DEVELOPMENT OF EDUCATIONAL ADMINISTRATION MODEL
FOR SHENYANG CONSERVATORY OF MUSIC UNDER LIAONING PROVINCE

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Abstract

The objectives of this research were to: (1) determine the components and indicators of educational administration for the Shenyang Conservatory of Music, Liaoning Province; and (2) develop and verify an educational administration model for the Shenyang Conservatory of Music under Liaoning Province. The research utilized a mixed-methodology design, combining quantitative and qualitative approaches. The population consisted of 1,725 administrators and teachers from the Shenyang Conservatory of Music, People's Republic of China. A proportional stratified random sampling method was employed, totaling 496 participants by G*Power Software. Data collection instruments included a semi-structured interview form and a five-point rating scale questionnaire. Descriptive statistics and Confirmatory Factor Analysis (CFA) were used for data analysis.

The findings revealed that: (1) the components and indicators derived from the theoretical framework included five components and 15 indicators, such as execution of top management, middle management, construction of the educational environment, work efficiency, and informatization construction; and (2) the educational administration model for the Shenyang Conservatory of Music was supported by empirical data, with statistical values indicating a good fit: Chi-square (χ^2) = 55.20, Relative Chi-square (χ^2/df) = 1.90, Goodness of Fit Index (GFI) = 0.98, Adjusted Goodness of Fit Index (AGFI) = 0.92, and Root Mean Square Error of Approximation (RMSEA) = 0.04. These results demonstrated that the

five key components were highly effective, with estimated standardized factor loadings between 0.85 and 0.98, and sub-factors/indicators between 0.80 and 0.96.

Keywords: Educational Administration Model, Shenyang Conservatory of Music, Liaoning Province

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วัตถุประสงค์ของการวิจัยนี้คือ: (1) กำหนดองค์ประกอบและตัวชี้วัดของการบริหารการศึกษาสำหรับวิทยาลัยดนตรีเสี่ยวหยาง มณฑลเหลียวหนิง และ (2) พัฒนาและตรวจสอบแบบจำลองการบริหารการศึกษาสำหรับวิทยาลัยดนตรีเสี่ยวหยาง มณฑลเหลียวหนิง การวิจัยใช้รูปแบบวิธีการผสมระหว่างการวิจัยเชิงปริมาณและเชิงคุณภาพ ประชากรที่ใช้ในการวิจัยประกอบด้วยผู้บริหารและครู จำนวน 1,725 คน ของวิทยาลัยดนตรีเสี่ยว หยาง ประเทศสาธารณรัฐประชาชนจีน โดยใช้วิธีการสุ่มตัวอย่างแบบแบ่งชั้นตามสัดส่วน รวม 496 โดยใช้โปรแกรมจีสตาร์เพาเวอร์ เครื่องมือสำหรับการเก็บข้อมูล รวมถึงแบบฟอร์มการสัมภาษณ์กึ่งโครงสร้าง และแบบสอบถามมาตราส่วนประมาณค่า 5 ระดับ สถิติที่ใช้สำหรับการวิเคราะห์ข้อมูลคือ สถิติเชิงพรรณนาและการวิเคราะห์ปัจจัยยืนยัน (CFA)

ผลการวิจัยพบว่า (1) องค์ประกอบและตัวชี้วัดที่ได้จากกรอบแนวคิดทางทฤษฎี ประกอบด้วย 5 องค์ประกอบหลัก 15 ตัวชี้วัด ได้แก่ องค์ประกอบ การดำเนินงานของผู้บริหารระดับสูง ประสิทธิภาพในการทำงานของผู้บริหารระดับกลาง การสร้างสภาพแวดล้อมทางการศึกษา ประสิทธิภาพในการทำงาน และการสร้างระบบสารสนเทศ และ (2) แบบจำลองการบริหารการศึกษาสำหรับวิทยาลัยดนตรีเสี่ยวหยาง มีความสอดคล้องกับข้อมูลเชิงประจักษ์ โดยมีค่าสถิติที่บ่งบอกถึงความสอดคล้อง ได้แก่ ค่าไคสแควร์ (χ^2) = 55.20, ค่าไคสแควร์สัมพัทธ์ (χ^2/df) = 1.90, ดัชนีความสอดคล้อง (GFI) = 0.98, ดัชนีความสอดคล้องที่ปรับแล้ว (AGFI) = 0.92 และค่าความผิดพลาดรากที่สองเฉลี่ยของการประมาณค่า (RMSEA) = 0.04 ซึ่งผลลัพธ์เหล่านี้แสดงให้เห็นว่าองค์ประกอบหลักทั้ง 5 มีประสิทธิภาพสูงมาก เนื่องจากการประมาณค่าน้ำหนักการโหลดมาตรฐาน (Estimate standardized factor loading) ขององค์ประกอบ มีค่าระหว่าง 0.85 ถึง 0.98 และตัวชี้วัดย่อยมีค่าระหว่าง 0.80 ถึง 0.96

