research hold significant practical implications. Understanding the effects of management structure empowers policymakers and educational leaders to design and implement effective management strategies that support and empower teachers. This, in turn, can lead to enhanced teacher performance, improved education quality, increased job satisfaction, and motivation among educators, ultimately resulting in better student outcomes. The study thus highlights the Chinese government's emphasis on education and serves as a reference for policy adjustments to improve management efficiency.

Contribution/Originality: This study's contribution lies in inspiring full-time teachers, particularly in China's public education system, to devise new ways of recognizing students' diverse learning styles, through effective and sensitive teaching and learning practices, flexible instructional planning, and diversified teaching methods.

1. INTRODUCTION

The organizational structure of schools is critical in defining the professional environment for educators in the ever-changing world of education. Among the numerous organizational frameworks, two prominent structures, namely horizontal and hierarchical, have received a lot of attention because of their potential effects on teacher performance. The subtle dynamics of horizontal and hierarchical organizational structures, as well as their unique effects on the performance of full-time teachers in Chinese secondary schools, are explored in this study.

Understanding the impact of organizational structures on teacher performance is critical in the context of China's secondary education system, which has grown and transformed dramatically in recent years. As educational institutions seek to adapt to changing student and societal needs, organizational structure becomes an important component impacting teachers' daily experiences and effectiveness. The choice between a horizontal and hierarchical structure can influence communication routes, decision-making processes, and overall professional satisfaction, all of which can influence teacher performance. To satisfy the demands of a fast-expanding society, China's education system has undergone significant modifications. The historical norm has been a hierarchical structure with clear lines of power and centralized decision-making. The rise of alternative organizational structures, such as horizontal arrangements that emphasize collaboration and decentralized decision-making, offers an appealing alternative.

A variety of factors influence the performance of transformational leaders, including both internal and external elements within the educational landscape. These aspects of the educational environment have a direct impact on teachers performance as well to effect substantial change in their schools (Senathirajah, Almonawer, Althonayan, Alainati, & Al-Hammad, 2023). In this environment, the performance of full-time teachers, who are the backbone of the educational system, is critical. Teacher success is complex, including not only academic accomplishments but also job happiness, professional development, and overall well-being. The organizational structure can either operate as an encouragement or a barrier in creating an environment conducive to optimal teacher performance.

1.1. Problem Statement

Teacher evaluation and monitoring in higher education systems have been topics of study and debate (Mohammadi, 2021). In terms of teacher self-efficacy, verbal persuasion refers to encouragement, performance evaluation, or conversations among colleagues about instructors' abilities to affect pupils (Lazarides & Warner, 2020). These difficulties underline the importance of innovative education and teacher training that can adapt to society's demands and needs (Madalińska-Michalak, O'Doherty, & Assunção Flores, 2018). Additionally, there is a critical need for academic research in this field to better understand the impact of school management structures on teacher performance. Istiqomah, Nurdyansyah, Fahyuni, and Anshori (2020) emphasize the crucial role of teacher performance supervision in developing high-quality educational institutions. The effectiveness and competence of teachers are essential for collaborative learning, systematic academic achievement, and positive student outcomes (Saleh & Mutiani, 2021). Thus, the importance of teacher performance is vital for successful educational and learning outcomes in both private and public schools.

Several studies have found a relationship between management structures and teacher performance, which have become the premise to conduct the current study. Fitria et al. (2017), for instance, discovered a clear association between the two, but Arekkuzhiyil (2021) listed various school administration tasks, including curriculum management, assessment of learning, student well-being, community participation, and financing. According to Özgenel and Mert (2019) teacher performance has a considerable impact on school effectiveness, particularly in terms of planning and implementing teaching and learning activities. Gardner-McTaggart (2021) proposed that restoring teacher autonomy is critical to increasing teacher performance. Different organizational structures were discussed, including hierarchical structures in which teachers report to middle management and ultimately senior leadership (De Nobile, 2018), horizontal structures in which layers of management are removed to foster independent thinking (Davids & Waghid, 2019), and team-based structures in which teachers work in groups rather than reporting to middle management (Chen & Kanfer, 2006).

Education professionals experience enormous difficulties in preparing culturally sensitive and intercultural educators (Smolcic & Katunich, 2017). Engaging students in arts-informed practices is consistent with Dewey's belief that educators should create opportunities for growth (Dewey, 1938). Teacher education reforms in the Asia-Pacific Region seek to provide teachers with new competencies and broaden their responsibilities as change agents

in implementing education initiatives (Cheng, 2019). There is growing agreement that the quality of schools is determined by the quality of instructors, emphasizing the role of teachers in student learning (Feiman-Nemser, 2001).

In the context of China's performance-driven teaching environment, there is a growing necessity to support teachers in improving their academic performance and teaching competencies (Lu, Leung, & Li, 2021). As indicated by Statista (2021), the number of full-time teachers in China has been steadily increasing. Primary schools have the highest number of full-time teachers, followed by junior and senior schools, underscoring the significant role of full-time teachers in public education. As the number of full-time teachers continues to rise, there is a pressing need to investigate how these management structures influence the distribution and efficacy of teachers, particularly in secondary education. The choice between horizontal and hierarchical structures may have far-reaching consequences on the ability of teachers to excel in their roles, impacting not only academic achievements but also job satisfaction, professional development, and overall well-being.

