



DIGITAL FLUENCY, SCHOOL INNOVATION, AND EMOTIONAL INTELLIGENCE ON LEADERSHIP PRACTICES OF EDUCATIONAL MANAGERS

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Abstract : This study aimed to investigate the leadership practices of educational managers in Region X, Mindanao, during the 2024-2025 school year. A descriptive-correlational research design was employed, utilizing adapted research instruments that underwent content validation, pilot testing, and reliability testing. A simple random sampling technique was used to select 550 school managers, including principals, head teachers, and school-in-charges, as respondents. The study used descriptive statistics to examine the levels of digital fluency, which encompassed aspects such as Digital-Age Learning Culture, Excellence in Professional Practice, Systemic Improvement Practices, Digital Citizenship, Digital Administrative Technology, and Communication Practices. It also explored school innovations focused on developing school environments, solving innovative problems, and encouraging creative ideas. Additionally, emotional intelligence was assessed, covering self-awareness, emotional reasoning, and emotional management. Leadership practices, including change management, mentorship, and community engagement, were also investigated. Pearson's correlation analysis was used to determine significant relationships between digital fluency, school innovations, and emotional intelligence in relation to leadership practices. Linear regression analysis identified variables that predict leadership practices, while further statistical analysis explored how these factors collectively influence leadership effectiveness. The findings revealed that educational managers demonstrated high levels of digital fluency, school innovation, and emotional intelligence, along with well-practiced leadership skills. Strong correlations were found between emotional intelligence and leadership practices, with emotional management and self-awareness emerging as key predictors. School innovation and digital fluency also played significant roles, though with varied effects. The collective impact of these factors explained a substantial portion of the variance in leadership practices.

Index Terms - Digital Fluency, School Innovation, Emotional Intelligence, Leadership Practices, Educational Management

I. INTRODUCTION

INTRODUCTION

Educational managers are essential to the educational system, playing a key role in enhancing school achievement and effectively managing the school community in today's educational system. Educational Managers' leadership practices encompass the essential skills and traits needed to effectively guide their school communities. However, these managers face significant challenges that can hinder their effectiveness, including limited professional development opportunities. A notable 60% of educational managers feel inadequately trained to meet the evolving demands of education (National Association of Secondary School Principals, 2020). Additionally, high stress and burnout levels can impact leadership practices.

Stakeholder engagement is another critical issue, with 70% of school administrators reporting insufficient involvement from teachers, parents, and the community, which impairs school improvement efforts (National School Boards Association, 2019). Resistance to change and communication barriers further complicate the leadership landscape, as 55% of educational managers encounter notable opposition when implementing new initiatives (Educational Leadership Review, 2022) and over 65% identified communication issues as a barrier to effective leadership (Institute for Educational Leadership, 2020). Resource constraints also pose a significant challenge, with 73% of school leaders indicating that budget cuts which negatively affect their ability to lead effectively (Center for American Progress, 2021).

In the Philippines, these challenges are intensified. A study revealed that approximately 30% of teachers leave the profession within their first five years due to inadequate support from school heads (Philippine Institute for Development Studies, 2020). Furthermore, over 60% of school managers' report needing additional training in leadership practices (Department of Education, 2021), highlighting a critical gap in professional development. Research shows that schools with effective leadership practices can see a 25% improvement in student performance (Asia Foundation, 2019). High teacher turnover rates, ineffective communication, and cultural diversity add to the complexities faced by educational managers in the Philippines.

There are some important variables that could help improve the leadership practices of educational managers when taking a responsibility towards the school. The following factors are digital fluency, school innovation and emotional intelligence. The integration of educational technology and digital fluency is essential, as over 70% of school heads feel unprepared to use online learning platforms effectively (Department of Education, 2023). Digital fluency skills are increasingly recognized as vital for informed decision-making and improving teachers outcomes, with studies indicating that schools led by data-savvy leaders experience significant gains in student achievement (OECD, 2019).

Moreover, school innovation is a key factor that can enhance the leadership practices of educational managers. Research has shown that schools that adopt innovative practices, such as project-based learning and technology integration, significantly increase teacher's ability to handle classes and manifest class engagement and improve academic performance of the school (Anderson & Dron, 2022). Innovative schools also foster collaboration among educators, enhancing professional development and enabling leaders to respond effectively to changing educational landscapes (Smith et al., 2023).

Emotional intelligence is also essential for boosting the leadership practices of educational managers. Leaders with high emotional intelligence are better equipped to make informed decisions and build strong relationships within their school communities, which fosters trust and collaboration (Goleman, 2006). Research indicates that emotionally intelligent leaders create supportive learning environments, which are crucial for school success. Emotional Intelligence is a very important attribute must be constantly observed and practice by educational managers to foster a progressive administration with less conflict, factions and internal disputes (Mayer et al., 2008).