คำสำคัญ: แบบจำลองการบริหารการศึกษา, วิทยาลัยดนตรีเสิ่นหยาง, มณฑลเหลียวหนิง

Introduction

At present, the middle-level education managers of the Shenyang Conservatory of Music have demonstrated low ability and quality, along with a lack of enthusiasm. Additionally, the performance incentive mechanisms in place are not perfect (Ren, 2020).

The educational administration team construction lacks sufficient attention, and there is a significant shortage of funds. The primary work of the school encompasses various daily teaching activities, scientific research, hardware equipment, and professional development of educators. However, administration has been weakened and cannot be effectively executed, resulting in a lack of potential to meet future developmental needs. The current concept of education administration is outdated, and there is insufficient innovation among senior managers.

As we move further into the era of information datamation, the characteristics of comprehensive colleges and universities become more evident. This trend towards personalized educational administration for different disciplines and specialties is becoming increasingly pronounced. Currently, the educational administration concept at the Shenyang Conservatory of Music is relatively backward. It still prioritizes a rigid system, ignoring emotional communication and humanistic appeal, resulting in a lack of flexibility. The administration methods are simplistic, applying uniform standards to both teachers and students, without a people-oriented concept and consciousness. Consequently, educational administration work is often mechanical and repetitive, with the same working mode applied without change. Additionally, the informatization level of educational administration needs improvement. The lack of a scientific and standardized administration mechanism and mode hampers data transformation, significantly affecting the informatization level of the institution.

Educational administration at every level—top management, middle management, and operational—plays a crucial role in shaping the institution's effectiveness and future growth. The strategic vision and policy-setting roles of top management, the operational implementation by middle management, and the day-to-day efficiency at the operational level are all vital components. This study aims to address these issues by defining the scope of educational quality administration model development for the Shenyang Conservatory of Music in Liaoning Province, China. Through development and construction of a school-based education quality administration model, this research seeks to improve the school's reputation, educational quality, social impact, and the value orientation of personnel training. The development of this model is framed within the context of China's Ministry of Education's evaluation of undergraduate teaching levels, aiming to build a reasonable and practical education quality administration system for art academies (Ministry of Education

of the People's Republic of China, 2018). This model will incorporate administration theory, teaching systems, and operational objectives to enhance educational quality at a high standard and level.

The researcher, being familiar with the current situation of educational administration at the Shenyang Conservatory of Music, has a solid foundation for this study. By exploring the development pattern of educational quality administration in this context, the research aims to provide a comprehensive model that promotes effective educational administration practices. This hybrid research approach will consider the existing educational quality administration practices and propose new models and standards that can provide robust administrative support for the institution. Establishing a scientific and reasonable education quality administration model is of great practical significance for improving school management ability, educational level, and administration efficiency. Effective educational administration has been highlighted in numerous studies as crucial for enhancing institutional performance and achieving educational goals. For instance, the strategic leadership and vision provided by top management are essential for setting long-term goals and ensuring alignment with institutional objectives (Bush & Glover, 2014). Middle management plays a critical role in translating these strategies into actionable plans, ensuring operational success and efficient resource management (Sergiovanni, 1980). At the operational level, enhancing work efficiency and leveraging technology can significantly improve administrative processes and educational outcomes (Tian, Sanchez, & Zhu, 2021; Fullan, 2012). Moreover, transformational leadership in educational administration has been shown to positively impact teacher engagement, satisfaction, and student outcomes (Leithwood & Jantzi, 2005; Robinson, Lloyd, & Rowe, 2008). The integration of technology in educational administration can further enhance decision-making and operational efficiency, aligning with contemporary educational demands (Kim et al., 2015).