Based on these issues and concerns, this study seeks to unravel the intricate relationship between teacher performance and management structures in Chinese secondary schools, providing insights that can inform educational policies and practices. Consequently, the scarcity of full-time teachers in these educational stages reveals a connection between teacher performance and the prevailing management structures.

1.2. Research Objectives

This study's research objectives are threefold. To begin with, the study seeks to uncover the causes of the significant impact of horizontal organizational structure, as a feature of school administration structure, on teacher performance in China (RO1). Second, the research looks into the impact of hierarchical organizational structure, another aspect of school management structure, on teacher performance in China (RO2). Finally, the study tries to establish whether horizontal organizational structure or team-based organizational structure have a substantial influence on teacher performance in China (RO3). In short, the study intends to contribute to a better understanding of the relationship between school administration structure and teacher performance in the Chinese setting by addressing these research objectives.

1.3. Research Questions

RQ1: How does *hierarchical* organization structure, as a dimension of school management structure, significantly influence teacher performance in China?

RQ2: How does *horizontal* organization structure, as a dimension of school management structure, significantly influence teacher performance in China?

RQ3: How does *team-based* organization structure, as a dimension of school management structure, significantly influence teacher performance in China?

1.4. Research Gaps

The majority of earlier research has focused on the role of principal leadership in school management, however the current study deviates from this focus by evaluating several aspects of school structure management. This study attempts to bridge two major study gaps: a narrow focus on aspects other than principal leadership and differences in data analysis approaches. These gaps motivated the present study to provide more extensive research directions as well as a novel approach to the problem. This move allowed for more specific study directions. Furthermore, the data analysis methodologies used in this study differ from those used in earlier investigations. While most prior research used quantitative and qualitative methodologies to investigate the impact of school structure management on teacher performance, the current study used factor analysis, Pearson Correlation, and analysis of variance

(ANOVA) methods to test the hypotheses. These methodological discrepancies result in unique study structures and designs

2. LITERATURE REVIEW

Yue and Feng (2021) emphasize the value of teacher competencies and performance as well as leadership for advancement of Chinese education. The study holds immense relevance to promote deeper insights and examine the key factors influencing the effect of school management structure on teacher performance. Examining the relationship between teacher performance and school management structure in China holds relevance, because of the rapidly booming nature of the Chinese educational sector and the progress of educators and faculty in schools. In another study, Fitria et al. (2017) describe job performance as undertaking meaningful work in ways that are efficient and effective and identified a clear correlation between management structure and teacher performance. School management responsibilities included, but are not limited to, curriculum management, assessment of learning, student wellbeing, community participation and financing. Astuti, Fitria, and Rohana (2020) also define it as the work quality and quantity an employee attains while executing the duties and responsibilities assigned to them. Özgenel and Mert (2019) conclude that teachers' performance is highly influential with regards to the effectiveness of a school. Teacher performance can be recognized in their planning and the subsequent implementation of teaching and learning (Bambang, Wulandari, Nugraha, & Narmaditya, 2020).

Gardner-McTaggart (2021) asserts that in order to improve teacher performance, the autonomy of teachers must be re-established. Hierarchical organizational structure is that type of management structure whereby teachers answer to middle management, who in return answer to senior leadership (De Nobile, 2018). In an organization with a horizontal organizational structure, the layering of management is removed, effectively removing bureaucracy and fostering independent thinking in employees; however, in the context of South African education this has resulted in largely undesirable outcomes (Davids & Waghid, 2019). Finally, a team based organizational structure is the use of teacher teams to structure the school, having teachers working in groups as opposed to working alongside or acting as subordinates to middle management (Chen & Kanfer, 2006).

2.1. Hierarchical Organization Structures

Oliveira, Peixoto, and Do Carmo (2021) analyzed the impact of educational policies and bureaucratic structures on school professionals. When the focus of such a school was to empower teachers and principals and emphasize the role of actors in the bottom-up process at the lower end, it can lead to effective negotiations and commitments, despite formal processes and regulations. Humes (2022) examined the historical, institutional, and cultural factors needed to understand educational bureaucracy within organizational hierarchies in schools. Organizational theory involves various approaches to analyzing organizations and attempts to explain the mechanisms of organizations (Saad & Kaur, 2020). Humes (2022) argues that bureaucracy and hierarchy is anti-educational and undermines ethical and psychological responsibilities of teachers, and enhanced professional development can serve as a powerful counterweight to bureaucratic impediments. A hierarchical approach expresses the classical view of the organizational structure and may be implemented in any kind or size of organization (Saiti & Stefou, 2020). Humes (2022) argues that mass, state-run schools and educational systems cannot function without complex administrative and management structures either, yet the undesirable consequences of such management structures subvert educational aims.

