Organizational Climate, Managerial Skills, and Professional Competence of School Heads: A Structural Equation Model on School Effectiveness

Michelle T. Sardido, Elleine Rose A. Oliva, EdD

University of Mindanao- Main Campus, Philippines

DOI: https://dx.doi.org/10.47772/IJRISS.2025.90400496

Received: 01 May 2025; Accepted: 06 May 2025; Published: 23 May 2025

ABSTRACT

Using the SEM, this study aimed to determine the best-fit model for school effectiveness in organizational climate, school heads' managerial skills, and professional competence. The study utilized stratified random sampling to select 400 respondents from around Region XI. Standardized test questionnaires were distributed to respondents to collect study data. Statistical tools were used for data analysis, including mean, standard deviation, Pearson product-moment correlation, linear regression, and SEM. The results revealed that the levels of organizational climate, professional competence, managerial skills, and school effectiveness were consistently high**,** with a significant relationship among these variables, confirming that all exogenous variables significantly influence school effectiveness and further reflected significant relationships among the variables. The results showed that the third model satisfied the goodness of fit among the three models. Which best exhibited school effectiveness as reflected by the level of significance of the indicators: organizational climate, managerial skills, and professional competence. This indicates its potential to contribute towards improving the effectiveness of school heads. Moreover, the study's findings can significantly enhance one of the 17 sustainable and developmental goals, Goal 4, or Quality Education.

Keywords: educational management, organizational climate, professional competence, managerial skills, school effectiveness, structural equation model, public elementary school teachers, Philippines.

SDG Indicator: #4 (Quality Education

INTRODUCTION

Achieving school effectiveness is essential for student success, yet many schools struggle due to the lack of an appropriate approach. Although providing factual knowledge and creating a model is crucial, school effectiveness continues to decline. This is problematic as it directly impacts student outcomes and overall educational quality. Key factors like leadership quality, teaching practices, school culture, and resource availability determine success, but under-resourced communities face additional barriers, such as inadequate funding and facilities. Despite the evidence from García-Carmona et al. (2021) showing that strong leadership, effective teaching, and positive school culture enhance effectiveness, the absence of a well-evaluated conceptual basis for school settings contributes to this failure. Thus, this study addresses the ongoing inability to achieve school improvement, as Arcaro (2024) cites.

Furthermore, García-Carmona and Castillo-López (2021) emphasize the importance of addressing social, cultural, and academic variables at both the student and school levels because peer interactions and school institutional culture shape a student's academic performance and overall learning experience. This perspective supports the idea that an inclusive, supportive, and well-rounded environment for children must be fostered to improve student success and school effectiveness. Thus, a holistic approach is needed to improve high school effectiveness.

The endogenous variable is the school's effectiveness, which will be measured with the following: Effective Leadership, the administrator's ability to establish a shared mission and associated goals, and to provide

instructional guidance appears to be a key factor in driving high-performing schools (Ibrahim & Daniel, 2019). To attain high performance, a strong curriculum and structured curricular goals at the school and classroom levels, emphasizing literacy, are needed (Edmonds, 2020). Managerial Skills such as leadership would help increase the school's effectiveness so that students, faculty, and parents will respect the school and the school head because of how he leads. Moreover, a good organizational climate and professional competence help create a peaceful environment, encouraging students and teachers to teach and learn.

Professional development, high-performing schools often afford teachers opportunities to both collaborate and attend meaningful professional development training; school culture and orderly environment that encourages parental involvement while emphasizing high academic standards is a consistent feature of schools that are beating the odds (Edmonds, 2020; Khusni & Mahmudah, 2020); and ongoing data use for school improvement refers to staff, including principals, often reviewing student data and making decisions based on the patterns observed. Grissom et al. (2021) presented this assumption that school leadership matters for school outcomes, including student achievement. Thus, school heads play a serious role in raising standards and expectations in teaching and learning (Rester, 2020), highlighting how professional development, school culture, and leadership collectively influence school outcomes and student achievement.

School effectiveness plays a crucial role in improving student outcomes and educational quality. Key factors contributing to effective schools include strong leadership, effective teaching, a positive school culture, and parental involvement (García-Carmona & Castillo-López, 2021). Additionally, adequate resources, such as funding and facilities, are essential, especially in under-resourced communities, as they directly impact school performance (Scheerens, 2021). Research on educational effectiveness focuses on identifying and implementing strategies to maximize school success. Education systems continuously adapt to challenges to enhance school effectiveness and promote excellence (Volansky, 2020).

Furthermore, education is a key factor in determining a country's quality; it is intended to develop quality people who can compete in global competences, be responsible, and anticipate the future. The school is an educational institution founded to develop a more educated human resource, and the quality of a nation is supposed to improve due to the existence of schools (Hartati et al., 2019). Thus, school effectiveness has always been the subject of argument among stakeholders.

The organization uses organizational climate to help employees understand the work environment and direct them to proper behavior (Kuenzi et al., 2020). A positive organizational climate is a significant predictor of school effectiveness. Organizational climate is more concrete for the employees and more accessible to change than culture. The school environment is essential when evaluating students, teachers, and other stakeholders' well-being. Those who feel their work environment is supportive and caring have high self-esteem, self-worth, and job satisfaction in their schooling, and it is hard for them to quit a responsible workplace (Villanueva & Meer, 2021).

The job performance of school staff, including teachers and principals, impacts the quality of education. As the primary facilitators of learning, teachers must constantly enhance their teaching strategies, subject-matter knowledge, and classroom management skills to ensure that students receive the best education possible. Through ongoing oversight, principals should create a supportive environment that helps teachers become more competent. It would also encourage the system's members to develop good interpersonal ties, work together, and be motivated to achieve school objectives (Giami & Obiechina, 2019). Hence, with the organizational climate that school heads will provide the staff, the overall performance of the school is expected to be influenced.

Managerial skills are also essential in any organization (Tamhane & Ganesan, 2019). It establishes the conditions and expectations for excellent instruction and the developing learning culture for both educators and students. Principal managerial skills refer, in this context, to the capacity to plan, oversee, organize, coordinate, control, make decisions, and start actions that will assist and support teachers in achieving the school's goals and objectives. Principals' practices represent their competencies in various leadership areas, and research has attempted to investigate the relationship between these behaviors/practices and students, teachers, and school outcomes. Managerial skills include technical, human, conceptual, communication, and supervisory skills.

School heads often encounter problems such as budget shortages and social divides (Kruse et al., 2020), so they may not know the best solution. Thus, managerial skills are being challenged in terms of how they will cope with the present situation and be able to give the quality of education that their clientele expects from them.

The managerial skills of school heads in terms of technical skills involve facilitating and providing opportunities for teachers to improve their professionalism through various activities in or out of school. The ability to use knowledge, methods, and techniques of a specific discipline is crucial. Teachers and school heads are examples of people with technical skills, as they are recognized as experts in their discipline and are presumed to have the ability to supervise others. Human skills, organization, and utilization of resources for achieving goals involve understanding, creating motivation, and working with employees. Conceptual, communication, and supervisory skills are also vital in ensuring effective school management and fostering an environment that supports both educators and students.

Professional competence is also identified as a significant factor in school heads' effectiveness. Studies suggest that high levels of professional competence among heads reflect their effectiveness. Instructional supervision is a type of school- based (in-school) supervision carried out by the school staff (principals, department heads, senior teachers, and assigned supervisors) aimed at providing guidance, support, and continuous assessment to teachers for their professional development and improvement in the teaching-learning process, which relays on the system that is built on trust and collegial culture (Gordon & Espinoza, 2020).

In addition, according to Giami and Obiechina (2019), the duties of a teacher in accomplishing organizational goals at a given time in the school system can be described as their work performance. Because of this, teachers require continual support in terms of training, participation in decision-making, and remuneration to give them a sense of belonging and improve their overall work performance to achieve school goals and objectives which may also significantly impact on their school effectiveness.

Moreover, the previously mentioned correlation between teachers' performance and school heads' overall effectiveness is reflected in the findings of Manla (2021). Their study concluded that a positive school climate influences the commitment of teachers, leading to improved school performance. Mailool et al. (2020) further emphasized the impact of positive climates provided by school heads to encourage performance-based behavior of teachers. Both studies cited the effect of positive environments on teachers. Positive environments improve their capability to contribute to the effectiveness of school heads.

By strengthening teachers' school commitment, better school performance is to be expected as a result. Hence, school heads are responsible for providing a positive and collaborative environment for teachers and staff to increase the school's productivity. Mailoole et al. also cited this to help align the objectives of the staff to that of the school, increasing overall efficiency. Wherein the commitment of the teachers is said to promote a sense of willingness for the betterment of the school.