In summary, this research seeks to develop an educational administration model tailored to the specific needs and context of the Shenyang Conservatory of Music. By doing so, it aims to enhance the institution's administrative effectiveness and educational quality, ultimately contributing to its long-term development and success. This comprehensive approach will address educational administration at every level, ensuring that all aspects are aligned to support the institution's goals.

Research Questions

1. What are the components and indicators of educational administration for the Shenyang Conservatory of Music under Liaoning Province?

2. What is the most effective educational administration model for the Shenyang Conservatory of Music under Liaoning Province?

Research Objectives

1. To determine the components and indicators of educational administration required by administrators at the Shenyang Conservatory of Music.

2. To develop and verify an educational administration model for the Shenyang Conservatory of Music under Liaoning Province.

Research Hypotheses

The educational administration model for the Shenyang Conservatory of Music under Liaoning Province is consistent with empirical data.

Research Method

Research Design

This study employs a mixed-methods approach, incorporating both quantitative and qualitative methods. Quantitative data were collected through a survey questionnaire, while qualitative data were gathered through semi-structured interviews.

Population and Sample

The population of this research consisted of 1,725 administrators and teachers at the Shenyang Conservatory of Music. A proportional stratified random sampling method was used to select a sample of 496 participants, determined using G*Power Software.

Research Instruments

Data collection utilized two primary instruments: a semi-structured interview form and a five-point rating scale questionnaire. The questionnaire was created using the Chinese website "WJX.cn" and managed on a professional platform for online data collection. The questionnaire was divided into two parts:

Part I: Demographic variables, including gender, age, education level, position, and working years.

Part II: A rating scale questionnaire addressing the components of educational administration for the Shenyang Conservatory of Music, using a five-level Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

The instruments were validated using the Index of Item-Objective Congruence (IOC) and tested for reliability using Cronbach's alpha coefficient, with all items scoring above 0.80.

Data Collection

Data collection followed these steps:

1. Obtain permission from the Faculty of Education, Bangkokthonburi University.

2. Request a letter of recommendation from the BTU Educational Faculty.

3. Select coordinating teachers to assist with data collection at each institution, ensuring they understand the questionnaire administration and data collection details.

4. Distribute questionnaires to the selected samples through the coordinating teachers.

Data Analysis

1. Descriptive statistics to describe the demographic variables and to know the characteristics of transformational leadership studied. The analysis was performed using percentage, mean and standard deviation, etc. as follows:

(1) Analyzing the model that the transformational leadership of administrators should be developed. The arithmetic mean was used by the researchers in Best' analysis (Best & Kahn, 2006; Boone & Boone, 2012).

(2) Data analysis for frequency and percentage in order to know the status of the sample group, i.e., gender, age range, educational level, position level, professional title, work experience, professional attribute, etc.

(3) Average data analysis, Standard deviations and coefficients distribution to determine the suitability of the indicators for the selection of indicators in the model. by specifying the following criteria, the mean value is equal to or more than 3.00 and the distribution coefficient (CV.) is equal to or less than 20%. (Neter et al., 1996; Everitt & Skrondal, 2010)

2. Inferential statistics, for development model of transformational leadership for administrators. Confirmatory factor analysis (CFA) will be employed for finding and estimate the parameter in this situation as follows:

(1) Data analysis to take into account the suitability of variables to be analyzed for further components by analyzing the Pearson correlation coefficient. In order to determine the degree and direction of correlation, if the variables are not correlated then there is no common component. (Hair et.al, 2010)). Bartlett's is a statistical test of the correlation matrix hypothesis between variables and identity matrix, Bartlett's test of Sphericity and the probability that is there an appropriate correlation to use for further component analysis. By considering the statistical significance and analysis of the Kaiser-Myers-Alkin index. if the value greater than .80 indicates very good, less than .50 indicates invalid (Hair et.al,2010; Kim, et,al, 2015).