According to Zhang and Koshmanova (2021), school leadership needs to shift from bureaucratic management and hierarchies to transformation, adaptive Junzi management structure. Certainly, this system of organizational structure (as with any system) has both advantages and disadvantages (Saiti & Stefou, 2020). Zhang and Koshmanova (2021) have also examined how power and authority in school management structures characterized by hierarchies and rigid bureaucracy impact teacher performance negatively and the “Gaokao” system causes

inequality and impacts competitive skill building and academic development in secondary schools in China. Therefore, factors impacting hierarchical organizational structure in Chinese schools are largely derived from policy implementation, bureaucratic management structures and the authoritarian, rational and task-oriented approach adopted by school principles. In this context, Zhang and Koshmanova (2021) identify the need for transformative leadership and the need for a management system that promotes justice, respect and collaboration.

2.2. Horizontal Organization Structure

Ahmadi (2021) examined how organizations that have a horizontal structure are influenced by centralization. In another study on horizontal organizational structure in Nepalese schools, Hamal (2020) held that decentralizing education enhances the autonomy of schools and schools and enable them to meet local needs by making school activities and leadership responsive and involving local staff in school education. Complexity in a horizontal organization is influenced by the work division components, the vertical separation of organizational depth. Generally, horizontal organizations are less likely to emphasize on rigid rules and regulations. According to Nasrullah, Haidar, and Soomro (2020), empowerment of parents or communities through horizontal management structure is based on improved monitoring and accountability in the school. The researchers, in their study, exemplified the role of monitoring and accountability in schools for impacting a horizontal, decentralized organizational structure. In another study, Du Plessis (2020) examined how the South African education system is democratized and decentralized, and the role of policy as a factor in horizontal organizations is discussed. Analysis showed accountability and monitoring systems such as parent teacher councils served to empower the teachers, build on community awareness and ensure empowered principles (Nasrullah et al., 2020). Policies play a critical role as factors in impacting horizontal school structures and imparting greater management autonomy to principals of public schools, by recommending principals should be given powers as leadership quality is enhanced (Du Plessis, 2020). Therefore, the role of legislation and policies as factors contributing to horizontal organizational structures in schools must be considered.

2.3. Team Based Organization Structure

Leadership is a critical factor in influencing team-based organization structures in schools (Daugherty, Schweig, & Gates, 2020). Daugherty et al. (2020) study examined the key components of team leadership programmes that promote training and collaborative learning as well as team-based coaching and leadership to promote a team organizational structure in schools. School reform policies and incentives also play a role in inculcating team-based organization structure in schools, according to Malone, Groth, and Glazer (2021). Relative to comparison schools, the team-based leadership inculcated an atmosphere of student achievement, school culture and effective team-based functioning (Daugherty et al., 2020).

Connectivity across schools and communities is another aspect of the team-based organizational structure in educational settings. The researchers found most successful leaderships in multi-school organizations focused on team-based structures, establishing robust instructional systems and professional development. Team-based organizational structure is also based on values diversity and transferring knowledge across school boundaries that promote accountability, a common set of tools and theory of action necessary for improved student outcomes, complex and resource-intensive work (Malone et al., 2021). Ulfatin, Mustiningsih, Sumarsono, and Yunus (2022) drew on school-based management that incorporated educational reform and team-based learning to improve school academic achievement and quality. Other factors that impact team-based organizational structure include shared curriculum and instructional design and leadership across teaching and learning positions within schools (Malone et al., 2021).

The following conceptual theory was built based on review of the literature and the underlying theories (Refer to Figure 1).

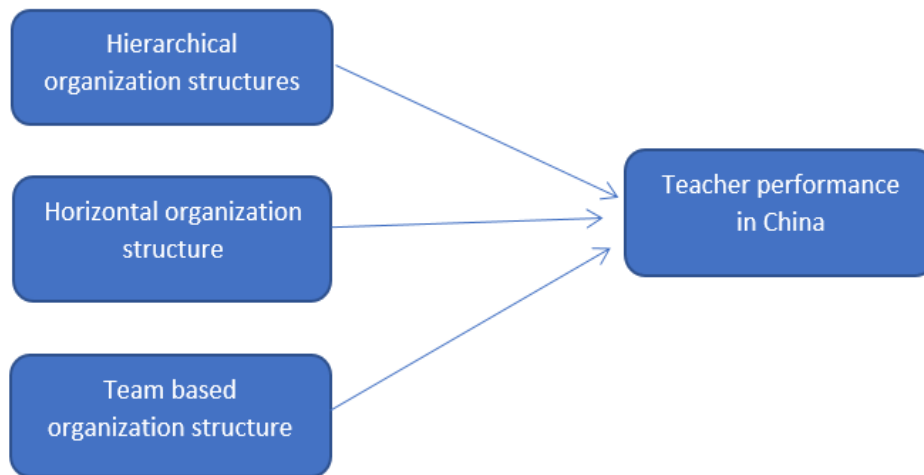


Figure 1. Conceptual framework.

3. METHODOLOGY

This is a quantitative study utilizing a descriptive survey design that seeks to investigate a correlation between organization structure and performance of teachers in China. The target population for this study consists of Chinese full-time teachers and it explores how their performance is influenced by the school management structure. With the consideration of the research reliability and research duration, the sampling size is determined to be 50 samples drawn from a population of full-time teachers in China. The questionnaire contained four sections and used a 5-point Likert scale.