Despite the recognized importance of leadership practices, a gap exists in the literature regarding the relationships between digital fluency, school innovation and emotional intelligence on the overall effectiveness of educational managers. This study aimed to investigate these relationships further.

NEED OF THE STUDY.

The findings of this study provide key points directly benefiting various stakeholders within the educational community. School managers gained a deeper understanding of how digital fluency, school innovations, and emotional intelligence can enhance their leadership practices. This knowledge empowered them to effectively utilize technology and data in decision-making processes, identify best practices for school innovation, and ultimately improve educational outcomes for the schools. Teachers benefited from the professional development programs informed by this study. These programs helped them align their teaching strategies with current technological advancements and innovative practices, leading to more engaging and effective teaching methods. Furthermore, future teachers will have access to literature that illustrates how capable school leadership can adeptly respond to curriculum changes influenced by technology.

Policymakers found the study's findings instrumental in developing supportive policies that promote effective school leadership practices. The research guided them in creating laws that empower school heads in alignment with the evolving educational landscape, allowing for the establishment of programs and resources that enhance leadership capabilities across schools. For school heads, the results shaped professional development initiatives that identify key factors for enhancing their leadership capabilities. By integrating technological advancements and promoting innovative curriculum practices, school leaders aligned with current educational trends and support ongoing improvement in their leadership practices.

Moreover, the findings encouraged legislative and executive bodies in the Philippines to implement programs and ordinances that support diverse and effective teaching approaches, particularly for students facing challenges in inclusive education. Improved school leadership also fostered better educational partnerships among external stakeholders, strengthening connections between schools and the community and enhancing support for educational initiatives. Finally, this study served future researchers by filling a gap in existing literature, paving the way for further exploration of the connections between digital fluency, school innovations, and emotional intelligence in school leadership. Researchers built on these findings to investigate new strategies and approaches for enhancing the educational leadership practices of educational managers, ultimately contributing to the preservation and advancement of the educational field.

RESEARCH METHODOLOGY

3.1 Population and Sample

The study focused on school heads in Region X for the 2024-2025 school year, including principals, head teachers, and school in-charges. These respondents were chosen using a stratified random sampling method from 7 school divisions, which together had 1251 school Managers. The sample size was set at 550, based on statistical guidelines for balancing reliability and feasibility. This method ensured that respondents were selected proportionally from each division to adequately represent all subgroups. For example, Bukidnon had about 262 participants, calculated based on its share of educational managers in Region X. After determining the sizes for each division, random selection methods, like simple random sampling, were used to ensure every educational manager had an equal chance of being chosen. This approach improved the accuracy of the representation and minimized bias.

Table 3.1: Number of Educational Managers in Region X

Division program	Total Number of Educational Managers	Sample size
Bukidnon	637	262
El Salvador	23	17
Cagayan de Oro City	95	45
Iligan City	116	53
Malaybalay City	77	38
Misamis Oriental	264	112
Valencia City	41	23
TOTAL	1251	550

Considering the methodological requirements of Structural Equation Modeling (SEM), which generally recommend sampling 20-40% of a population for reliable model estimation, a sample size of 550 respondents was established as appropriate for this study. This sample size represented approximately 23.3% of the total educational managers' population in region X, aligning with SEM guidelines to provide sufficient statistical power, while also addressing the feasibility of data collection (Hair et al., 2014).

The research placed the names of all 14 divisions in a bowl and randomly selected 7 to save money and time while ensuring equal selection opportunities. The chosen divisions were Bukidnon, Cagayan de Oro, Misamis Oriental, Iligan City, Valencia City, Malaybalay City, and El Salvador City. The exact respondents from these divisions were then selected using the fishbowl method. To achieve balanced representation, the study applied proportional allocation by determining each division's sample size based on its share of the total population. For instance, Bukidnon, having one of the highest educational managers' counts, was assigned a larger sample. Its proportional share was calculated by dividing its number of school heads by the total population of 2,148 and multiplying this ratio by the target sample size of 500. This method was repeated for each division. Once the sample sizes were established, respondents were randomly selected to ensure equal chances of inclusion. This approach reduced selection bias and enhanced the reliability of findings, particularly within the context of SEM analysis.

3.2 Data and Sources of Data

The study utilized carefully adapted research instruments to assess various competencies among educational managers, including digital fluency, school innovation, emotional intelligence, and leadership practices. Each instrument was based on established frameworks and employed a 5-point Likert scale for evaluation. Digital fluency was assessed using six variables, such as digital-age learning culture and technology integration for administrative use, adapted from Alajmi (2022). School innovation was measured through sub-variables like encouraging innovative ideas and solving problems innovatively, based on Shreah and Zidan (2017). Emotional intelligence was evaluated using Gignac's (2010) framework, encompassing seven dimensions such as emotional self-awareness and emotional management of others. Leadership practices were assessed using Pricellas et al.'s (2016) study, focusing on transformative leadership, mentorship, and change management skills.