This study is anchored on Systems Theory (Bertalanffy, 1968 as cited by Van Assche et al., 2019), which conceptualizes schools as open systems where various components, such as leadership, organizational climate, resources, and teacher competencies, interact to achieve desired outcomes. In the context of school effectiveness, Systems Theory emphasizes the interconnectedness of these elements, suggesting that improvements in one area, such as managerial skills or professional competence, have cascading effects on the entire system. This framework provides a holistic perspective, enabling researchers to analyze how the interplay between organizational climate, leadership, and professional competence contributes to school performance (Banathy, 1996 as cited by Marciniak, 2024).

Transformational Leadership Theory (Bass, 1987 as cited by Reza, 2019) supports this framework by highlighting the influence of leadership on school effectiveness. Transformational leaders inspire and motivate their team, fostering a shared vision and encouraging stakeholder collaboration. School heads who adopt this style can positively shape the organizational climate, creating an environment conducive to teacher engagement and student achievement. Transformational leadership aligns closely with sustainable and effective school management goals by empowering teachers and promoting a sense of shared purpose.

Herzberg's Two-Factor Theory (1959 as cited by Miah & Hasan, 2021) and Social Exchange Theory (Blau, 1964 as cited by Fan et al., 2019) offer further insights into the mechanisms driving school effectiveness. Herzberg's theory distinguishes between hygiene factors, such as working conditions and organizational climate, and motivators, such as recognition and professional growth opportunities, directly impacting teacher satisfaction and performance. Meanwhile, Social Exchange Theory emphasizes reciprocal relationships between school heads and teachers, wherein fair, supportive, and transparent leadership practices encourage teachers' commitment and effort. These theories provide a comprehensive framework for understanding the variables influencing school effectiveness, underscoring the need for strategic leadership and a supportive organizational climate.

Presented in Figure 1 is the conceptual framework of the study, showing the relationships between organizational climate, managerial skills of school heads, the professional competence of school heads, and school effectiveness. This is demonstrated by a single-headed arrow originating from three exogenous variables and directed towards the endogenous work design. The first exogenous variable is organizational climate, which will be measured in terms of collegial, professional teacher behavior, achievement press, and institutionalized vulnerability.

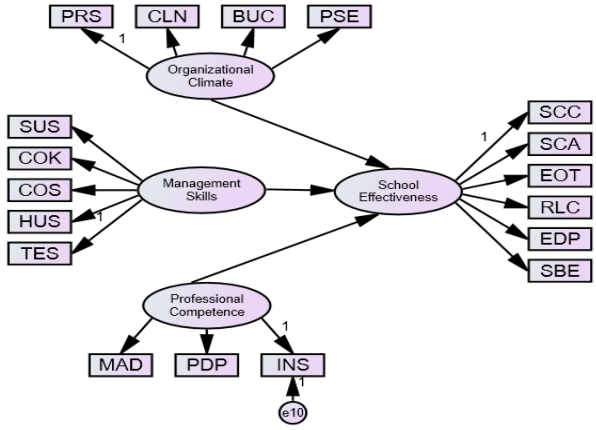

Figure 1. Hypothesized Model on Organizational Climate, Management Skills, and Professional Competencies of School Heads to School Effectiveness

The interplay between organizational climate, managerial skills, and professional competence of school heads is pivotal in determining school effectiveness. While existing research underscores the significance of each factor individually, there is a notable gap in studies employing structural equation modeling (SEM) to elucidate the complex interrelationships among these variables. For instance, Yildirim (2020) highlights the impact of school climate on effectiveness, and Gamala and Marpa (2022) examine the influence of school environment and managerial skills on performance. However, these studies do not comprehensively integrate the combined effects of organizational climate, managerial skills, and professional competence on school effectiveness. Addressing this gap is crucial, as understanding these dynamics can inform targeted interventions to enhance educational outcomes. Moreover, the evolving educational landscape, marked by rapid technological advancements and shifting pedagogical paradigms, necessitates a deeper exploration of how these factors collectively influence school effectiveness. Employing SEM in future research could provide a nuanced understanding of these relationships, thereby guiding the development of comprehensive strategies for school improvement.

The study's primary purpose is to determine the best-fit model for School Effectiveness in the context of organizational climate, school heads' managerial skills, and professional competence. Specifically, this study has the following objectives: To describe the Organizational climate of public elementary schools by providing structure, clarifying norms, building cohesiveness, and promoting a standard of excellence; To determine the level of Professional Competence of school heads in elementary public schools in terms of instructional supervision, professional development practices, and management behavior; To assess the level of managerial skills of the school heads in public elementary school concerning technical skills, human skills, conceptual skills, communication skills, and supervisory skills.

Second, it will ascertain the effectiveness of public elementary schools in terms of solid curriculum, school culture, and ongoing data use for school improvement. Third, it will establish a significant relationship between the managerial skills of school heads and school effectiveness in public schools, the professional competence of teachers and school effectiveness in public schools, and organizational climate and school effectiveness in public elementary schools. Lastly, it will recognize the best path model that predicts school effectiveness in public elementary schools.

The following null hypotheses will be tested at a 0.05 level of significance. There is no significant relationship between school heads' organizational climate, managerial skills, professional competence of teachers, and school effectiveness. There is no significant influence of school heads' managerial skills, professional competence of teachers, and organizational climate on school effectiveness, and there is no best-fit model for school effectiveness in public elementary schools.

The significance of this research is posited on the factors relevant to school effectiveness that can develop the skills and encourage teachers to improve their competence and consider organizational climate in achieving excellence in school performance. The study's findings can significantly improve one of the 17 sustainable and developmental goals—Goal 4, Quality Education. Providing significant information to school heads in the global community on bridging the gaps between school effectiveness and variables affecting it, specifically organizational climate, managerial skills, and professional competence, can improve how they build cohesiveness, conceptual skills, communication skills, and management behavior that could lead to a higher quality of education. Additionally, it would enrich their comprehension by providing them with new knowledge, theories, and methodologies and enhancing skills necessary for school heads and teachers to achieve school effectiveness.

Similarly, this study could be an avenue for social change by researching how organizational climate managerial skills and professional competence can impact school effectiveness. It can provide school leaders with important knowledge on how their skills and abilities affect the performance output of their school. Teachers would also gain insights into the relevance of involving themselves in professional seminars and even continuing studying, thereby increasing their professional competence, which helps them grow professionally.

Locally, the study results serve as the basis for future actions and beneficial information within the Davao Region. The public elementary school heads and teachers or the Department of Education (DepEd) will gain reliable and accurate raw data about the impact on school effectiveness with the organizational climate, school heads' managerial skills, and teachers' professional competence.

Finally, future researchers will obtain relevant information to conduct follow-up studies on the parameters that affect school outcomes. The study's findings can provide significant information to scholars in the global community by bridging the gaps between school effectiveness theory and the common application, thereby doing further research with the literature provided. They may also apply this information for further research in other regions, which will serve as their foundation for conducting localized studies.

METHOD

In this section, the researcher describes the methods used specifically the research respondents, instruments, design, and data gathering procedure and data analysis.

The respondents of this study came from the general population of 22,184 public elementary school teachers of Region XI. A sample size of 378 from the population was generated using an online Raosoft calculator. This calculator has been widely used in social science research due to their user-friendly nature, as evidenced by its frequent application in studies (Nakku et al., 2020; Othman et al.,2023). Although the generated sample size is only 378, the study included 400 respondents around Region XI to obtain reliable and unbiased estimates (Ranatuga & Priyanath, 2020).

The stratified random sampling technique was utilized in the study, ensuring that every individual in the

population has an equal opportunity to be selected. Davao Region, designated as Region XI, comprises five (5) provinces, including Davao del Sur, Davao del Norte, Davao Oriental, Davao de Oro, and Davao Occidental. The provinces are divided into eleven (11) divisions, comprising 400 respondents. Teachers from all of these school divisions are chosen through a random selection process. Random sampling ensures that everyone in a population has an equal chance of being selected as a respondent (Thomas et al., 2020). To accurately represent the general population, the sample needs to encompass individuals with various characteristics, such as age, height, fitness level, and socioeconomic status.

The criteria for selecting the respondents include teachers with at least 3 years of experience in public elementary schools within the Davao City Region. They must sign the Certificate of Consent Form. Teachers hired recently have less than two years of teaching experience, and those who reside outside of Region XI were excluded from the study. The survey questionnaires were not distributed to school heads, administrative officers, non-teaching personnel, parents, or students. Thus, the respondents who possess the necessary expertise to provide information on the study conducted are exclusively teachers. Moreover, schools with principals with less than two years of residency cannot participate in the study, as teachers will assess their managerial skills and professional competence for at least two years.

Participation in this study is completely voluntary. Should the chosen participants experience any uneasiness or hesitation regarding their involvement, they can withdraw from the study without any constraints. Communicating their decision not to participate in the study verbally is sufficient, but a replacement was selected to complete the survey to maintain the sample's integrity. Respondents who opted out of the survey did not incur any financial penalties or were obligated to provide a written explanation. Respondents who committed falsification, plagiarism, or ethical violations were excluded from the study. Additionally, people with pre-existing health conditions and special needs were not eligible for consideration.