The researcher conducted a pilot test. During the preliminary test, if it is less than 0.6, the item must be deleted. However, because the sample size for a pilot test was just 10% of the total sample size, loading less than 0.6 but greater than 0.5 was acceptable for the pilot test effect.

3.1. Data Analysis Instrument

This study's data analysis employed two main methods: descriptive analysis and regression analysis. Factor analysis, frequency analysis, and reliability testing are all examples of descriptive analysis. Factor analysis was used to uncover underlying components and determine the sufficiency of sample size. The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests of sphericity were used, with a minimum score of 0.6 necessary for pilot test acceptability. Factor loadings more than 0.6 were deemed substantial, whereas values between 0.5 and 0.6 are considered acceptable for the pilot test. Eigen values larger than one are investigated further. The correctness of the data is evaluated using Cronbach's Alpha, with a value greater than 0.7 indicating excellent internal consistency.

Multiple regression and regression ANOVA are used in regression analysis. Multiple regression evaluates model fit and predictability of constructs, with an R^2 value greater than 0.5 suggesting predictive capability. ANOVA regression analyses the contribution of several sources of variation and determines the influence of controllable factors, with a p-value of less than 0.05 indicating a statistically significant correlation. The Beta coefficient is used in the analytical framework to find the most important element on the event under examination. A greater Beta coefficient indicates a more powerful influence. Multicollinearity analysis is used to examine data skewness, with values less than 10 indicating lesser skewness and values greater than 10 indicating excessive overlap and potential bias.

4. FINDINGS

4.1. Correlation Analysis

The dependent variables were combined to form a single average score for the dependent variables and tested for correlation with the independent variables. Table 1 portrays a notable weak negative correlation between

management structures and teacher performance. At -0.392, the Pearson's correlation coefficient is a weak negative correlation score.

Table 1. Correlations between management structures and teacher performance.

		Average DV score	Total independent variable
Average DV score	Pearson correlation	1	-0.392**
	Sig. (2-tailed)		0.005
	N	50	50
Total independent variable	Pearson correlation	-0.392**	1
	Sig. (2-tailed)	0.005	
	N	50	50

Note: **. Correlation is significant at the 0.01 level (2-tailed).

4.2. Multiple Regression Analysis

Multiple regression was pertinent in this research to evaluate the relationship between dependent and independent variables. Before evaluating the effect on the average dependent variable score, the researcher first explored the influence of independent variables on two selected dependent variables (two with the highest communality scores). The R Squared were 0.304 and 0.385 for the two model summaries derived. This score is below the average 0.5 that is required for the covariates to predict teacher performance. This is captured in the model summaries in Table 2 and Table 3.

Table 2. Teacher performance and teacher's personal assessment.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.551 ^a	0.304	0.078	0.975

Note: a. Predictors: (Constant).

Table 3. Teacher performance and performance appraisal.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.620 ^a	0.385	0.185	0.761

Note: a. Predictors: (Constant).

To understand the model summaries in these two tables, it is important to refer to the research questions of this study that aimed to conduct the teacher's personal assessment to identify their shortcomings as well as the kind of primary problems that should be solved in the performance appraisal work in future. Specifically, the research questions were generalized to identify how hierarchical, horizontal, and team-based organization structures influenced teacher performance in China. In Table 2 and 3, model summaries provide statistical results related to the research questions. The "R square" value is of particular significance, as it indicates how much of the variation in teacher performance is explained by the variables included in the model.

In Table 2, the R square is 0.304, meaning that the model accounts for 30.4% of the variation in teacher performance. Table 2 indicates clear correlations between organizational structures and important outcomes. Team-based structures are found to support career advancement (20) and democratic management (18), whereas Hierarchical structures are associated with heightened motivation (11) and management efficiency (9). Horizontal structures are linked to democratic management (14), increased motivation (15), and efficient management (13), with a particular emphasis on career advancement (16). These nuanced findings underscore the intricate relationships between organizational structures and key facets of organizational functioning, offering insights into potential implications for career development, motivation, and managerial efficiency across different structural frameworks. In Table 3, the R square is 0.385, indicating that the model explains 38.5% of the variation in teacher

performance. Table 3 reveals distinctive associations between organizational structures and outcomes. Team-based structures are linked to career advancement and democratic management, while Hierarchical structures are associated with increased motivation and efficiency in management. Horizontal structures are characterized by democratic management, enhanced motivation, and efficiency, with a particular emphasis on career advancement. These findings highlight the nuanced connections between organizational structures and critical aspects of organizational functioning, suggesting potential implications for career development, motivation, and managerial efficiency across different structural frameworks. In the analysis, it is important to note that the "Adjusted R square" adjusts the R square for the number of predictors in the model, and the "Standard error of the estimate" reflects the accuracy of predictions. These statistical results provide a better understand of the positive relationships between organizational structures and teacher performance.