To ensure ethical compliance and validity, the researcher obtained permission from the original authors of the instruments and conducted pilot testing outside the main research area. The data gathering process involved securing permissions from education authorities in Region X and ensuring voluntary participation from respondents. Questionnaires were distributed personally, with follow-ups conducted to ensure completion. Respondents rated each component according to their perceptions without revealing personal information. This systematic approach ensured the reliability of the instruments and facilitated meaningful insights into the competencies of educational managers.

3.3 Theoretical framework

The digital fluency of educational managers is underpinned by several key theories that guide their ability to integrate technology effectively within schools. Rogers' Diffusion of Innovations Theory (2003) explains how new ideas and technologies spread through social systems, emphasizing factors like relative advantage and compatibility to overcome resistance and facilitate adoption. The Technology Acceptance Model (TAM) by Davis (1989) highlights the importance of perceived ease of use and usefulness in technology acceptance, helping school leaders create supportive environments for integration. Piaget's Constructivist Learning Theory (1976) encourages experiential learning through technology, driving innovation in teaching practices, while Kotter's Change Management Theory (1996) offers structured steps to manage resistance and engage stakeholders during technological transitions. Additionally, Barnlund's Transactional Model of Communication (2008) emphasizes interactive communication to ensure clarity in data sharing, and Mezirow's Transformative Learning Theory (1991) stresses critical reflection for deeper understanding and responsive innovation.

Emotional intelligence (EI) theories also play a significant role in educational management. Salovey and Mayer's Ability-Based Model (1990) defines EI as the ability to perceive, understand, manage, and utilize emotions effectively, enhancing personal and social functioning. Goleman's Mixed Model (1995) expands this by integrating emotional abilities with personality traits and social skills, emphasizing components like self-awareness, empathy, and social skills as critical for success. The Emotional Competence Framework (Goleman, 1998) focuses on developing specific EI competencies such as emotional awareness and relationship management. Additionally, CASEL's Social-Emotional Learning Framework (1994) promotes integrating EI into curricula to foster self-awareness, social awareness, and responsible decision-making among students. By applying these theories through professional development, curriculum integration, and modeling EI practices, educational managers can create supportive environments that enhance both academic outcomes and the emotional climate of schools.

3.4 Statistical tools

The data were summarized, translated, and analyzed using the following statistical tools:

3.4.1 Descriptive Statistics

Descriptive statistics were employed to analyze the first four problem statements and responses of educational managers regarding their levels of digital fluency, school innovations, and emotional intelligence in leadership practices. This method involved calculating the mean values for each variable to summarize and describe the data effectively.

3.4.2 Correlation Analysis

To address the fifth problem statement, which focused on determining the correlation between independent and dependent variables, Pearson's Product Moment Correlation analysis was utilized.

3.4.3 Regression Analysis

Multiple regression analysis was applied to determine which variable(s) predicted the leadership capabilities of school heads, addressing the sixth problem statement. By analyzing the contributions of digital fluency, school innovations, and emotional intelligence, multiple regression provided a comprehensive understanding of how these factors interact to shape leadership practices in educational settings.

IV. RESULTS AND DISCUSSION

4.1 Results of the Digital Fluency of Educational Managers

Table 4.1: Overall Digital Fluency of Educational Managers

INDICATORS	Mean	Qualitative Interpretation
Digital-Age Learning Culture	4.59	Very highly Fluent
Excellence in Professional Practice	4.57	Very highly Fluent
Systemic Improvement Practices	4.53	Very highly Fluent
Digital Citizenship	4.55	Very highly Fluent
Digital Administrative Technology	4.51	Very highly Fluent
Communication Practices	4.53	Very highly Fluent
OVERALL MEAN	4.56	Very highly Fluent

LEGEND:

Range	Qualitative Interpretation
4.51-5.00	Very highly Fluent
3.51-4.50	Highly Fluent
2.51-3.50	Fluent
1.51-2.50	Moderately Fluent
1.00-1.50	Not Fluent

Table 4.1 displayed the findings, stating that the digital fluency of educational managers, as evaluated across various indicators such as digital-age learning culture, professional practices, systemic improvement, digital citizenship, administrative technology, and communication practices, reflects a high level of competence. The overall mean score of 4.56 indicates a strong agreement among educational managers regarding their digital fluency. Notably, "Digital-Age Learning Culture" and "Excellence in Professional Practice" received the highest scores of 4.59 and 4.57, respectively, underscoring a commitment to fostering innovative learning environments and maintaining high professional standards. However, the lower score of 4.51 for "Digital Administrative Technology" suggests an area for further development, particularly in integrating technology into administrative processes.