Four (4) adapted questionnaires were used to collect study data. The first questionnaire is focused on organizational climate as outlined in the Principal Self-Efficacy, School Climate, and Teacher Retention: A Multi-level Analysis Dahlkamp et al., (2018) as referenced by Lester et al. (2020). It comprises twenty (20) items that cover the following: providing structure, clarifying norms, building cohesiveness, and promoting standards of excellence. The second questionnaire measures the professional competence of school heads in the following areas: technical skills, human skills, conceptual skills, communication skills, and supervisory skills. Based on Imhangbe et al. (2019).

The third questionnaire is centered on the managerial skills of school heads, with twenty-nine (29) questions related to technical, human, conceptual, communication, and supervisory skills. Based on Himawan et al. (2019) in the journal of Education, health, and community psychology. It includes forty-four (44) items and will measure the following indicators: instructional supervision, professional development practice, and management behavior. Lastly, the fourth questionnaire is about school effectiveness with the following indicators: school climate, school administration, the effectiveness of teachers, the relationship with the local community, educational practices, and students' sense of belongingness to the surrounding environment. It consists of thirty-eight (38) questions based on Assessing principals' perceptions of school effectiveness in the Palestinian Schools Faculty of Educational Science teachers training as conducted by Abd Rabo and Hashaikeh (2020).

The instrument was modified to make it appropriate for this study, though it has been utilized in numerous studies in the past. Six (6) expert validators validated it to make it more applicable and credible. Terms utilized in the four (4) survey questionnaires were improved to be more appropriate in the local setting and earned a total average score of .960. After validation, pilot testing was carried out to determine Cronbach's Alpha Values for each variable. Organizational climate has a Chronbach’s alpha of .954, Managerial skills of .962, and Professional Competence of .963. Thirty (30) public elementary school teachers were invited to participate in the pilot testing to assess the reliability of the questionnaires. The results from pilot tests showed that the overall mean of the four variables is .961, indicating that its internal consistency is excellent. Individually, the organizational climate has a Cronbach Alpha Value of .955, managerial skills of .962, and professional competence of .961, and school effectiveness of 964; Each variable has an excellent internal consistency.

In interpreting the level of the organizational climate, managerial skills and professional competence of school heads and school effectiveness, the following five orderable gradations with their respective range of means and descriptions were considered: 4.20-5.00 which indicates very high with a descriptive interpretation of measures being manifested and/or observed; 3.40-4.19 which indicates high with a descriptive interpretation of measures being oftentimes manifested and/or observed; 2.60-3.39 which indicates moderate with a descriptive interpretation of measures being sometimes manifested and/or observed; 1.80-2.59 which indicates low with a descriptive interpretation of measures being seldom manifested and/or observed; and 1.00-1.79 which indicates very low with a descriptive interpretation of measures being almost never manifested and/or observed.

This study employed a quantitative, non-experimental research design, focusing on descriptive-causal analysis. A quantitative non-experimental research design mainly focuses on observing natural occurrences without manipulating any aspect of the setup (Salmons, 2023). With this level of control, casual effects can be determined. Implementing such research design helps this study analyze complex concepts in accordance to the relationship of the different variables.

The structural equation modeling (SEM) technique was utilized to create the best-fit model for the study. Structural equation modeling has been a popular statistical tool in recent years for scientific studies in social science (Hair et al., 2021). The ability to measure direct and indirect correlations among causal variables using a single model makes it the most efficient and suitable statistical technique in this study (Kline, 2021).

As part of the University of Mindanao's protocol for data collection, a permission letter was sent to the Dean of the Professional School to allow the researcher to conduct the study. Upon approval, the researcher drafted a letter requesting permission from the Regional Director of DepEd Region XI to conduct the study. After completing the required processes, the researcher was given an endorsement letter to administer the questionnaires to the respondents. The assistance of the schools' Administrative Officers was sought to identify the respondents, to whom consent was also asked. Following this, the researcher wrote another letter for the respondents to participate in the study. A hard copy of the survey questionnaire and the Informed Consent Form signed by the respondents are Appended to the letter. The researcher provided an informed consent form and survey questionnaire and personally distributed them to the respondents. The data collection for the study commences in April 2024.

After retrieving the survey questionnaires, data were collated, tabulated, analyzed, and interpreted using statistical measures such as mean and standard deviation to describe both the exogenous and endogenous variables. Pearson correlation was used to determine the significance of the relationship between the exogenous and the endogenous variables. Furthermore, a linear regression analysis was employed to identify the factors influencing the dependent variable based on the given set of independent variables. Finally, structural equation modeling was used to examine and assess multivariate causal relationships. This study used it to assess the hypothesized models' interrelationships and construct a model that best fits the professional learning community. For structural models, the standard criterion statistics that were used to evaluate the goodness of fit are the following: p-value >0.05, 0<CMIN/DF<2, GFI>0.95,CFI >0.95, NFI>0.95, TLI>0.95, <0.05, and p-close>0.05 (Guhao, 2019).

The researcher adhered to the ethical guidelines set by the University of Mindanao Ethics and Review Committee (UMERC-2024-276) throughout the study, ensuring voluntary participation with informed consent to avoid deceit and ensure participants understood the study's purpose and implications. Personal information was kept confidential in line with the Data Privacy Act of 2012, and questionnaires were distributed only with approval from school heads and administrative officers. Data security was maintained during transportation, and all collected questionnaires were organized and analyzed without conflict of interest. The study followed ethical standards to protect participants from physical, psychological, or socioeconomic risks, with no direct compensation provided. The research aimed to benefit participants by improving school systems, especially regarding professional learning communities. Plagiarism was avoided using tools like Turnitin and Grammarly, and steps were taken to prevent data manipulation or inaccuracies. The researcher ensured truthful reporting, with the first author being responsible for the publication, subject to approval. Compliance with UMERC's ethical guidelines was maintained throughout.

RESULTS AND DISCUSSION

In this part, the data collected on organizational climate, management skills, professional competence, and school effectiveness are presented, interpreted, and analysed in line with the research objectives.

Organizational Climate

As shown in Table 1 is the level of organizational climate within the school setting provided by school heads measured in terms of providing structure, clarifying norms, building cohesiveness and promoting standard of excellence. The indicator providing structure has the highest mean of 3.75 with a standard deviation of 0.67 while clarifying norms is the lowest with a mean of 3.61 and a standard deviation of 0.68. It obtained an overall mean and standard deviation of 3.72 and 0.67 respectively, which is described as high.

This indicates that school heads often manifest a high level of organizational climate. The high level of organizational climate within the school is anchored by providing structure, clarifying norms, building cohesiveness, and promoting a standard of excellence. The results are evident when school heads exhibit clear structures of the school's environment through rules, identify appropriate behaviors or procedures for certain activities, establish relations for an enhanced school climate among individuals and set standards by being an example to peers.

Table 1:Level of Organizational Climate

Indicators	**SD**	**Mean**	**Descriptive Level**
Providing Structure	0.67	3.75	High
Clarifying Norms	0.68	3.61	High
Building Cohesiveness	0.67	3.78	High
Promoting Standard of Excellence	0.65	3.73	High
Overall	**0.67**	**3.72**	**High**

Moreover, parallel to the study of Nabella et al. (2022), the attention of school leaders towards implementation of rules connected by shared goals within their own setting among peers contributes to the development of a better organizational climate. This supports the results of the two indicators with the highest mean values; building cohesiveness and providing structure, relating to the claims of Rahmi et al (2019).

The manifested results are in line with the findings of Day et al. (2020), Nabella et al. (2022) and Rahmi et al. (2019), which claim that leadership has a significant direct relationship with organizational climate. Indicating the vital role of the presence of school heads in supporting the environment of their colleagues by setting the right atmosphere within the campus. Day et al. further concluded the effect of motivation among teachers influenced by school heads' supportiveness and enhanced leadership significantly creates an impact towards classroom practices.

Management Skills of School Heads

Displayed in Table 2 is the level of management skills of school heads within the campus in terms of technical skills, human skills, conceptual skills, communication skills and supervisory skills. The level of management skills of school heads attained an overall mean of 3.62 or higher and an overall standard deviation of 0.58 indicating that a high level of management skills among school heads is oftentimes manifested within the school environment. Each indicator presented mean scores ranging from 3.60 to 3.65 all under a descriptive level of high. With the indicator technical skills having the highest mean of 3.65 and a standard deviation of 0.61 described as high. While the lowest mean of 3.60 is under the indicator supervisory skills also described as high having and has a standard deviation of 0.67.

Their management skills were most evident through their technical skills and communication skills based on

the mean values presented in the table. In line with this, the high level of management skills was evident among school heads through their knowledge of their own work or, as mentioned, their technical skills. And the way of motivating their subordinates, critical thinking skills, the way of interacting with peers and method of guiding other individuals, the school heads' communication skills.