4.3. ANOVA

Based on the two ANOVA tables generated for the variables, the significance levels of the F-test are above $p=0.05$. The results of the ANOVA tables provide insights into the relationship between the specified dependent variables and the predictor variables mentioned in the table keys. This is an indication of statistical insignificance which means that there is no sufficient evidence to validate a relationship between hierarchical, horizontal, and team-based organization structures with teacher performance. Table 4 represents the ANOVA summary, where the regression model exhibits a sum of squares of 15.329, and a mean square of 1.277 with the associated p-value (Sig.) being 0.237. Table 4 indicates that team-based organizational structures are associated with career advancement and democratic management, hierarchical structures with increased motivation and management efficiency, and horizontal structures with democratic management, enhanced motivation, efficiency, and a focus on career advancement. These findings underscore the varied impacts of organizational structures on key aspects of organizational functioning.

Table 4. Organizational structures and teacher performance 1.

ANOVA ^a						
	Model	Sum of squares	df	Mean square	F	Sig.
1	Regression	15.329	12	1.277	1.344	0.237 ^b
	Residual	35.171	37	0.951		
	Total	50.500	49			

Note: a. Dependent variable: 6. In the teacher's personal assessment, what are the shortcomings in your opinion?
 b. Predictors: (Constant).

Table 5 represents the ANOVA summary, where the regression model displays a sum of squares of 13.392, and a mean square of 1.116 with the associated p-value (Sig.) amounting to 0.063. Table 5 reveals that team-based organizational structures are associated with career advancement and democratic management, hierarchical structures with increased motivation and efficiency, and horizontal structures with democratic management, enhanced motivation, efficiency, and a focus on career advancement. These findings highlight the diverse impacts of organizational structures on crucial aspects of organizational performance.

Table 5. Organizational structures and teacher performance 2.

ANOVA ^a						
	Model	Sum of squares	df	Mean square	F	Sig.
1	Regression	13.392	12	1.116	1.927	0.063 ^b
	Residual	21.428	37	0.579		
	Total	34.820	49			

Note: a. Dependent variable: 8. In your opinion, what is the primary problem that should be solved in the performance appraisal work in the future?
 b. Predictors: (Constant).

The ANOVA tables (Table 4 and 5) show the relationship between two dependent variables and the predictor variables. In summary, the analysis reveals that, based on the data and the model used, there is no statistically significant relationship between the organizational structures examined and the specified measures of teacher performance. This implies that these organizational structure variables, as included in the model, do not appear to have a strong influence on the dependent variables under investigation. However, there may be other factors not considered in this analysis which may still contribute to the observed outcomes.

4.4. Impact of Hierarchical Management Structure on Teacher Performance

The findings from Tables 6, 7, and 8 pertain to the impact of Hierarchical Management Structure on Teacher Performance.

Table 6 presents an R square of 0.097, indicating that this model accounts for only 9.7% of the variance in teacher performance. This value falls notably below the commonly expected threshold of 0.5, which is typically necessary for the covariates, such as the hierarchical organizational structure, to be considered significant predictors of teacher performance.

Table 6. Impact of hierarchical management structure on teacher performance 1.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.312 ^a	0.097	0.017	0.251

Note: a. Predictors: (Constant).

The results in Table 7 and Table 8 suggest that the predictors, which are related to hierarchical organizational structure management, do not collectively or individually have a significant impact on the average DV score in this analysis. The higher p-values in both tables indicate a lack of statistical significance for these predictors. Table 7 provides the p-value associated with the F-statistic is 0.320. Since it is greater than 0.05, it suggests that the regression model is not statistically significant, and the predictors are not collectively explaining a significant amount of variance in the average dependent variable score.

These findings suggest associations between different organizational structures and specific outcomes within an organizational context. For instance, team-based structures are linked to career advancement and democratic management, hierarchical structures to increased motivation and efficiency, and horizontal structures to democratic management, enhanced motivation, efficiency, and a focus on career advancement. These findings highlight the varied impacts that organizational structures can have on critical aspects of organizational functioning, indicating potential implications for career development, motivation, and managerial efficiency across different structural frameworks.

Table 7. Impact of hierarchical management structure on teacher performance 2.

ANOVA ^a						
Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	0.304	4	0.076	1.209	0.320 ^b
	Residual	2.825	45	0.063		
	Total	3.129	49			

Note: a. Dependent variable: Average DV score.
 b. Predictors: (Constant).

Table 8 provides coefficients and t-values for various predictors (Hierarchical organizational structure management variables) concerning the average DV score. The t-values and p-values for these predictors help assess their individual significance in explaining the average DV score.

These findings underscore the characteristics of hierarchical organizational structures, revealing that they exhibit higher efficiency in management (9), they feature more democratic management practices (10), they are inherently more motivating (11) and they are more conducive to career advancement (12). This collective insight suggests that within a hierarchical organizational framework, career progression is facilitated, managerial decision-making processes are more democratic, operational efficiency is enhanced, and motivation among individuals is heightened. These interrelated aspects illuminate the multifaceted impact of hierarchical structures on career development, managerial dynamics, and motivation within an organizational context. This suggests that, in this specific analysis, Hierarchical organizational structure may not be a strong predictor of teacher performance, and additional factors or variables may need to be considered to better explain this relationship.