(2) Confirmatory Factor Analysis: CFA by testing the conformity of the structural correlation model and weighting the sub variables used to generate the empirical data indicators obtained from the weighted analysis derived from the questionnaire. The sub variables used to generate the indicators and to verify the coherence of the research model are the theoretical models created by the researcher by analyzing the second-order CFA with the empirical data. Thereafter, the coherence of the research model with the empirical data was examined. If the results of the first data analysis do not meet the specified criteria, the researcher must adjust the model to meet the specified criteria. These were according to the viewpoint of various reference such as: Schumacker & Lomax, 2010; Jöreskog & Sörbom, 2012; Kelloway, 2015; Hair, et al, 2021; Poonpong Sooksawang, 2021). the statistical values to be used as the audit criteria are as follows:

- Chi-square Statistics is a statistical value used to test the statistical hypothesis that the function Harmony is zero. The lower the Chi-square Statistics, the closer to zero the model is fit with the empirical data.

- Goodness-of- Fit Index: GFI, which is the ratio of the difference between the harmonious functions from the model before and after the model was adjusted to the harmonization functions before the model was adjusted, GFI values from 0.90-1.00, indicate the model was fit with the empirical data.

- Adjusted Goodness-of-Fit Index (AGFI), in which the GFI is adjusted taking into account the size of freedom (df), which includes the number of variables and the sample size if the AGFI values from 0.90-1.00, indicate the model is fit with the empirical data.

- Root Mean Square Error of Approximation (RMSEA) indicates the dissonance of the model generated with the population covariance matrix which a value of RMSEA less than 0.05, indicates the model is fit with the empirical data.

- And in order to apply the results of the analysis for verify the consistency of the model. The following criteria were selected for indicators showing Factor Loading: 1) equal to or greater than 0.7 for parent component (Farrell & Rudd, 2011), and 2) equal to or greater than 0.30 for sub-element and identifier.

Therefore, the researcher used the statistics based on this reference mentioned as a criterion to check the consistency between the models developed by the researcher from theory and research to empirical data. The variables used to generate the indicators and to verify the coherence of the research model are the theoretical models created by the researcher through analyzing of second-order confirmation components with the empirical data. Thereafter, the coherence of the research model with the empirical data was examined. If the results of the first data analysis do not meet the specified criteria, the researcher must adjust the model to meet the specified criteria.

Research Results

This research effectively identified and validated the educational administration model for the Shenyang Conservatory of Music under Liaoning Province, as outlined in the research objectives. The findings are presented as follows:

1. Component and Indicator determining

The study successfully identified five key components of educational administration, each supported by three indicators, resulting in a comprehensive model comprising fifteen indicators in total. These components are:

(1) Execution of Top Management: This component emphasizes the strategic role of senior leaders in setting visions and policies that align with educational goals. Indicator 1: Vision and Policy Setting. Indicator 2: Strategic Decision-Making. Indicator 3: Leadership and Governance

(2) Middle Management Activities: Focuses on the implementation of policies and the management of day-to-day operations. Indicator 4: Operational Management, Indicator 5: Compliance and Monitoring. Indicator 6: Resource Allocation.

(3) Construction of the Educational Environment: Pertains to the development of a conducive learning atmosphere and infrastructure. Indicator 7: Infrastructure Development. Indicator 8: Learning Environment Enhancement. Indicator 9: Safety and Accessibility.

(4) Work Efficiency: Concerns the optimization of workflow and productivity within the institution. Indicator 10: Process Improvement. Indicator 11: Technology Integration. Indicator 12: Performance Measurement.

(5) Informatization: Involves the integration of information technology into educational administration to enhance efficiency and decision-making. Indicator 13: IT Infrastructure. Indicator 14: Data Management. Indicator 15: Digital Transformation.

2. Model Validation through Second Order CFA

The confirmatory factor analysis supported the structure of the proposed model. The statistical validation revealed excellent fit indices, underscoring the robustness of the educational administration model developed for the Shenyang Conservatory of Music. Key statistics include: Chi-square (χ^2): 55.20, Relative Chi-square (χ^2/df): 1.90, Goodness of Fit Index (GFI): 0.98, Adjusted Goodness of Fit Index (AGFI): 0.92, Root Mean Square Error of Approximation (RMSEA): 0.04. These indices confirm that the model aligns well with the empirical data, indicating a strong theoretical and practical foundation for the administration of the Shenyang Conservatory of Music under Liaoning Province.