Table 2: Level of Management Skills of School Heads

Indicators	**SD**	**Mean**	**Descriptive Level**
Technical Skills	0.61	3.65	High
Human Skills	0.67	3.61	High
Conceptual Skills	0.65	3.61	High
Communication Skills	0.67	3.62	High
Supervisory Skills	0.67	4.35	Very High
Overall	**0.58**	**3.62**	**High**

The results are correlated with the findings of Komalasari et al. (2020), Sulaiman et al. (2020) and Mahmud et al (2021) pointing out the importance of management skills among school heads and leaders in general; within professional settings. Management skills when manifested improve the overall atmosphere and quality of school environments as per Komalasari et al. Moreover, Sulaiman et al. cited that the management skills of heads are critical in improving both the skills of other teachers and student quality. Further, these correlations could also be seen in perspective more in line with the identified high level of technical skills and communication skills among school heads followed by human skills and the two other indicators, as it impacts the motivation of school staff to enhance the quality of education of students.

Professional Competence

Presented in Table 3 is the level of professional competence among school heads in terms of *instructional supervision, professional development practice, and management behavior.* An overall mean rating of 3.57 was obtained, which is described as high. Implying that the level of professional competence of school heads is often manifested. Separately, the indicator with the highest mean of 3.59 is *professional development practice* with a standard deviation of 0.68, and then the lowest is *instructional supervision* with a mean of 3.54 and a standard deviation of 0.71. All the indicators were credited with a high level of professional competence. This is seen when school heads demonstrate remarkable leadership behavior, provide progression programs, and give support and attention to the teachers.

The manifestations support the idea of Tantawy (2020), Aquino et al. (2021), and Baggay et al. (2021) that school heads must attribute impressive professional development practice for career progression, leadership skills such as planning, regulating and directing, and should support teachers in terms of providing them with necessary interventions.

Table 3: Level of Professional Competence

Indicators	**SD**	**Mean**	**Descriptive Level**
Instructional Supervision	0.71	3.54	High
Professional Development Practice	0.68	3.59	High
Management Behaviour	0.64	3.57	High
Overall	**0.63**	**3.57**	**High**

Teachers also discover a sense of trust, respect, and motivation once their school heads fulfill each indicator. In addition, teachers grow and develop professionally when school heads allow themselves to cultivate theirs.

Moreover, teachers experiencing good professional competence in their workplace would help them focus on teaching and eliminate organizational problems. This underscores the crucial role of school heads in creating a conducive work environment.

School Effectiveness

Depicted in Table 4 is the level of school effectiveness in terms o*f school climate, school administration, effectiveness of teachers, the relationship with local community, educational practices, and student's sense of belongingness to the surrounding environment.* The level of school effectiveness obtained an overall mean of 3.64, which is described as high. This indicates that school effectiveness is often manifested. The *effectiveness of teachers* registered with the highest mean rating of 3.72 and a standard deviation of 0.66 while *Student's Sense of Belongingness to the Surrounding Environment reg* registered with the lowest mean of 3.54 and a standard deviation of 0.64 which is also classified as high. This is evident when schools can accumulate different achievements due to the student's hard work combined with the teacher's effective teaching. School effectiveness can also be seen when the community collaborates with the school to share significant and relevant knowledge with students.

The high level of school effectiveness is manifested through school climate, school administration, the effectiveness of teachers, the relationship with local communities, educational practices, and student's sense of belongingness to the surrounding environment.

Table 4: Level of School Effectiveness

Indicators	**SD**	**Mean**	**Descriptive Level**
School Climate	0.65	3.65	High
School Administration	0.65	3.60	High
Effectiveness of Teachers	0.66	3.72	High
The Relationship with Local Community	0.66	3.64	High
Educational Practices	0.66	3.68	High
Students' Sense of Belongingness to the Surrounding Environment	0.64	3.54	High
Overall	**0.60**	**3.64**	**High**

The high level of school effectiveness is manifested through school climate, school administration, the effectiveness of teachers, the relationship with local communities, educational practices, and student's sense of belongingness to the surrounding environment.

The findings correspond with the claims of Balfanz et al. (2024), Javornik and Mirazchiyski (2023), and Lema and Mwila (2022) that a school's effectiveness mostly depends on its connection to students, teachers, and the community. Students' academic performance, general well-being, and long-term results are all significantly influenced by school connectivity. Additionally, teachers and school administrators are valued when they support their students.

Moreover, a positive school climate can be achieved with effective teachers (Aydin & Karabay, 2020). Student-teacher interactions significantly impact students as they affect their engagement, academic performance, and motivation. Community involvement in school activities is also crucial, as it increases accountability for learning results and school resources, thereby enhancing the school's overall effectiveness.

Significance of the Relationship between Organizational Climate and School Effectiveness

Laid out in Table 5 is the relationship between organizational climate and school effectiveness. It can be seen in the table that there is a significant correlation between organizational climate and school effectiveness, with

an overall correlation coefficient of .722, which is significant at a 0.05 level of significance. In particular, all of the organizational climate indicators corresponded to school effectiveness were found to be significant at a 0.05 level of significance, with *providing structure* having a correlation coefficient of .694, *clarifying norms* with .681, *building cohesiveness* with .710, and *promoting standard of excellence* with .712.

The school can achieve its educational, organizational, and administrative objectives through strong leadership and effective teaching, which serve as indicators of its effectiveness. Thus, supportive actions of school leaders and cohesiveness among teachers are key factors that contribute to cultivating a positive school climate. The combined influence of these two elements can be seen as a significant determinant of school efficacy. In addition, the findings agree with Herzberg's Two-Factor Theory (1959 as cited by Miah & Hasan, 202) that organizational climate and motivational factors have a direct impact on teachers' satisfaction and level of teaching.

The findings also align with the assertions made by Özgenel (2020), highlighting the crucial role of organizational climate in defining and fostering school effectiveness. Colleague interactions among teachers and the presence of supportive and directive principles significantly influence a school's effectiveness.

Table 5.1: Significance of the Relationship between Organizational Climate and School Effectiveness

School Effectiveness	**Organizational Climate**						
	School Climate	School Administration	Effectiveness of Teachers	Relationship with Local Community	Educational Practices	Students Sense of Belongingness	**Overall**
Providing Structure	.624** .000	.673** .000	.628** .000	.629** .000	.632** .000	.627** .000	**.694** .000**
Clarifying Norms	.604** .000	.642** .000	.621** .000	.610** .000	.639** .000	.615** .000	**.681** .000**
Building Cohesiveness	.633** .000	.654** .000	.681** .000	.623** .000	.664** .000	.659** .000	**.710** .000**
Promoting Standard of Excellence	.651** .000	.663** .000	.683** .000	.649** .000	.664** .000	.611** .000	**.712** .000**
Overall	**.693** .000**	**.726** .000**	**.721** .000**	**.693** .000**	**.711** .000**	**.693** .000**	**.772** .000**

Significance of the Relationship between Management Skills and School Effectiveness

Table 6 shows the relationship between management skills and school effectiveness of school heads. There is a significant relationship between management skills and school effectiveness, with an overall correlation coefficient of .779, which is significant at 0.05. Specifically, all the indicators of management skills and school effectiveness correlated with one another were found to have a significant relationship at 0.05 level of significance. With *technical skills* having a correlation coefficient of .729, *human skills* with .699, *conceptual skills* with .704, *communication skills* also with .669 and *supervisory skills* with .668.

Table 5.2: Significance of the Relationship between Public Elementary Schools in Davao Region

Managerial Skills	**School Effectiveness**						
	School Climate	School Administration	Effectiveness of Teachers	Relationship with Local Community	Educational Practices	Students Sense of Belongingness	**Overall**
Technical Skills	.674** .000	.683** .000	.666** .000	.674** .000	.685** .000	.641** .000	**.729** .000**
Human Skills	.624** .000	.674** .000	.645** .000	.633** .000	.654** .000	.604** .000	**.699** .000**
Conceptual Skills	.631** .000	.678** .000	.648** .000	.627** .000	.661** .000	.618** .000	**.704** .000**
Communication Skills	.599** .000	.656** .000	.602** .000	.614** .000	.614** .000	.585** .000	**.669** .000**
Supervisory Skills	.583** .000	.664** .000	.609** .000	.584** .000	.617** .000	.593** .000	**.668** .000**
Overall	**.688** .000**	**.748** .000**	**.712** .000**	**.705** .000**	**.723** .000**	**.689** .000**	**.779** .000**

Their teachers are more likely to respect school heads who possess positive management skills, as do the students, resulting in a much more effective school. This can be seen when the school heads show strong leadership, communication, and strategic planning, making a lasting impact on one's school.

The implication coincides with the findings of Komalasari et al. that the management skills or competence of school heads lead to school effectiveness and a greater quality of education. The results indicate that having good management skills in terms of leadership and supporting the environment of

School staff and students impact the overall state of the school's system and environment, such as the idea of students towards their status within the campus and the effectiveness of teachers towards them. Moreover, the results shown are aligned with Bass' Transformational Leadership theory (1987 as cited by Reza, 2019), which states that when school heads adopt the style in which the head of a group inspires and motivates his workers, they can positively shape the effectiveness of the school.