Table 8. Coefficients for hierarchical management structure predictors.

Co-efficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.541	0.114	-	13.565	0.000
	9、 Hierarchical organizational structure management is more efficient.	-0.017	0.043	-0.086	-0.397	0.694
	10、 Hierarchical organizational structure management is more democratic.	0.014	0.048	0.065	0.294	0.770
	11、 Hierarchical organizational structures are more motivating.	0.037	0.051	0.159	0.720	0.475
	12、 Hierarchical organizational structure is more conducive to career advancement.	-0.077	0.045	-0.387	-1.717	0.093

Note: a. Dependent variable: Average DV score.

4.5. Impact of Horizontal Management Structure on Teacher Performance

The findings from Tables 9, 10, and 11 pertain to the impact of Horizontal Management Structure on Teacher Performance.

Table 9 assesses the regression model's performance in predicting teacher performance based on Horizontal organizational structure variables. The R square is 0.170, signifying that the model accounts for 17% of the variance in teacher performance. However, this R square value is notably below the common threshold of 0.5, which is typically necessary for predictors (in this case, Horizontal organization structure) to be considered significant in predicting teacher performance.

Table 9. Impact of horizontal management structure on teacher performance 1.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.412 ^a	0.170	0.096	0.240

Note: a. Predictors: (Constant).

Table 10 explores the overall significance of the regression model that includes Horizontal organizational structure predictors in explaining the "Average DV score." The F-statistic is 2.301, but the p-value (Sig.) is 0.073, which is greater than 0.05. This suggests that the regression model is not statistically significant, implying that the Horizontal organizational structure predictors do not collectively explain a significant amount of variance in the "Average DV score."

Table 11 provides information about individual Horizontal organizational structure predictors and their relationships with the "Average DV score." In Table 11, none of the Horizontal organizational structure

management variables have significant effects on the "Average DV score," as indicated by the relatively high p-values.

Table 10. Impact of horizontal management structure on teacher performance 2.

ANOVA ^a						
Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	0.531	4	0.133	2.301	0.073 ^b
	Residual	2.597	45	0.058		
	Total	3.129	49			

Note: a. Dependent variable: Average DV score.
b. Predictors: (Constant).

This indicates that within a horizontal organizational structure, several positive attributes are associated. First, the efficiency of management in a horizontal organizational structure is highlighted (13), possibly pointing to streamlined processes and effective communication channels. Second, the management style within a horizontal structure is perceived as more democratic (14), suggesting a collaborative and inclusive decision-making approach. Third, the overall work environment in horizontal structures is deemed more motivating (15), suggesting that the collaborative and inclusive nature of such structures contributes positively to employee engagement and morale. Finally, it suggests that career advancement is more achievable in this type of structure (16), emphasizing the potential for professional growth and development. These attributes imply that a horizontal organizational structure fosters an environment conducive to career advancement, democratic decision-making, operational efficiency, and employee motivation.

Table 11. Coefficients for horizontal management structure predictors.

Coefficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.719	0.102	-	16.829	0.000
	13, Horizontal organizational structure management is more efficient.	-0.039	0.059	-0.168	-0.652	0.518
	14, Horizontal organizational structure management is more democratic.	-0.017	0.044	-0.076	-0.394	0.695
	15, Horizontal organizational structures are more motivating.	-0.008	0.077	-0.037	-0.110	0.913
	16, Horizontal organizational structure is more conducive to career advancement.	-0.038	0.067	-0.172	-0.569	0.572

Note: a. Dependent variable: Average DV score.

4.6. Impact of Team Based Management Structure on Teacher Performance

The findings from Tables 12, 13, and 14 relate to the impact of Team-Based Management Structure on Teacher Performance. Table 12 evaluates a regression model's ability to predict teacher performance based on Team-Based organizational structure variables. The R square is 0.179, indicating that the model explains 17.9% of the variance in teacher performance. However, this R square value is significantly below the typical threshold of 0.5, which is generally expected for predictors (in this case, Team-Based organizational structure) to be considered significant in predicting teacher performance.

Table 12. Impact of team based management structure on teacher performance 1.

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.423 ^a	0.179	0.106	0.239

Note: a. Predictors: (Constant), 20, Team-based organizational structure is more conducive to career advancement.

Table 13 examines the overall significance of the regression model that includes Team-Based organizational structure predictors in explaining the "Average DV score." The F-statistic is 2.451, with a p-value (Sig.) of 0.060, which is just above the conventional threshold of 0.05. This suggests that the regression model is almost statistically significant, implying that the Team-Based organizational structure predictors collectively explain a borderline significant amount of variance in the "Average DV score." This emphasizes the positive attributes of team-based organizational structures.

Table 13. Impact of team based management structure on teacher performance 2.

ANOVA ^a						
Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	0.560	4	0.140	2.451	0.060 ^b
	Residual	2.569	45	0.057	2.57	0.057
	Total	3.129	49	0.065	3.129	0.064

Note: a. Dependent variable: Average DV score.
 b. Predictors: (Constant).