These results imply that educational managers are well-equipped to navigate the complexities of digital education and are committed to fostering continuous improvement and digital citizenship. Despite this, the lower score in digital administrative technology highlights a need for targeted professional development to enhance technological integration in administrative practices. Studies by Anderson and Dron (2011) and Mishra and Koehler (2006) emphasize the importance of effective digital leadership and integrating technology into professional practices. Research by Spector (2014) further supports the need for ongoing professional development to maintain high standards of practice and adapt to the evolving digital landscape in education.

The broader perspective on digital fluency extends beyond technical skills to include the ability to leverage technology for pedagogical improvement and organizational efficiency. Leadership, particularly transformational leadership, plays a significant role in fostering digital literacy and encouraging technology integration. Studies by Schmitz et al. (2023) and Guggemos and Seufert (2021) demonstrate how school leaders can influence teachers' beliefs and practices regarding digital tools. Additionally, research on digital leadership, such as by Cervera and Caena (2022), highlights the importance of integrating digital fluency into teacher preparation programs, while studies by Kamalov et al. (2023) and Lim (2020) show how school leaders' adoption of technology can improve administrative processes and teaching effectiveness. This reinforces the need for educational managers to continuously develop their digital competencies to support both teaching and administrative functions effectively.

4.2 Results of the School Innovations of Educational Managers

Table 4.2: Overall School Innovations of Educational Managers

INDICATORS	Mean	Qualitative Interpretation
Developing School Environment	4.60	Very Highly Innovative
Encouraging Innovative Ideas	4.58	Very Highly Innovative
Solving Innovative Problems	4.58	Very Highly Innovative
OVERALL MEAN	4.59	Very Highly Innovative

LEGEND:

Range	Qualitative Interpretation
4.51-5.00	Very Highly Innovative
3.51-4.50	Highly Innovative
2.51-3.50	Innovative
1.51-2.50	Moderately Innovative
1.00-1.50	Not Innovative

Table 4.2 revealed the findings which indicated that the overall school innovations of educational managers, as assessed through three key indicators—developing the school environment, encouraging innovative ideas, and solving innovative problems—reveal a high level of effectiveness. The overall mean score of 4.59 indicates strong agreement among educational managers about their ability to foster innovation, reflecting their high commitment to these practices. The highest mean score, 4.60, is found in "Developing School Environment," suggesting a particular strength in creating supportive and innovative educational atmospheres. Meanwhile, "Encouraging Innovative Ideas" and "Solving Innovative Problems" both received mean scores of 4.58, highlighting a consistent focus on promoting and resolving innovative challenges within schools.

These results imply that educational managers are successfully cultivating an innovative culture, which is crucial for improving educational outcomes and fostering teacher engagement. Their commitment to developing the school environment and addressing innovative problems demonstrates the importance of leadership in driving educational change. However, the slight variance in scores indicates that there is room for further growth. Educational managers may benefit from ongoing professional development and strategic planning to maintain and enhance their innovative efforts. This finding aligns with research by Leithwood et al. (2006) and Hargreaves and Fullan (2012), who stress the role of school leaders in creating environments that support innovation and encourage continuous improvement.

Studies also suggest that effective curriculum management strategies and strong leadership practices contribute significantly to educational innovation. Research by Bedaure and Bedaure (2023) and Albiladi et al. (2020) shows that principals who prioritize innovative curricula improve teaching quality and enhance their leadership effectiveness. Furthermore, Zieger (2016) and Thacker (2017) emphasize that principals who engage in continuous learning and foster collaboration among educators can better guide their staff through innovative changes. Collaborative approaches and community involvement, as highlighted by Demmanggasa (2023) and Kamalov et al. (2023), are also essential for the successful implementation of school innovations, underlining the importance of strategic leadership in driving educational progress.

4.3 Results of the Emotional Intelligence of Educational Managers

Table 4.3: Overall Emotional Intelligence of Educational Managers

INDICATORS	MEAN	QUALITATIVE INTERPRETATION
Emotional Self-Awareness	4.60	Very High Emotional Intelligence
Emotional Management of Others	4.57	Very High Emotional Intelligence
Emotional Awareness of Others	4.54	Very High Emotional Intelligence
Emotional Reasoning	4.54	Very High Emotional Intelligence
Emotional Management of Others	4.50	High Emotional Intelligence
Emotional Self-Management	4.48	High Emotional Intelligence
Emotional Expression	4.42	High Emotional Intelligence
OVERALL MEAN	4.52	Very High Emotional Intelligence

LEGEND:

Range	Qualitative Interpretation
4.51-5.00	Very High Emotional Intelligence
3.51-4.50	High Emotional Intelligence
2.51-3.50	Fair Emotional Intelligence
1.51-2.50	Low Emotional Intelligence
1.00-1.50	Poor Emotional Intelligence

The findings presented in Table 4.3 indicate that the overall emotional intelligence (EI) of educational managers reflects a very high level of emotional competence, with an overall mean score of 4.52. This score indicates strong agreement among

educational managers regarding their emotional intelligence abilities. The highest mean scores were recorded for "Emotional Self-Awareness" at 4.60 and "Emotional Management of Others" at 4.57, suggesting that managers are particularly skilled in recognizing their own emotions and managing the emotions of others. However, the slightly lower scores in "Emotional Expression" (4.42) and "Emotional Self-Management" (4.48) point to areas where further development might be beneficial.