School heads who possess positive management skills are more likely respected by their teachers, and so do the students, resulting in a much more effective school. This can be seen when the school heads show strong leadership, communication, and strategic planning, making a lasting impact on one's school.

The implication coincides with the findings of Komalasari et al. that the management skills or competence of school heads lead to school effectiveness and a greater quality of education. The results indicate that having good management skills in terms of leadership and supporting the environment of

School staff and students have an impact on the overall state of the school's system and environment, such as the idea of students towards their status within the campus and the effectiveness of teachers towards them. Moreover, the results shown are aligned with Bass' Transformational Leadership theory (1987 as cited by Reza, 2019), which states that when school heads adopt the style in which the head of a group inspires and motivates his workers, they can positively shape the effectiveness of the school.

Significance of the Relationship between Professional Competence and School Effectiveness

Table 7 shows the relationship between professional competence and the effectiveness of school heads. There is a significant relationship between professional competence and school effectiveness, with an overall correlation coefficient of .710 at a 0.05 significance level.

Specifically, all the indicators of professional competence when correlated with school effectiveness were found to be significant at 0.05 level of significance with i*nstructional supervision* having an overall correlation coefficient of .612, *professional development practice* with .665 and *management behavior* with .706. School heads leading with supervision increase the professionalism of their work environment and enhance the quality of the school environment. School heads are expected to continue their duties professionally.

Table 5.3: Significance of the Relationship between Professional Competence and School Effectiveness of Public Elementary Schools in Davao Region

Professional Competence	**School Effectiveness**						
	School Climate	School Administration	Effectiveness of Teachers	Relationship with Community	Educational Practices	Students Sense of Belongingness	**Overall**
Instructional Supervision	.557** .000	.612** .000	.543** .000	.561** .000	.564** .000	.531** .000	**.612** .000**
Professional Development Practice	.581** .000	.633** .000	.600** .000	.584** .000	.622** .000	.616** .000	**.665** .000**
Management Behaviour	.658** .000	.701** .000	.635** .000	.652** .000	.638** .000	.618** .000	**.706** .000**
Overall	**.643** .000**	**.696** .000**	**.636** .000**	**.643** .000**	**.653** .000**	**.632** .000**	**.710** .000**

The findings align with the Systems Theory of Bertalanffy (1968 as cited by Van Assche et al., 2019), emphasizing that professional competence affects school effectiveness through the interaction of managerial skills and teacher competencies.

Significance of the Influence of Organizational Climate, Management Skills, and Professional Competence on School Effectiveness of Public Elementary School in Davao Region

Presented in Table 8 is the significance of the influence of organizational climate, management skills, and professional competence on school effectiveness. The analysis shows that a standard coefficient of management skills generates the highest beta of .457. This implies that, compared to organizational climate with a beta of .391 and professional competence with -.024, management skill affects school effectiveness the most. Furthermore, the analysis shows an F-value of 235.070 with a corresponding p-value of 0.000, indicating that the regression model is significant. Thus, a variable exists that could determine the effectiveness of a school.

Table 6: Significance of the Influence of Organizational Climate, Management Skills, and Professional Competence on School Effectiveness of Public Elementary School in Davao Region

School Effectiveness					
(Variables)		*B*	B	*t*	*Sig.*
Constant		.556		4.732	.000
Organizational Climate		.388	.391	5.895	.000
Management Skills		.476	.457	5.994	.000
Professional Competence		-.023	-.024	-.358	.721
R	.800				
R^2	.640				
ΔR	.638				
F	235.070				
ρ	.000				

Moreover, an R of.800 signifies that 80 percent of the variation in school effectiveness is due to its predictor variables: organizational climate, management skills, and professional competence. This indicates that 20 percent of the variation came from factors aside from these three variables. With the different capacities of organizational climate, management skills, and professional competence to school effectiveness, they would need each other to influence school effectiveness significantly.

The study's findings correlate with the claims of Komalsari et al. that the key component in achieving an efficient and effective school is that school heads must attribute good management competence. Strategic planning, interpersonal skills, creativity, and problem-solving are the most essential management competencies a school head must have.

However, the views of Koundyannan et al. (2020) cited that the main contributor to school effectiveness is the organizational climate. A well-established school climate is essential in sustaining school effectiveness. On the other hand, Javornik and Mirazchiyski stated that achieving school effectiveness is limited to organizational climate and management skills, effective teaching practices, and professional competence.

Best Fit Model of School Effectiveness

This part examines the interrelationships among the variables in the study. Three models were generated to obtain the best-fit model for school effectiveness of public elementary schools. The models were assessed against the given fit indices and served as a basis to accept or reject the model.

Table 7: Summary of Goodness of Fit Measures of the Three Generated Models

Model	**P-value (>0.05)**	**CMIN / DF (0<value<2)**	**GFI (>0.95)**	**CFI (>0.95)**	**NFI (>0.95)**	**TLI (>0.95)**	**RMSEA (<0.05)**	**P-close (>0.05)**
1	.000	12.931	.726	.819	.808	.791	.173	.000
2	.000	6.756	.852	.914	.901	.899	.120	.000
3	.113	1.216	.973	.998	.988	.997	.023	.998

Legend: CMIN/DF – Chi Square/Degrees of Freedom NFI – Normed Fit Index
GFI – Goodness of Fit Index TLI – Tucker-Lewis Index
RMSEA – Root Mean Square of Error Approximation CFI – Comparative Fit Index

Table 8: Regression Weights of the 3 Generated Models

	Exogenous Variables to Endogenous Variable		
Model	**School Culture**	**Leadership Practices**	**Empowering Behaviour**
1	.655***	.170***	.112***
2	.687***	.054^{NS}	.188**
3	.639***	.289**	.015^{NS}

* p<.05, ** p<.01, *** p=.000

Generated Structural Model 1 presented the direct relationship between the endogenous and exogenous variables. As shown in Table 9.1, organizational climate is strongly represented by their factors with the highest beta value equal to .489 followed by management skills at .284 and professional competence at .070. Table 7 shows that the exogenous variables, organizational climate, management skills and professional competence do not indicate the school effectiveness of school heads having a P-value of <0.05. Also, the goodness of fit results revealed that the values were not within the range of the indices criteria as shown by CMIN/DF > 2, GFI, CFI, NFI, TLI < 0.95, and RMSEA < 0.05 with a P- Close < 0.05. This means that the model does not fit with the data.

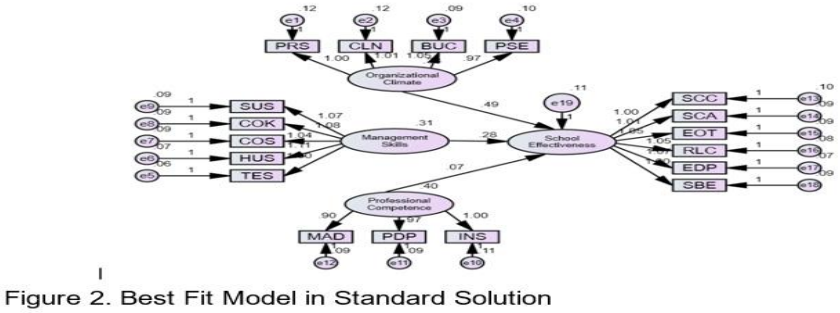

Figure 2. Best Fit Model in Standard Solution

Figure 2: Model 1 in Standard Solution

Legend:

PRS- Providing Structure	COS- Conceptual Skills	SCC- School Climate
CLN- Clarifying Norms	HUS- Human Skills	SCA- School Administration
BUC- Building Cohesiveness	TES- Technical Skills	EOT- Effectiveness of Teachers
PSE- Promoting Standard of Excellence	MAB- Management Behavior	RLC- The Relationship with Local Community
SUS- Supervisory Skills	PDP- Professional Development Practice	EDP- Educational Practices
COK- Conceptual Skills	INS- Instructional Supervision	SBE- Students'Sense of Belongingness to the Surrounding Environment

Generated structural Model 2 displayed the interrelationships of the exogenous variables' organizational climate, management skills, and professional competence along with its endogenous variable school effectiveness. As shown in table 9.1, professional competence is strongly represented by their factors, with the highest beta value of 14.378 organizational climate with 10.887, management skills with -24.437. Also, the

goodness of fit results revealed that the values were not on the range of indices criteria as shown by P-value < 0.05, CMIN/DF > 2, GFI, CFI, NFI, TLI < 0.95, and RMSEA > 0.05 with a P- Close < 0.05. This means that the model did not meet the necessary criteria.