Table 14 provides information about individual Team-Based organizational structure predictors and their relationships with the "Average DV score." In Table 14, none of the Team-Based organizational structure management variables have significant effects on the "Average DV score," as indicated by the relatively high p-values. This collectively suggests that within a team-based organizational structure, several positive attributes are associated.

Firstly, the management within a team-based structure is emphasized as more efficient (17), possibly pointing to streamlined processes and effective coordination among team members. Secondly, the management style within such a structure is perceived as more democratic (18), indicating a collaborative and inclusive approach to decision-making, where input from team members is valued. Thirdly, team-based organizational structures are linked to higher levels of motivation (19), implying that the collaborative and cohesive nature of team dynamics positively influences employee morale. Finally, these team-based structures are depicted as conducive to career advancement, reflecting opportunities for individual professional growth (20). In essence, these highlight the advantageous aspects of team-based organizational structures, including democratic management, motivational elements, and operational efficiency.

Table 14. Coefficients for impact of team-based management structure on teacher performance predictors.

Coefficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	1.698	0.094	1	18.145	0.000
	17、 Team-based organizational structure management is more efficient.	-0.049	0.071	-0.238	-0.693	0.492
	18、 Team-based organizational structure management is more democratic.	-0.038	0.038	-0.184	-0.998	0.323
	19、 Team-based organizational structures are more motivating.	0.021	0.063	0.097	0.328	0.745
	20、 Team-based organizational structure is more conducive to career advancement	-0.028	0.053	-0.137	-0.535	0.595

Note: a. Dependent variable: Average DV score.

In summary, the findings from these tables suggest that the Team-Based organizational structure does not significantly impact teacher performance, as measured by the "Average DV score." The model and individual

predictors do not provide strong evidence to support a significant relationship. These results imply that other factors beyond the Team-Based organizational structure may play a more substantial role in influencing teacher performance, although the model is near the threshold of statistical significance in the ANOVA table.

5. DISCUSSION

Research Question 1: How does hierarchical organization structure, as a dimension of school management structure, significantly influence teacher performance in China?

The result indicates no influence between hierarchical management structure and teacher performance. It is important to note that the collective benefits of the management structures are not certain within the absoluteness of its application but are certain where the model is flexible and welcomes other complimentary riders for the same. Rewards are pertinent in this case. Rewards act as motivation for teacher performance despite the management structure they adopt in their practice (Seppala & Smith, 2020). This observation follows an understanding that people want to perform great in their respective positions, but they do so alongside the concept of competition. Rewards enable the concept of competition, and this is requisite across all management platforms. Nevertheless, while there is minimal correlation between school management structures and teacher performance, there is indication that individual preferences among teachers is a great influencer on how they undertake responsibilities, exploit opportunities for growth, strive for progressive development, and render ultimate services to students.

Hierarchical organizational structure is the most common and seasoned management structure in schools. They have proved to be effective in the long run, by virtue of delegating duties from the upper echelons to the lower ones. However, our current study implies that this form of stewardship is not contributory to teacher performance wholesomely. It is important to understand that hierarchical management structures are based on the simplest form of work distribution, which largely depends on the employee's perception, and certainly not a guarantee for progressive performance. It is also important to note that leadership is an integral part of hierarchical management structure and is largely a cause for efficient performance and continued development. What disputes this logic is that leadership qualities vary from one facility to another, and performance outcomes may often be directly related to the leadership in place. The relationship between hierarchical management structure and teacher performance had the least statistical significance, implying the possibility of teachers deviating from normalcy and preferring other organizational structures. As Humes (2022) argued, hierarchical forms of management may undermine the ethical and psychological responsibilities of teachers due to bureaucratic formalities that inhibit the standard way of service delivery.

Research question 2: How does horizontal organization structure as a dimension of school management structure significantly influence teacher performance in China?

Horizontal management structure is taking shape in modern teaching practice. This study ascertains that this structure plays a better role in influencing teaching performance as compared to hierarchical management structure. This capacity arises from the ability to influence policymaking and flexibility in innovation in the teaching profession. Ahmadi (2021) sustains this argument when he says that decentralization of roles in horizontal organization structures creates room for expression and exploration of the creative acumen among teachers. Nevertheless, while horizontal organizational structure provides flexibility and a space to execute freely the capability of teachers, the need for accountability and monitoring prevails. This is in efforts to keep a progressive track on the deliverables needed to upscale the teaching practice.

Research question 3: How does team-based organization structure, as a dimension of school management structure, significantly influence teacher performance in China?

This study sustains that team-based organizational structures have a greater relationship with teacher performance compared to horizontal and hierarchical management structures. This information responds to research question 4 that asks which dimension of school management structure has significant influence on teacher

performance in China among horizontal organization structure or team-based organization structure? Notably, participants of this study are more inclined to have more squad-related responsibilities as opposed to individual responsibility on tasks. A pertinent reason for this form of organizational structure is because teachers relate better in their delivery levels and can perform better when placed in such cohorts in their duties. The biases arising from versions of management such as hierarchical develop from the extensions seen in leadership and disparities attributable to ranks and professional attainment. Katzenbach and Smith (2015) observe that Team-based stewardship is narrowed down to functional units that depend on each other to deliver the best on a specific mandate.