These results imply that educational managers generally possess a strong foundation in emotional intelligence, especially in the areas of self-awareness and managing others' emotions. Despite this strength, the lower scores in emotional expression and self-management indicate that these areas could benefit from further attention. Enhancing these aspects of emotional intelligence could improve workplace dynamics, leadership effectiveness, and interpersonal relationships within schools. This aligns with the work of Mayer and Salovey (1997) and Goleman (1998), who emphasize the importance of emotional awareness and management in fostering productive environments.

Research supports the idea that emotional intelligence is crucial for effective school leadership and improving school culture. Leaders with high EI are better equipped to foster trust, collaboration, and continuous improvement among staff, which in turn supports student outcomes (Kwalipo, 2024; Zabin, 2022). Studies by Asmamaw and Semela (2023) and Turgott-Ricketts (2023) also show that EI enhances leadership effectiveness, including conflict resolution, decision-making, and creating a supportive school environment. Additionally, professional development programs focused on improving EI competencies, such as team building, stress management, and emotional expression, can further enhance the leadership capabilities of educational managers (Arshad et al., 2024; Pretorius & Plaatjes, 2022). By prioritizing emotional intelligence, school leaders can cultivate environments conducive to growth, success, and well-being for all stakeholders.

4.4 Results of the Educational Manager's Leadership Practices

Table 4.4: Overall Leadership Practices of Educational Managers

INDICATORS	MEAN	QUALITATIVE INTERPRETATION
Change Management Skills	4.63	Very Highly Practiced
Mentorship and Support for Staff	4.60	Very Highly Practiced
Transformative leadership	4.59	Very Highly Practiced
Conflict Resolution Skills	4.59	Very Highly Practiced
Community Engagement	4.59	Very Highly Practiced
OVERALL MEAN	4.52	Very High Emotional Intelligence

LEGEND:

Range	Qualitative Interpretation
4.51-5.00	Very Highly Practiced
3.51-4.50	Highly Practiced
2.51-3.50	Moderately Practiced
1.51-2.50	Least Practiced
1.00-1.50	Not Practiced

The findings depicted in table 4.4 reported that the overall mean score of 4.60 indicates that school administrators are highly practiced in their leadership skills. The highest mean score of 4.63 was recorded for "Change Management Skills," followed by "Mentorship and Support for Staff" at 4.60, reflecting a strong emphasis on adapting to changes and supporting educators. Meanwhile, "Transformative Leadership," "Conflict Resolution Skills," and "Community Engagement" all received a mean score of 4.59, indicating that these areas are also well-practiced but still have room for improvement.

These results suggest that school administrators are well-equipped to lead, particularly in change management and staff mentorship. However, there is room to further develop skills related to transformative leadership and community engagement to enhance the educational environment and foster greater collaboration. Strengthening these areas could improve administrators' overall effectiveness and positively impact school culture. These findings are supported by the work of Leithwood et al. (2004) and Fullan (2001), who emphasize the importance of effective mentorship, change management, and transformative leadership in promoting school success.

4.5 Results of Correlation on Leadership Practices and the Independent Variables

Table 4.5: Correlation Between the Dependent and Independent Variables

INDICATORS	CORRELATION COEFFICIENT	P-VALUE
Digital Fluency	.783	.000**
Digital-Age Learning Culture;	.699	.000**
Excellence in Professional Practice	.703	.000**
Systemic Improvement Practices	.683	.000**
Digital Citizenship	.723	.000**
Digital Administrative Technology	.701	.000**
Communication Practices	.683	.000**
School Innovation	.828	.000**
Encouraging Innovative Ideas	.784	.000**
Developing School Environment	.762	.000**

Solving Innovative Problems	.775	.000**
Emotional Intelligence	.882	.000**
Emotional Self-Awareness	.719	.000**
Emotional Expression	.642	.000**
Emotional Awareness of Others;	.804	.000**
Emotional Reasoning	.793	.000**
Emotional Self-Management	.731	.000**
Emotional Management of Others	.874	.000**
Emotional Self-Control	.770	.000**

** p<0.01, NS = Not Significant

Table 4.5 presents the correlation between leadership practices and the independent variables, specifically digital fluency, professional practices, emotional intelligence, and school innovation. The table includes correlation coefficients and p-values, indicating the strength and significance of these relationships. The highest correlation coefficient is found in "Emotional Intelligence" (0.882), while the lowest is observed in "Emotional Expression" (0.642), highlighting variations in the degree of association across variables.