In this model, the results demonstrated that all five components and their respective indicators exhibited high predictive power, with R^2 values ranging from 0.729 to 0.958. The descending order of predictive strength is as follows: Construction of the Educational Environment, Informatization, Work Efficiency, Middle Management Activities, and Execution of Top Management. This ranking provides insights into which areas of administration are most influential in shaping the overall effectiveness of the conservatory's management practices. The detail of the statistics of result analysis as shows in Figure and Table below:
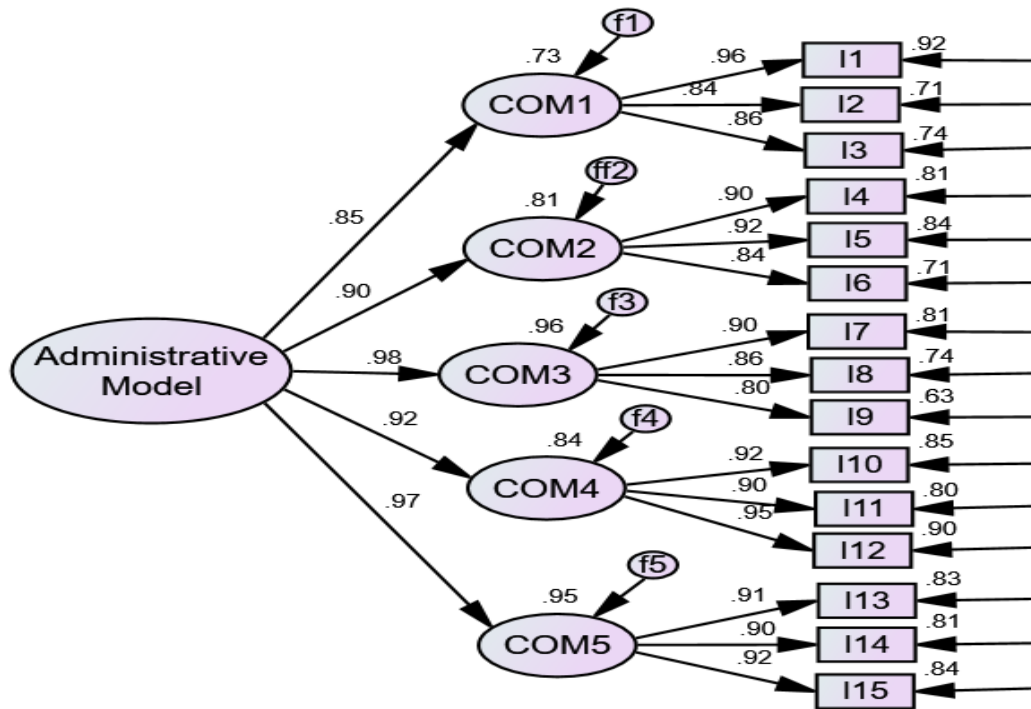
Chi-square=55.204,Relative chi-square=1.904, df=29, p=.002,

GFI= .981, AGFI=.923, TLI=.987,

RMR=.006, RMSEA=.049

Table 1 Show the important statistical of Second Order CFA model of this study

Path of variable in the model			Maximum Likelihood Estimates Regression Weights:		
			Un-standardized	Standardized	R^2 (%)
COM1	<---	Model	1.000	0.854	0.7293 (72.93)
I1	<---	Com1	1.000	0.958	0.9177 (91.77)
I2	<---	Com1	.845	0.858	0.7361 (73.61)
I3	<---	Com1	.925	0.841	0.7072 (70.75)
COM2	<---	Model	1.073	0.901	0.8118 (81.18)
I4	<---	Com2	.929	0.901	0.8118 (81.81)
I5	<---	Com2	1.000	0.915	0.8372 (83.72)
I6	<---	Com2	.865	0.840	0.7056 (70.56)
COM3	<---	Model	1.048	0.979	0.9584 (95.84)
I7	<---	Com3	1.000	0.899	0.8085 (80.82)
I8	<---	Com3	.934	0.862	0.7430 (74.30)
I9	<---	Com3	.871	0.796	0.6336 (63.36)
COM4	<---	Model	1.069	0.918	0.8427 (84.27)
I10	<---	Com4	.924	0.924	0.8537 (85.37)