5.1. Recommendations

School administrators must apply multiple reward systems to improve teachers' job satisfaction levels. Academic institution leaders should understand that no single reward system can meet the needs of all teachers at the same time. On the contrary, investing in multiple reward programs promotes a greater recognition and appreciation for efforts made to improve students' performance. The academic institution can decide to issue bonuses to teachers whose input supersedes that of their co-workers within the same school. Alternatively, pay raises based on experience, skills, and personal information can motivate colleagues to add more effort and receive similar rewards. Workers can also appreciate monetary prizes by offering tickets to major events and sporting activities. The rationale is that financial rewards create incentives for enhanced productivity and performance, challenging individuals to generate healthy competition.

Although monetary rewards are good, they are inadequate for meeting all workers' needs. Mainly, academic institutions have limited budgets, focusing on institutional and administrative activities tailored to enhance learners' experience and performance. Consequently, offering financial incentives is sometimes impossible when many workers exceed expectations, and a school has a lower budget than others. Academic institutions and bodies regulating teachers' work should explore non-monetary rewards that include issuing certificates to top-performing teachers tied to other benefits such as free membership to subscription clubs. Schools should introduce teacher assistance programs to enhance psychological health, stress management, and coping mechanisms during difficult circumstances. Thus, school administration should invest in monetary and non-financial incentives to acknowledge exceptional teachers' services.

In China, the hierarchical system is more common within school administration than the horizontal management tactic. However, the current study demonstrates that the hierarchical leadership process fails to contribute to teachers' overall performance effectively. The challenge is that under a hierarchical approach, teachers take part in implementing policies rather than creating them. The downside is that the psychological fulfilment that comes from creating policies is absent under the hierarchical model. The proposal is for the Ministry of Education to increase the adoption of a horizontal management structure that proves more effective in policymaking. Ahmadi (2021) concurs that the horizontal leadership approach is core to enhancing leadership output because it encourages active participation in the policymaking process, supporting flexibility and innovation in the organization. Merging the horizontal and hierarchical leadership approaches to create a more functional hybrid system is critical to resolving the current stalemate in the education sector. The horizontal aspect will increase teachers' role in formulating policies and developing innovative tactics to enhance service delivery, while the hierarchical model will enforce accountability by monitoring teachers' activities.

This study recommends that there is better teachers' performance when operating as a team. Ji and Yan (2020) state that team-based structures are more functional in problem-solving than traditional systems. Although the initial part proposes a hybrid approach, integrating team-based mechanics in the teaching process will allow tutors to take advantage of the strengths inherent in each teacher and optimize outcomes by tackling problems more effectively.

5.2. Limitations and Future Implications

The survey was limited to the teaching profession, and it is unclear whether a similar study in other industries would give similar findings. The study was able to acquire more relevant findings particular to that area by limiting the research focus to one sector. It should be noted, however, that the survey was only open to Chinese citizens. While the majority of the survey responses were from the Chinese education industry, there were tutors from all over the world. Similar investigations from other countries would be valuable to discover whether the survey respondents' attitudes are indicative of the broader workforce. Increasing the number of respondents in future studies may aid in diversifying replies and acquiring a more comprehensive picture.

Future studies should address the identified shortcomings in performance appraisal, tailoring the process to teachers' workload and task difficulty instead of using a rigid standardized approach. Research should focus on integrating various personnel in the appraisal process, including workers from the same department, employees from other units, and department leaders, to examine their contributions to teachers' performance. Qualitative investigations involving workers from different locations can capture insights on the ideal appraisal process, with thematic analysis uncovering factors often overlooked in standardized appraisals. Additionally, future surveys should apply a hybrid system incorporating hierarchical, horizontal, and team-based management structures, tracking teachers' performance, and assessing the effectiveness of the framework in terms of efficiency, democracy, motivation, and career advancement.

6. CONCLUSION

This research provides valuable insights for both academia and the education sector. It compares different leadership approaches' impact on teacher performance in China, highlighting the role of reward systems. The study emphasizes the need for diversified performance appraisal processes and participants in the education industry, challenging policymakers to create a more dynamic and inclusive system. It identifies shortcomings in teachers' assessment approaches and calls for improved tools that consider workload and task difficulty. The research also suggests the integration of multiple reviewers to enhance objectivity in performance evaluations. These findings prompt policymakers to modify appraisal systems and better reflect teachers' performance to improve outcomes.

In conclusion, this study provides compelling evidence that educational institutions in China need to implement both monetary and non-monetary incentives to effectively motivate teachers. The research also highlights significant flaws in the current review process utilized within the Chinese education system, emphasizing the need for improvements. Additionally, a comprehensive analysis of different leadership and organizational structures reveals their respective strengths and weaknesses. However, the study suggests that the most effective approach is to integrate the strengths of these structures into a hybrid system that is responsive to the specific needs and aspirations of employees. By adopting such a hybrid system, educational institutions can create a supportive and motivating environment for teachers, ultimately enhancing their performance and improving overall educational outcomes.

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