The correlation between leadership practices and digital fluency is strong (0.783, $p = 0.000$), with significant associations found in areas such as "Digital-Age Learning Culture" (0.699), "Excellence in Professional Practice" (0.703), and "Digital Citizenship" (0.723). This suggests that enhancing digital fluency among educational managers can improve leadership effectiveness by fostering a more dynamic and efficient educational environment. Similarly, leadership practices also strongly correlate with school innovation (0.828, $p = 0.000$), with key areas like "Encouraging Innovative Ideas" (0.784) and "Developing School Environment" (0.762) showing substantial relationships. These findings highlight the critical role of fostering an innovative school culture to drive educational progress and improve outcomes.

The highest correlation with leadership practices was found in emotional intelligence (0.882, $p = 0.000$), with strong links to sub-variables such as "Emotional Awareness of Others" (0.804) and "Emotional Management of Others" (0.874). This underscores the importance of emotional intelligence in building trust, fostering collaboration, and creating a supportive learning environment. The study supports previous research by Goleman (1995) and Zhao (2012), emphasizing the interconnectedness of emotional intelligence, digital fluency, and school innovation in improving leadership effectiveness. These findings suggest that educational managers should focus on developing competencies in these areas to create responsive, inclusive, and progressive educational environments.

4.6 Results of Regression Analysis Among the Variables

Table 4.6: Regression Analysis Between the Independent and Dependent Variables

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.282	.079		3.547	.000
Emotional Intelligence					
Emotional Management of Others	.380	.029	.413	13.121	.000
Emotional Awareness of Others	.114	.029	.126	3.966	.000
Emotional Self Control	.106	.022	.131	4.832	.000
Self-Awareness	.054	.024	.060	2.283	.023
School Innovations					
Encouraging Innovative Ideas	.141	.032	.153	4.374	.000
Solving Innovative Problems	.082	.030	.088	2.728	.007
Developing School Environment	.079	.031	.084	2.503	.013
Digital Fluency					
Systemic Improvement Practices	-.084	.027	-.095	-3.149	.002
Digital Citizenship Practices	.074	.074	.084	2.745	.006
	R ² =.925	R ² =.855	F=354.728	Sig.= 0.000	

Table 4.6 presented the regression analysis between leadership practices of educational managers and three main predictor variables: emotional intelligence, innovation, and digital fluency. The table displays the unstandardized and standardized coefficients, t-values, and significance level of each predictor, providing insights into their influence on leadership practices.

Among the emotional intelligence sub-variables, the emotional management of others ($B = 0.380$, $p = 0.000$) had the highest influence on leadership practices, followed by emotional awareness of others ($B = 0.114$, $p = 0.000$), emotional self-control ($B = 0.106$, $p = 0.000$), and self-awareness ($B = 0.054$, $p = 0.023$). The significance of these predictors highlights that educational managers with strong emotional intelligence are more effective in guiding their teams and nurturing a collaborative school environment. These findings suggest that emotional intelligence plays a fundamental role in leadership effectiveness, as managers who manage emotions well tend to create positive workplace undercurrents, leading to improved school administration and teacher performance.

This result is supported by the study of Cansoy and Parlar (2018), which found that transformational leadership significantly impacts school climate, emphasizing the role of emotional intelligence in fostering motivation and engagement among

educators. Similarly, Aquino et al. (2021) noted that emotionally intelligent leaders inspire their teams, contributing to enhanced professional development and student outcomes.

Encouraging innovative ideas ($B = 0.141$, $p = 0.000$) emerged as the strongest predictor under innovations, followed by solving innovative problems ($B = 0.082$, $p = 0.007$) and developing the school environment ($B = 0.079$, $p = 0.013$). These findings indicate that leaders who actively promote innovation and problem-solving contribute to dynamic and progressive school environments.

The results imply that adopting innovation is serious in educational management, as it enables schools to adapt to changing educational demands, improve instructional practices, and create inclusive learning environments. This result is supported by the study of Kilag and Kauffman (2023), which emphasized the importance of instructional and distributed leadership in curriculum development, suggesting that innovative school heads enhance overall school effectiveness. Additionally, Carter and Sharpe (2023) found that school leaders who embrace curriculum innovation drive continuous improvement and strengthen leadership capabilities.

The regression analysis revealed that systemic improvement practices ($B = -0.084$, $p = 0.002$) had a negative relationship with leadership practices, while digital citizenship practices ($B = 0.074$, $p = 0.006$) had a positive impact. This suggests that while digital fluency contributes to leadership effectiveness, systemic improvement practices may require further refinement to align with effective leadership approaches. These findings suggest that while digital literacy is essential for modern leadership, the way digital tools are implemented and integrated into school management affects their effectiveness. Leaders must ensure that systemic improvements complement leadership strategies rather than creating additional challenges.