Path of variable in the model			Maximum Likelihood Estimates Regression Weights:		
			Un-standardized	Standardized	R^2 (%)
I11	<---	Com4	.888	0.896	0.8028 (80.28)
I12	<---	Com4	1.000	0.950	0.9025 (90.25)
COM5	<---	Model	1.098	0.972	0.9447 (94.47)
I13	<---	Com5	.926	0.914	0.8353 (83.53)
I14	<---	Com5	.995	0.903	0.8154 (81.54)
I15	<---	Com5	1.000	0.919	0.8445 (84.45)

Discussion

The confirmatory factor analysis (CFA) outcomes from this research have substantiated the educational administration model for the Shenyang Conservatory of Music under Liaoning Province, underscoring its robustness through strong statistical indices. The discussion explores the implications of these findings and aligns them with current academic perspectives.

    1. Significance of Model Components

        Execution of Top Management, the high predictive power of the Execution of Top Management component is consistent with the transformational leadership theory proposed by Burns (1978) and further expanded by Bass (1985). According to these theories, transformational leaders inspire and motivate followers to achieve extraordinary outcomes, which aligns with the observed strategic decision-making and leadership governance in our model. Studies such as Wang and Guan (2020) have noted the pivotal role of transformational leadership in enhancing teacher engagement and satisfaction, further supporting the relevance of this component in educational settings.

        Middle Management Activities, effective implementation of policies by middle management is crucial for the day-to-day operational success of educational institutions. This aligns with the findings of Sergiovanni (1980), who emphasized the necessity for competent middle management in bridging top management strategies and operational realities. The effectiveness of middle managers in educational settings has been shown to significantly impact the overall efficiency of policy implementation (Li & Gu, 2019), corroborating the importance of this component.

        Construction of the Educational Environment, the strongest predictor in our model, the construction of the educational environment, reflects the foundational theories

of Moos and Huber (2007), who highlight the environment as a critical determinant of educational outcomes. Enhancements in infrastructure, learning conditions, and accessibility are pivotal in fostering an environment conducive to learning and teaching effectiveness, as supported by Cheung and Wong (2018).

Work Efficiency, the emphasis on work efficiency echoes the principles of Lean Management within education, focusing on maximizing value by minimizing waste - a concept explored by Tian, Sanchez, and Zhu (2021). Integration of technology and process improvements, as found in our model, are crucial for increasing administrative efficiency and have been linked with better resource utilization and outcomes in educational settings.

Informatization, the Informatization component relates closely to the increasing demand for digital transformation in educational administration. This is supported by the research of Kim et al. (2015), which indicates that robust IT infrastructure and effective data management practices are essential for modern educational institutions to remain competitive and effective.

2. Theoretical and Practical Implications

The findings from this study not only reinforce existing theories regarding educational administration but also offer practical implications for the enhancement of management practices at the Shenyang Conservatory of Music. By adopting the validated model, the institution can expect to see improvements in administrative efficiency, educational quality, and stakeholder satisfaction. Moreover, the high fit indices reported — GFI, AGFI, and RMSEA — indicate that the model is not only statistically valid but also practically applicable, mirroring the sentiments of Jöreskog and Sörbom (2012) regarding the use of CFA in validating educational models. The practical application of these components can lead to a more dynamic, responsive, and effective educational administration that aligns with contemporary educational demands and expectations.

3. Future Research Directions

Future studies could explore the longitudinal impact of these components on educational outcomes and extend the model to other institutions within different cultural or operational contexts to test its generalizability and robustness. Additionally, further research could examine the interaction effects between these components and other organizational factors such as culture and leadership style