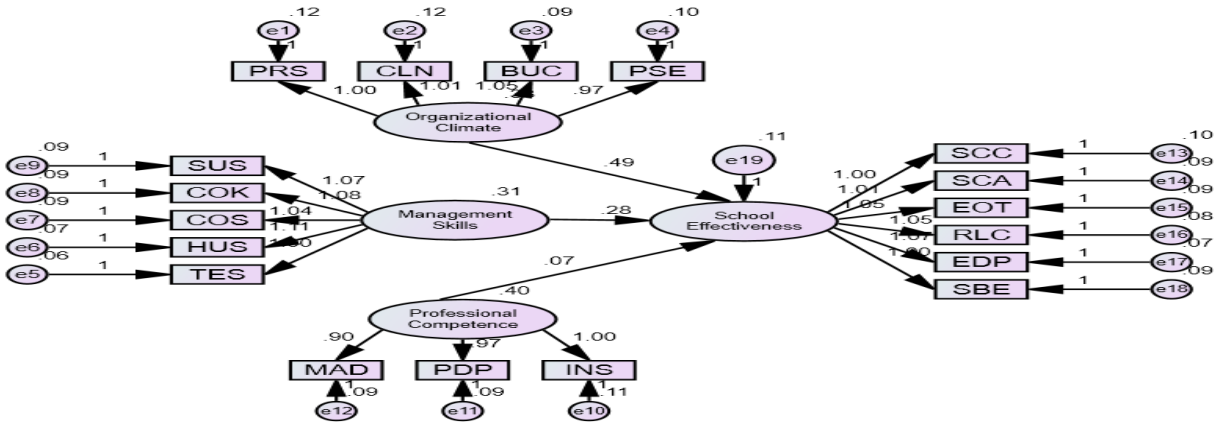

Figure 3: Model 2 in Standard Solution

Legend:

PRS- Providing Structure	COS- Conceptual Skills	SCC- School Climate
CLN- Clarifying Norms	HUS- Human Skills	SCA- School Administration
BUC- Building Cohesiveness	TES- Technical Skills	EOT- Effectiveness of Teachers
PSE- Promoting Standard of Excellence	MAB- Management Behavior	RLC- The Relationship with Local Community
SUS- Supervisory Skills	PDP- Professional Development Practice	EDP- Educational Practices
COK- Conceptual Skills	INS- Instructional Supervision	SBE- Students'Sense of Belongingness to the Surrounding Environment

Figure 2 is the Best Fit Model, representing the direct relationship of the exogenous variable, namely organizational climate management skills and professional competence, towards its endogenous variable, school effectiveness.

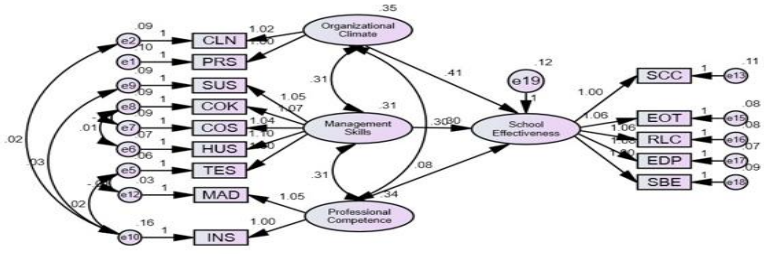

Figure 4. Best Fit Model in Standard Solution

Legend

ORGANIZATIONAL CLIMATE

PRS	providing structure
CLN	clarifying norms
BUC	building cohesiveness
PSE	promoting standard of excellence

PROFESSIONAL SKILLS

MAD	management behavior
PDP	professional development practice
INS	instructional supervision

MANAGEMENT SKILLS

SUS	supervisory skills
COK	communication skills
COS	conceptual skills
HUS	human skills
EDP	educational practices
TES	technical skills

SCHOOL EFFECTIVENESS

SCC	school climate
SCA	school administration
EOT	effectiveness of teachers
RLC	relationship with the local community
SBE	student's sense of belonging to the surrounding environment

Figure 4: Best Fit Model in Standard Solution

As presented in Table 9, the standard criteria of the following goodness fit indices will be used in identifying the Best Fit Model: Chi-square/Degrees of Freedom (CMIN/DF), Root Mean Square of Error Approximation (RMSEA), Normed Fit Index (NFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and Goodness of Fit Index (GFI). As reflected in the table, Model 3 passed the accepted values having a P- value of 0.113, with CMIN/DF = 1.216, RMSEA 0.023, TLI = 0.997, NFI = 0.988, CFI = 0.988, and GFI = 0.973. This indicates that Model 3 is the Best Fit Model for identifying school effectiveness.

Table 9.2 shows the correlation between the exogenous variables influencing the effectiveness of school heads. Among the correlations presented in Model 3, p-values were obtained equal to 0.000. This indicates a strong correlation between the exogenous variables affecting the effectiveness of school heads.

Table 9.2. Covariances: (Group number 1 – Best Fit Model)

Variables			Estimates	S.E.	P-value
Organizational Climate	<-->	Management Skills	.308	.025	***
Management Skills	<-->	Professional Competence	.314	.027	***
Organizational Climate	<-->	Professional Competence	.302	.027	***

The implications of these findings are substantial for educational administration, indicating that improvements in organizational climate and the enhancement of management skills and professional competence are likely to lead to more effective school leadership. This model serves as a foundational tool for policymakers and educators aiming to enhance school effectiveness through targeted interventions in leadership development. Future studies should consider these relationships in diverse educational settings to validate and potentially generalize these findings.

This study examines the direct effects of leadership competencies and organizational climate on school effectiveness. Silva and colleagues use structural equation modeling to analyze the data from various schools and confirm the significant influence of leadership qualities and organizational environments on the overall effectiveness of educational institutions (Silva, et al. 2019). Their findings provide robust support for similar models discussed in the context of educational management and leadership effectiveness, aligning with the findings in your study regarding Model 3.

CONCLUSION AND RECOMMENDATION

As perceived by schoolteachers under the supervision of school heads, in accordance with implications revealed by the study, the level of organizational climate is high where providing structure, clarifying norms, building cohesiveness and promoting standard of excellence obtained high ratings. Moreover, the level of management skills is high where technical skills, human skills, conceptual skills, communication skills and supervisory skills obtained high ratings. The level of professional competence is high with its indicators such as instructional supervision, professional development practice and management behaviour obtained high rating as per the best fit model which is model 3.

Furthermore, the level of school effectiveness given by school heads is high. It is also evident in indicators such as school climate, school administration, the effectiveness of teachers, the relationship with the local community, educational practices, and students' sense of belonging to the surrounding environment. The researcher proposes recommendations for school heads to continue strengthening the organizational climate they bring forth, as well as their management skills, professional competence, and school effectiveness, by reflecting on the policies anchored towards these variables, which may further result in an improved outcome for the school environment.

The correlation test showed a significant relationship between organizational climate, management skills, and professional competence of school heads. Further, the three (3) variables previously mentioned, organizational climate, management skills, and professional competence, are identified to be significant indicators of school heads' school effectiveness. These results are further supported by the theories the study is anchored to the Systems Theory, Transformational Leadership Theory Her, Herzberg's Two-Factor Theory, and the Social Exchange Theory. The previously mentioned theories highlight the positive impact of interactions between school aspects such as leadership, organizational climate and teacher competencies, leadership, and working conditions, along with the relationship between school heads and teachers, towards school effectiveness of school heads, which are then reflected on the results collected.

In identifying the best-fit model, using the structural equation model increased the reliability and thoroughness of this study, as it underwent an analysis using the model specification, model estimation, and model evaluation. Among the three (3) generated models, Model 3 best fits the school effectiveness of school heads. The effectiveness of school heads can be correlated with varying factors. Based on the data results, consistent descriptive levels of the independent variables in line with the study's objectives were recorded as high. Both are for each indicator of the school heads' organizational climate, management skills, professional competence, and overall average results.

To maintain school effectiveness brought up by school heads within Region XI, based on the findings, each indicator of the organizational level of school heads, management skills, and professional competence exhibited a high score. However, paying attention to some of the least high values for each variable is recommended. With the indicator clarifying norms under organizational climate showing the least high value, it implies that clarifying norms or boundaries within the classroom setting calls for greater attention.

The indicator supervisory skills under management skills showing the least high value indicate that supervisory skills within the classroom also call for greater attention. This was followed by instructional supervision under professional competence, suggesting that although it is significantly high, it requires attention because, compared to most mean levels, it was found to have the least high mean level.

In addition, the results of the current study could lead a path for school heads to evaluate and put into practice the importance of the identified variables such as the organizational climate they provide, managerial skills and professional competence. As reflected in the results, the said variables significantly impact their effectiveness. Furthermore, the significance of the study can contribute to one of the improvements of one of the 17 sustainable development goals: goal 4, quality education, by providing greater enhancement on the quality of education within schools through an increased level of organizational climate, managerial skills and professional competence of school heads, effectively.

The recommended enhancement and importance of the variables can also be noted in developing programs for school heads to maintain them and, ultimately, for school heads to have consistent and significant school effectiveness. Furthermore, careful monitoring and regular evaluation of school heads' effectiveness is suggested to observe any weaknesses and easily find ways to address any possible challenges within the school environment. Finally, more research should be carried out with other teacher populations, specifically public schools, to corroborate this study. They may also employ other variables or factors that influence school effectiveness aside from the variables in the study.