This result is supported by the study of Eickelmann (2021), which emphasized that school heads who promote technology integration in curricular design enhance their leadership capabilities. Moreover, Schleicher (2018) noted that accountability frameworks influence how digital tools are used in leadership, reinforcing the need for strategic digital fluency in educational management.

The regression model yielded an R value of 0.925, indicating a strong correlation between the predictor variables and leadership practices. The R-squared value of 0.855 signifies that 85.5% of the variance in leadership practices can be explained by emotional intelligence, innovation, and digital fluency. Additionally, the F-value of 354.728 and the p-value of 0.000 confirm the model's statistical significance. These results highlight the substantial impact of the predictor variables on leadership practices, reinforcing the need for educational managers to enhance emotional intelligence, embrace innovation, and integrate digital fluency to optimize their leadership effectiveness.

The regression equation formulated is:

$$Y_1 = .282 + .380 X_1 + .114 X_2 + .106 X_3 + .054 X_4 + .141 X_5 + .082 X_6 + .079 X_7 + -.084 X_8 + .074 X_9$$

Where:

Y_1 = Leadership Practices

X_1 = Emotional Management of Others

X_2 = Emotional Awareness of Others

X_3 = Emotional Self Control

X_4 = Self-Awareness

X_5 = Encouraging Innovative Ideas

X_6 = Solving Innovative Problems

X_7 = Developing School Environment

X_8 = Systemic Improvement Practices

X_9 = Digital Citizenship Practices

The regression equation indicates the relationship between various independent variables (X_1 to X_9) and the dependent variable, Leadership Practices (Y_1). Each coefficient represents the expected change in Leadership Practices for a one-unit increase in the corresponding independent variable while keeping the others constant. For instance, for every one-unit increase in Emotional Management of Others (X_1), Leadership Practices is expected to increase by 0.380 units. Similarly, Encouraging Innovative Ideas (X_5) contributes 0.141 units per unit increase, while Digital Citizenship Practices (X_9) contributes 0.074 units. Interestingly, Systemic Improvement Practices (X_8) has a negative coefficient (-0.084), suggesting that an increase in this factor is associated with a slight decline in Leadership Practices, assuming all other variables remain unchanged. The constant value 0.282 represents the baseline level of Leadership Practices when all independent variables are zero. Overall, this model suggests that emotional intelligence, school innovation, and digital citizenship positively influence leadership, whereas systemic improvement practices may require a different approach to enhance leadership effectiveness.

Hence, the null hypothesis, which states that none of the predictor variables significantly influence Leadership Practices, is rejected, as the regression analysis shows the several predictors, including Emotional Management of Others ($\beta = .413$, $p = .000$), Encouraging Innovative Ideas ($\beta = .153$, $p = .000$), and Emotional Self-Control ($\beta = .131$, $p = .000$), have significant effects, indicating that these variables meaningfully contribute to the prediction of Leadership Practices ($F = 354.728$, $p = 0.000$).

The collective impact of emotional intelligence, innovation, and digital fluency on leadership practices aligns with previous studies. Hurtado et al. (2024) emphasized that educational managers' mentoring and strategic teacher assignments improve educational quality, demonstrating the importance of emotional intelligence in leadership. Additionally, Carter et al. (2022) highlighted the role of school leaders in adapting to contemporary educational trends, supporting the influence of innovation. Furthermore, Eickelmann (2021) stressed that digital competency enhances leadership effectiveness, reinforcing the necessity of digital fluency in school management. Together, these findings underscore the multifaceted nature of effective leadership in education.

V. CONCLUSIONS AND RECOMMENDATIONS

The findings of this study emphasize the high level of digital fluency among educational managers, which plays a significant role in the overall effectiveness of school leadership. Educational managers exhibit a very high proficiency in using digital tools, especially in areas like Digital-Age Learning Culture, Excellence in Professional Practice, and Digital Citizenship.

These aspects of digital fluency are crucial in supporting modern educational practices, enabling managers to effectively implement technology-driven strategies for teaching and learning. As educational environments increasingly rely on technology, the ability to adapt and lead digitally is a key factor in shaping the future of education.

The results also demonstrate that educational managers exhibit a very high level of school innovation, particularly in developing school environments and encouraging innovative ideas. This innovation is a vital aspect of educational leadership, as it fosters a climate of creativity and adaptability. Educational managers who prioritize school innovation are better positioned to lead schools through challenges and ensure that their institutions remain responsive to the evolving educational landscape. Encouraging innovative problem-solving among staff promotes a culture of continuous improvement and prepares schools for future challenges. Emotional intelligence was found to be another critical factor in the effectiveness of educational leadership. With high levels of emotional intelligence, educational managers are better equipped to direct complex interpersonal relationships and manage the emotions of others, an essential skill in leadership roles. The study showed that emotional intelligence strongly correlates with leadership practices, especially in areas like emotional management of others and emotional reasoning. These emotional competencies enable leaders to maintain a positive school climate, improve teacher satisfaction, and raise a supportive and collaborative work environment.