From discussion about the key research results above, researcher have the key opinion, particularly use it for the benefit of the educational administration model as follows: Enhanced Strategic Decision-Making, the component of Execution of Top Management underscores the importance of visionary leadership in shaping strategic directions. By aligning the administration with contemporary educational demands and strategic objectives, the Conservatory can enhance its overall effectiveness. Burns (1978) and Bass (1985) discuss how transformational leadership can inspire and motivate both leaders and followers, elevating organizational morale and outcomes. Further, the research by Cheung and Wong (2018) illustrates how transformational leadership can significantly enhance organizational commitment, directly benefiting the administration's strategic initiatives. Improved Operational Efficiency, the Middle Management Activities component highlights the crucial role of middle managers in translating strategic visions into actionable outcomes. Efficient policy implementation and resource management by middle managers can significantly improve operational efficiency, as suggested by Sergiovanni (1980). This is supported by Tian, Sanchez, and Zhu (2021), who note that effective management practices are critical in influencing positive organizational performance, especially in educational settings. Optimal Learning Environment Construction of the Educational Environment was identified as a key predictor of effective educational administration. This component involves creating conducive learning atmospheres and robust educational infrastructures, which are pivotal in enhancing the quality of education delivered. Glickman, Gordon, and Ross-Gordon (2004) emphasize the impact of a well-constructed learning environment on educational effectiveness. Pierce (1991) also supports this, noting that a supportive educational environment is fundamental to achieving educational success. Increased Administrative Effectiveness, the focus on Work Efficiency aligns with the rinciples of Lean Management, aiming to maximize value by minimizing waste. By enhancing workflow and administrative processes, the Conservatory can achieve higher efficiency, as outlined by Kim et al. (2015). The application of technology and process improvements is essential in this context, as also discussed by Fullan (2012), who highlights the transformative impact of efficiency improvements on educational administration. Technological Advancement, th Informatization component ensures that the Conservatory stays abreast of technological advancements. Integrating information technology into educational administration not only improves

decision-making but also streamlines administrative processes, aligning with the findings of Greenberg (2012). Furthermore, Fullan (2012) discusses how informatization can transform educational practices, enhancing both teaching and administrative capabilities. And can use for Practical Implications and Future Directions, these components collectively contribute to a more dynamic, responsive, and efficient administrative practice at the Shenyang Conservatory of Music. The model's implementation could lead to improved educational quality, better management practices, and enhanced stakeholder satisfaction. For future research, exploring the longitudinal effects of these components on educational outcomes and testing the model's applicability in different cultural contexts could provide deeper insights into its effectiveness and adaptability.

Recommendations

1. Recommendations for Policy Formulation

(1) Strengthen Leadership Development: Policymakers should focus on creating leadership development programs that emphasize transformational and strategic leadership skills for top management at educational institutions. This can enhance decision-making and vision alignment with contemporary educational demands.

(2) Support Middle Management Training: Given the crucial role of middle management in operational success, policies should be developed to offer ongoing training and support to these managers. This could include workshops on resource management, policy implementation, and efficiency optimization.

(3) Invest in Educational Infrastructure: Policies should prioritize investments in educational infrastructure to create a conducive learning environment. This includes not only physical infrastructure but also digital tools and platforms to support the informatization of educational processes.

(4) Promote Technological Integration: Encourage the adoption of advanced technology solutions in educational administration through funding, incentives, and support programs. This will facilitate more effective data management, improved administrative efficiency, and better educational outcomes.

(5) Regular Assessment and Feedback Mechanisms: Establish regular assessment and feedback mechanisms to monitor the effectiveness of educational

administration and adjust policies as needed. This should involve both internal assessments and external audits.

2. Practical Recommendations

(1) Implement a Holistic Leadership Model: The Shenyang Conservatory of Music should implement the validated educational administration model that integrates both transformational leadership at the top level and effective middle management practices. This will ensure a cohesive and unified administrative effort.

(2) Enhance IT Infrastructure: Actively work towards upgrading the IT infrastructure to support informatization. This includes not only hardware and software upgrades but also training for staff to effectively use these technologies.

(3) Develop Customized Training Programs: Based on the identified indicators and components, develop customized training programs for administrators at all levels to enhance their specific skills and competencies.

(4) Adopt Lean Management Principles: Integrate lean management principles into daily administrative operations to improve work efficiency and reduce waste. This could involve re-evaluating existing processes and introducing more efficient workflows.

(5) Focus on Environment and Community Engagement: Enhance the educational environment not just through physical upgrades but also by fostering a community-focused culture that supports open communication, student engagement, and holistic education.

3. Recommendations for Further Research

(1) Longitudinal Studies: Conduct longitudinal studies to assess the sustained impact of the educational administration model on institutional outcomes. This would help in understanding the long-term benefits and areas for improvement.