REFERENCES

1. Abdurahman, N. A., & Omar, J. A. K. (2021). School heads' educational leadership practice and teachers' performance: The case of Omar District, Division of Sulu, Philippines. Open Access Indonesia Journal of Social Sciences, 4(4), 432-44
2. Abd Rabo, A., & Hashaikeh, S. (2020). Assessing School Principals' Perceptions of School Effectiveness in the Palestinian Schools. Universal Journal of Educational Research, 8(11), 5536-5546.
3. Amenumey, E. B., & Badu, Y. A. (2023). Leaders' Experiences of Integrated Leadership Development in Higher Education: Kolb's Experiential Learning Theory and the 70: 20: 10 Model. International Journal of African Higher Education, 10(2), 113-137.

4. Arcaro, J. (2024). Quality in education: An implementation handbook. Taylor & Francis.
5. American Public Human Services Association. (2012). Organizational effectiveness. Available at http://www.pacwrc.pitt.edu/Curriculum/700_FndtnsOfLdshp/prework/OEQuick Guide.pdf.
6. Aquino, C. J. C., Afalla, B. T., & Fabelico, F. L. (2021). Managing educational institutions: School heads' leadership practices and teachers' performance. International Journal of Evaluation and Research in Education (IJERE), 10(4), 1325. https://doi.org/10.11591/ijere.v10i4.21518
7. Aydın, D. G., & Karabay, Ş. O. (2020). Improvement of classroom management skills of teachers leads to creating positive classroom climate. International Journal of Educational Research Review, 5(1), 10-25.
8. Bantolo[1], K. H. J. (2021). School Heads' Competencies and School Performance. International Journal of Multidisciplinary Research and Explorer, 1(8), 17-29.
9. Baggay, C. T., Bautista, B. J. D., Celestino, C. F., Corral, E. G., Francisco, K. A. B., Frias, A. S., ... & Seciban, D. A. (2021). School Heads' Instructional Supervisions and Its Impact on Teachers' Job Satisfaction. Online Submission, 6(3), 1-16.
10. Balfanz, R., Jerabek, A., Payne, K., & Scala, J. (2024, October 26). Strengthening school connectedness to increase student success - Ed Research for Action. Ed Research for Action. https://edresearchforaction.org/research-briefs/strengthening-school-connectedness-to-increase-student-success/Beauchamp, M. R., Crawford, K. L., & Jackson, B. (2019). Social cognitive theory and physical activity: Mechanisms of behavior change, critique, and legacy. Psychology of Sport and Exercise, 42, 110-117.
11. Behlol, M. G., & Akbar, R. A. (2019). Investigating Secondary School Effectiveness: Peer-Teacher Relationship and Pedagogical Practices. Bulletin of Education and Research, 41(1), 43-55.
12. Bellibaş, M. Ş., Gümüş, S., & Liu, Y. (2021). Does school leadership matter for teachers' classroom practice? The influence of instructional leadership and distributed leadership on instructional quality. School effectiveness and school improvement, 32(3), 387-412.
13. Bredeson, P. V. & Johansson, O. (2000). The school principal's role in teacher professional development. Journal of In-Service Education, 26:2, 385-401, DOI: 10.1080/13674580000200114
14. Brymer, E., & Gray, T. (2006). Effective leadership: Transformational or transactional? Australian Journal of Outdoor Education, 10(2), 13-19.
15. Cabigao, J. (2019). Professional Competencies of School Heads and Their Impact on School Outcome, Organizational Culture, and Principals' Performance. La Consolacion University Philippines.
16. Chuadhry, M. A. & Shah, S. M. H. (2012). Impact of Managerial Skills Learnt through MA Educational Planning Management Programme of AIOU on the Performance of Institutional Heads. Turkish Online Journal of Distace Education, v13 n2 p370- 381
17. Daniel K. Korir, D. K. & Kipkemboi, F. (2014). The Impact of School Environment and Peer Influences on Students' Academic Performance in Vihiga County, Kenya. Journal of Education and Practice, 5 (11), 1 - 12.
18. Day, C., Sammons, P., & Gorgen, K. (2020). Successful School Leadership. Education development trust. https://files.eric.ed.gov/fulltext/ED614324.pdf
19. Edmonds, R. (2020). Characteristics of effective Schools *. In Routledge eBooks (pp. 93–104). https://doi.org/10.4324/9781315060187-4
20. Educational Data Mining: Identification of factors associated with school effectiveness in PISA assessment https://doiorg.remotelibrary.addu.edu.ph/10.1016/j.stueduc.2020.100875
21. Fan, L., Mahmood, M., & Uddin, M. A. (2019). Supportive Chinese supervisor, innovative international students: A social exchange theory perspective. Asia Pacific Education Review, 20, 101-115.
22. Gamage, D. T. (2006a). Professional development for leaders and managers of self-governing schools. Dordrecht, the Netherlands: Springer
23. Giami, C. & Obiechina, F. (2019). Principals' managerial skills and teachers' job performance in public secondary schools in Rivers State, Nigeria. International Journal of Innovative Psychology & Social Development, 7(2), 97-104.
24. Gordon, S. P., & Espinoza, S. (2020). Instructional supervision for culturally responsive teaching. Educational Considerations, 45(3). https://doi.org/10.4148/0146-9282.2208

25. Grissom, J. A., & Condon, L. (2021). Leading schools and districts in times of crisis. Educational Researcher, 50(5), 315-324.
26. Guhao Jr, E. S. (2019). Organizational commitment of public-school teachers: A structural equation modeling analysis. MOJEM: Malaysian Online Journal of Educational Management, 7(1), 57-91.
27. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021).An introduction to structural equation modeling. In Classroom companion: business (pp. 1–29)https://doi.org/10.1007/978- 030-80519-7
28. Hartati, S., Pepriyeni, P., & Suryana, A. (2019, March). Managerial skills of principal in private secondary school categorized islamic characteristic. In 2nd International Conference on Research of Educational Administration and Management (ICREAM 2018) (pp. 139-144). Atlantis Press.
29. Hersey, P., & Blanchard, K. H. (1969). Management of organizational behavior: Utilizing human resources. Englewood Cliffs, NJ: Prentice-Hall.
30. Hesbol, K. A. (n.d.). Principal Self-Efficacy and Learning Organizations: Influencing school improvement. Digital Commons @ DU. https://digitalcommons.du.edu/elps_fac/3/
31. Himawan, M. S. P. K. K. (2019). The development of Indonesian teacher competence questionnaire. Journal of Educational, Health and Community Psychology, 5(2), 1-15.
32. Ibay, S. B., & Pa-alisbo, M. A. C. (2020). An assessment of the managerial skills and professional development needs of private catholic secondary school administrators in Bangkok, Thailand. World Journal of Education, 10(1), 149-163.
33. Ibrahim, A. U., & Daniel, C. O. (2019). Impact of leadership on organisational performance. International Journal of Business Management and Social Research, 6(2), 367–374. https://doi.org/10.18801/ijbmsr.060219.39
34. Imhangbe, O. S., Okecha, R. E., & Obozuwa, J. (2019). Principals' leadership styles and teachers' job performance: Evidence from Edo State, Nigeria. Educational Management Administration & Leadership, 47(6), 909-924.
35. Itpartners. (2024, August 16). Key Management Skills for Educators | Tulane University. Tulane University Online Master of Education - School of Professional Advancement. https://masterofed-sopa.tulane.edu/articles/educator-skills/
36. Israel, K. (2023). Effects of The Attributes of School Management Teams on The Management of Quality Education: Towards School Effectiveness. E-BANGI Journal, 20(2), 198–211. https://doiorg.remotelibrary.addu.edu.ph/10.17576/ebangi.2023.2002.18
37. Javornik, Š., & Mirazchiyski, E. K. (2023). Factors Contributing to School Effectiveness: A Systematic Literature review European Journal of Investigation in Health Psychology and Education, 13(10), 2095–2111 https://doi.org/10.3390/ejihpe13100148
38. Jens, R., & Schlotz, W. (2009). Transformational and transactional leadership and followers' chronic stress. Leadership Review, 9, 35-48.
39. Khusni, W., & Mahmudah, F. N. (2020). THE PRINCIPAL'S MANAGERIAL ABILITY IN DEVELOPING EFFECTIVE SCHOOLS. International Journal of Educational Management and Innovation, 1(2), 99. https://doi.org/10.12928/ijemi.v1i2.1611
40. Kline, R. B. (2021). Response to Leslie Hayduk's Review of Principles and Practice of Structural Equation Modeling, 4th edition. Canadian Studies in Population, 45(3–4), 188. https://doi.org/10.25336/csp29418
41. Komalasari, K., Arafat, Y., & Mulyadi, M. (2020). Principal's management competencies in improving the quality of education Journal of social work and Science Education, 1(2), 181-193.
42. Koundyannan, T., Kadir, S. A., Basri, R., & Ayub, A. F. M. (2020). Predictors of School Effectiveness: School Culture and Climate of Sekolah Kebangsaan Malaysia. International Journal of Academic Research in Business and Social Sciences (11). https://doi.org/10.6007/ijarbss/v10-i11/8148
43. Kuenzi, M., Mayer, D. M., & Greenbaum, R. L. (2020). Creating an ethical organizational environment: The relationship between ethical leadership, ethical organizational climate, and unethical behavior. Personnel Psychology, 73(1), 43-71.
44. Kruse, S. D., Hackmann, D. G., & Lindle, J. C. (2020, December). Academic leadership during a pandemic: Department heads leading with a focus on equity. In Frontiers in Education (Vol. 5, p. 614641). Frontiers Media SA.