Educational managers also exhibit strong leadership skills, particularly in change management and mentorship. The study's findings showed that educational managers possess very highly practiced leadership skills, which are essential for driving school-wide transformation and fostering a supportive culture. A balanced approach to leadership, including conflict resolution, transformative leadership, and community engagement, is crucial for creating an environment where teachers feel empowered and motivated to contribute to student learning outcomes. This type of leadership ensures that educational managers are well-equipped to guide their schools through periods of change while maintaining staff morale and performance.

The study also highlights the significant relationships between digital fluency, school innovation, and emotional intelligence with leadership practices. Statistical analyses indicate that emotional intelligence is the strongest predictor of leadership effectiveness, followed by school innovation and digital fluency. The strong correlations between these variables suggest that educational managers who excel in these areas are more likely to exhibit effective leadership practices. This underscores the importance of developing these competencies as part of leadership training and professional development for educational managers. Furthermore, the regression analysis showed that digital fluency, school innovation, and emotional intelligence collectively explain a significant portion of the variance in leadership practices. This suggests that these factors work together to shape leadership effectiveness. Emotional intelligence has a profound influence on leadership practices, indicating that educational leaders must cultivate self-awareness, emotional regulation, and empathy to be successful. School innovation also plays a critical role, with factors like encouraging innovative ideas contributing to leadership effectiveness. Digital fluency, though still important, appears to have a more marked impact, suggesting that while it is beneficial, it may require careful integration into leadership practices.

Based on the conclusions drawn from the study, the following recommendations are offered to educational managers, with an emphasis on enhancing leadership practices through a focus on digital fluency, school innovation, and emotional intelligence: For educational managers, it is highly recommended to prioritize professional development programs that foster growth in emotional intelligence, digital fluency, and innovation within the leadership team. Offering leadership training that integrates emotional self-awareness, conflict resolution, and innovative problem-solving skills can support administrators in creating more collaborative and effective school environments. Additionally, promoting the integration of technology into school management and teaching practices can enhance administrative efficiency and support the development of a Digital-Age Learning Culture. Encouraging administrators to seek out professional development opportunities and engage in continuous learning about the latest digital tools and educational innovations may also be beneficial.

For school leaders, cultivating an environment that encourages creativity and innovation is important for maintaining a forward-thinking school culture. Creating platforms for staff to propose and implement innovative ideas can help drive school-wide improvements and adapt to changing educational demands. Administrators may find it helpful to create spaces for open dialogue, where Educational Managers' innovative teaching strategies, technological tools, and student-centered practices can be discussed and tested. Fostering an innovation-driven environment, with appropriate support for risk-taking, may lead to transformative changes in the school's approach to teaching and learning.

Furthermore, Educational Managers could benefit from promoting and modeling strong emotional intelligence within their leadership practices. Offering workshops on emotional management and interpersonal communication may help develop educational Managers' capacity to handle complex emotional dynamics within their schools. Encouraging emotional awareness of others and the ability to manage both their own emotions and those of others will likely improve school climate, reduce conflicts, and enhance overall morale. Educational Managers who cultivate empathy and emotional regulation can create a more supportive environment that enables teachers and staff to perform at their best.

For improving leadership effectiveness, educational managers are encouraged to adopt a holistic approach to leadership development that incorporates the integration of digital tools, innovative practices, and emotional intelligence. Educational Managers may also consider developing tailored professional development programs for their teams, focusing on improving leadership competencies such as change management, mentorship, and transformative leadership. These leadership qualities can empower administrators to navigate the challenges of modern education while ensuring the continued success and engagement of their school community.

It is also advisable for educational managers to closely monitor and assess the relationships between digital fluency, school innovation, and emotional intelligence within their schools. Conducting regular evaluations of leadership practices, alongside seeking feedback from staff and students, can provide valuable insights into areas of strength and areas that may require further attention. Administrators could benefit from creating collaborative teams to implement initiatives that integrate these core competencies into daily school operations and leadership practices.

Finally, future researchers are encouraged to further explore the relationships between digital fluency, school innovation, emotional intelligence, and leadership practices, particularly across different educational contexts and cultural settings. Expanding research to include diverse educational environments and examining the impact of these competencies on various aspects of school

performance would offer valuable insights into their broader applicability. Longitudinal studies could also be beneficial in understanding how leadership practices evolve over time with the integration of digital tools and emotional intelligence.

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