(2) Cross-Institutional Comparisons: Extend the research to other institutions within different cultural or operational contexts to evaluate the model's generalizability and adaptability. This could involve comparative studies between different types of music conservatories or other specialized institutions.

(3) Impact on Educational Outcomes: Investigate the direct impact of the model's components on specific educational outcomes, such as student performance, faculty satisfaction, and institutional reputation.

(4) Technological Advancements: Explore the ongoing impact of new technologies on educational administration. This could include studies on artificial intelligence, machine learning, and blockchain in educational settings.

(5) Integration with Pedagogical Practices: Examine how administrative changes influenced by the model can be effectively integrated with pedagogical practices to enhance both teaching and administrative efficiency.

References

Bass, B. M., & Avolio, B. J. (1994). **Improving organizational effectiveness through transformational leadership**. Thousand Oaks: Sage Publications.

Best, J. W., & Kahn, J. V. (2006). **Research in education**. (10th ed.). Boston: Pearson Allyn and Bacon.

Boone, H. N., & Boone, D. A. (2012). Analyzing Likert data. **Journal of Extension**, 50(2), Article 2TOT1.

Burns, J. M. (1978). **Leadership**. New York: Harper & Row.

Cheung, A. C. K., & Wong, P. M. (2018). The effects of transformational school leadership on teacher commitment and teacher job satisfaction: A mediation model. **Educational Management Administration & Leadership**, 46(1), 20-37.

Fullan, M. (2012). **Stratosphere: Integrating technology, pedagogy, and change knowledge**. Toronto: Pearson Canada.

Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2004). **Supervision and instructional leadership: A developmental approach**. (6th ed.). Boston: Pearson Allyn and Bacon.

Greenberg, M. (2012). **Five essential skills for leadership in the 21st century**. Retrieved August 28, 2024, from https://www.psychologytoday.com/us/blog/the-mindful-self-express/201206/five-essential-skills-leadership-in-the-21st-century

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). **Multivariate data analysis**. (7th ed.). Upper Saddle River: Pearson.

Jöreskog, K. G., & Sörbom, D. (2012). **LISREL 9.1: LISREL syntax guide**. Chicago: Scientific Software International.

Kim, J., Heo, J., Jang, H., Park, B., & Shin, H. (2015). Effect of leadership style of CEO on
        self-leadership and organizational effectiveness. **Journal of the Korea Academia-
        Industrial Cooperation Society**, 16(12), 8424-8436.

Leithwood, K., & Jantzi, D. (2005). A review of transformational school leadership research
        1996-2005. **Leadership and Policy in Schools**, 4(3), 177-199.

Li, S., & Gu, Q. (2019). Building a shared vision in Chinese and Western educational
        contexts: Challenges and prospects. **Educational Management Administration &
        Leadership**, 47(1), 63-80.

Ministry of Education of the People's Republic of China. (2018). **Notice on the issuance of
        the "Guidelines for the Evaluation of Undergraduate Teaching Work in
        General Colleges and Universities"**. Beijing: Ministry of Education.

Moos, L., & Huber, S. G. (2007). **School leadership: International perspectives**.
        Dordrecht: Springer.

Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). **Applied linear
        statistical models**. (4th ed.). Chicago, IL: Irwin.

Pierce, J. (1991). **Effective schools for national original language minority students**.
        Washington DC: The Mid-Atlantic Equity Center.

Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student
        outcomes: An analysis of the differential effects of leadership types. **Educational
        Administration Quarterly**, 44(5), 635-674.

Schumacker, R. E., & Lomax, R. G. (2010). **A beginner's guide to structural equation
        modeling**. (3rd ed.). New York: Routledge.

Sergiovanni, T. J. (1980). **Educational governance and administration**. Englewood Cliffs:
        Prentice-Hall.

Tian, Q., Sanchez, J. I., & Zhu, Y. (2021). Leader humility and team innovation: Investigating
        the substituting role of task interdependence and the mediating role of team voice
        climate. **Journal of Organizational Behavior**, 42(5), 619-633.

Wang, F., & Guan, H. (2020). Transformational leadership and teacher work engagement:
        The mediating role of psychological capital and the moderating role of teacher
        professional identity. **Educational Psychology**, 40(3), 318-337.