45. Lema, P. R., & Mwila, P. M. (2022). Community involvement in school activities: Its effectiveness in promoting quality of learning in public secondary schools in Hai district, Kilimanjaro, Tanzania. International Journal of Research and Innovation in Social Science, 06(09), 613–620. https://doi.org/10.47772/ijriss.2022.6928
46. Lekhetho, M. (2021). Exploring factors influencing the performance of high-achieving secondary schools in Lesotho. Issues in Educational research, 31(3), 871-890.
47. Lester, L., Cefai, C., Cavioni, V., Barnes, A., & Cross, D. (2020). A whole-school approach to promoting staff wellbeing. Australian Journal of Teacher Education (Online), 45(2), 1-22.
48. Mahmud, H., & Sanusi, S. (2021). Training, managerial skills, and principal performance at senior high school in north luwu regency. Al-Tanzim: Diurnal Manajemen Pendidikan Islam, 5(2), 27-39.
49. Mailool, J., Kartowagiran, B., Retnowati, T. H., Wening, S., & Putranta, H. (2020). The Effects of Principal's Decision-Making, Organizational Commitment and School Climate on Teacher Performance in Vocational High School Based on Teacher Perceptions. European Journal of Educational Research, 9(4), 1675-1687.
50. Manla, V. H. (2021). School climate: Its impact on teachers' commitment and school performance. Journal of World Englishes and Educational Practices, 3(2), 21-35.
51. Marciniak, A. (2023). Global Theories of Archaeology. In Elsevier eBooks (pp. 10–19). https://doi.org/10.1016/b978-0-323- 90799-6.00199-3
52. Miah, M. T., & Hasan, M. J. (2022). Impact of Herzberg two-factor theory on teachers' job satisfaction: An implication to the private Universities of Bangladesh. International Journal of Business and Management Research, 10(1), 1-5.
53. Mukarromah, I., Mudjito, M., & Purbaningrum, E. (2019). The Effect of managerial skills (conceptual, human, and technical) of headmasters to the effectiveness of islamic senior high schools in jombang district. International Journal for Educational and Vocational Studies, 1(6), 539-544.
54. Nabella, S. D., Rivaldo, Y., Kurniawan, R., Nurmayunita, N., Sari, D. P., Luran, M. F., & Sova, M. (2022). The Influence of Leadership and Organizational Culture Mediated by Organizational Climate on Governance at Senior High School in Batam City. Journal of Educational and Social Research, 12(5), 119-130.
55. Nairz-Wirth, E., & Feldmann, K. (2019). Teacher professionalism in a double field structure. British Journal of Sociology of Education, 40(6), 795-808.
56. Nakku, V. B., Agbola, F. W., Miles, M. P., & Mahmood, A. (2020). The interrelationship between SME government support programs, entrepreneurial orientation, and performance: A developing economy perspective. Journal of Small Business Management, 58(1), 2-31.
57. Othman, N., Bilal, W. M. D. W. M., Ismail, M. S. I., & Lamin, R. A. C. (2023, July). Diploma in Pharmacy Students' Preference and Perception of Online Laboratory Practical Throughout the COVID-19 Pandemic in Malaysia. In 4th International Conference on the Future of Asean 2022 (ICoFA 2023) (pp. 259- 268). Atlantis Press.
58. Özgenel, M. (2020). An organizational factor predicting school effectiveness: school climate. International Journal of Psychology and Educational Studies, 7(1), 38–50. https://doi.org/10.17220/ijpes.2020.01.004
59. Rahmi, A., Bafadal, I., Imron, A., & Utaya, S. (2019). The transformational leadership of school principals, organisational climate and the professional attitudes of teachers. Int. J. Innova. Creta. Change Wwwijiccnet, 5, 30-46.
60. Ramadhani, D. P. (2021). Analysis penerapan asesmen formative dalam pembelajaran IPA dan Fisika: literature review. LENSA (Lentera Sains): journal Pendidikan IPA, 11(2), 110-120.
61. Ramberg, J., Låftman, S. B., Almquist, Y. B., & Modin, B. (2019). School effectiveness and students' perceptions of teacher caring: A multilevel study. Improving Schools, 22(1), 55-71.
62. Ranatunga, R. V. S. P. K., Priyanath, H. M. S., & Megama, R. G. N. (2021). Role of mobile technology on business opportunism and performance of SMEs in Sri Lanka. Sri Lanka Journal of Social Sciences and Humanities, 1(1), 53-61.
63. Reassessing school effectiveness: Multi-objective value-added measures (MOVAM) of academic and socioemotional learning

64. Rester A (2020). Impact of Transformational Leadership Behaviors of Administrators as Predictors of High Performing and Low Performing Schools in Mississippi. A Dissertation. The University of Southern Mississippi .1830.
65. Reza, M. H. (2019). Components of transformational leadership behavior. EPRA International Journal of Multidisciplinary Research, 5(3), 119-124.
66. Salmons, J. (2023, February 3). Quantitative Research with Nonexperimental Designs — Sage Research Methods Community. Sage Research Methods Community. https://researchmethodscommunity.sagepub.com/blog/quantitative-with-non-experimental-designs
67. School effectiveness and students' future orientation: A multilevel analysis of upper secondary schools in Stockholm, Sweden https://doiorg.remotelibrary.addu.edu.ph/10.1016/j.adolescence.2018.11.007
68. Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. Contemporary educational psychology, 60, 101832.
69. Shua, K. (2023). The relationship between school ethical climate and school effectiveness in Israel 2020. Academicus, 27, 67–91. https://doi-org.remotelibrary.addu.edu.ph/10.7336/academicus.2023.27.05
70. Silva, M. H. (2021). The relationship between managerial skills and teaching effectiveness of elementary school teachers. This journal contains open- access articles published under the Creative Commons Attribution (CC BY 4.0) license, which grants anyone to reproduce, redistribute and transform, commercially or non-commercially, with proper attribution. Read full license details here.
71. Steyn GM (2019). Proposing a Leadership Model to Improve Underachieving Schools' Performance in Deprived Communities:
72. A Case Study in South Africa. In Predictive Models for School Leadership and Practices. IGI Global Sulaiman, J., & Ismail, S. N. (2020). Teacher competence and 21st century skills in transformation schools 2025 (TS25).
73. Universal Journal of Educational Research, 8(8), 3536-3544.Tamhane, B. V., & Ganesan, A. (2019). Essential Managerial Skills for Library and Information Science Professionals.
74. Knowledge Librarian: An International Peer Reviewed Bilingual E-Journal of Library and Information Science, 6(2), 9-14.
75. Tantawy, N. (2020). Investigating teachers' perceptions of the influence of professional development on teachers' performance and career progression. Arab World English Journal, 11(1), 181–194. https://doi.org/10.24093/awej/vol11no1.15
76. Tapia-Fonllem, C., Fraijo-Sing, B., Corral-Verdugo, V., Garza-Terán, G., & Moreno- Barahona, M. (2020). School environments and elementary school children's well-being in northwestern Mexico. Frontiers in psychology, 11, 510.
77. Thomas, E. F., Zubielevitch, E., Sibley, C. G., & Osborne, D. (2020). Testing the social identity model of collective action longitudinally and across structurally disadvantaged and advantaged groups. Personality and Social Psychology Bulletin, 46(6), 823-838.
78. Van Assche, K., Verschraegen, G., Valentinov, V., & Gruezmacher, M. (2019). The social, the ecological, and the adaptive. Von Bertalanffy's general systems theory and the adaptive governance of social-ecological systems. Systems Research and Behavioral Science, 36(3), 308-321.
79. Villanueva, A. G., & Meer, T. Q. (2021). Predictors affecting the level of work satisfaction in relation to the job performance among secondary school teachers in the Division of Zambales during SY 2020-2021. International Journal of Multidisciplinary: Applied Business and Education Research, 2(11), 998-1007.
80. Volansky, A. (2023). Self-Management and School Autonomy. In The Three Waves of Reform in the World of Education 1918– 2018: Students of Yesterday, Students of Tomorrow (pp. 335-359). Singapore: Springer Nature Singapore.
81. Yıldız, İ. G. (2021). The Role of Organizational Learning in Conflict Management Business Management and Strategy, 12(2), 50-65.