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Collaborative Leadership Capacity, Data-Driven Decision-Making Capability, and Socio-Emotional Competence on Strategic Foresight of School Leaders

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Abstract: This study examined the relationship between collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence on the strategic foresight of school leaders in the Divisions of Valencia, Malaybalay, and Bukidnon. Utilizing a descriptive-correlational design, the study involved 268 school leaders during the second semester of the school year 2024-2025. Validated survey instruments with high reliability (Cronbach's alpha = 0.93-0.96) measured key leadership competencies. Descriptive statistics, Pearson correlation, and multiple regression analyses were used to analyze the data.

Findings revealed that school leaders demonstrated high levels of collaborative leadership, especially in developing people, assessing the environment, and building trust though visioning and mobilizing remain areas for further enhancement. Data-driven decision-making capability was strong, with data usage purpose and technological infrastructure emerging as strengths, although data usage culture remained an area for improvement. Socio-emotional competence was notably high, particularly in self-awareness and responsible decision-making. Strategic foresight was also well-developed, with strengths in implementing strategic pathways and envisioning the school's future, while scanning the educational landscape and forecasting future scenarios require further development. Correlation analysis showed significant positive relationships among all variables. Regression analysis identified responsible decision-making, data literacy, and visioning and mobilizing as significant predictors of strategic foresight, with the model explaining 76.8% of its variance. The study concludes that integrated leadership development programs enhancing collaboration, data competence, and socio-emotional skills are essential to cultivate future-ready school leaders capable of proactive and visionary governance.

Keywords: *Collaborative Leadership, Data-Driven Decision-Making, Socio-Emotional Competence, Strategic Foresight, Educational Leadership.*

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I. INTRODUCTION

In the ever-evolving landscape of education, school leaders must possess the ability to anticipate, adapt, and strategically plan for future challenges. Strategic foresight, the capacity to envision and prepare for long-term developments, is essential in navigating the complexities of educational leadership. This study investigates the interplay of three key competencies: collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence in enhancing strategic foresight among school leaders. Understanding how these factors contribute to effective foresight will provide valuable insights into leadership development and policymaking in the education sector.

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Despite the increasing emphasis on educational leadership, knowledge gaps remain in the strategic foresight abilities of school leaders. Many school administrators struggle to anticipate future challenges due to inadequate collaboration, limited use of data in decision-making, and underdeveloped socio-emotional skills. Studies suggest that while leadership competencies influence foresight, there is a lack of empirical research on their combined impact (Rohrbeck & Kum, 2018). Furthermore, prior research highlights that school leaders often make reactive decisions rather than proactive, future-oriented ones (Harris & Jones, 2020).

Moreover, empirical evidence also highlights these gaps. The latest 2023 National Qualifying Examination for School Heads (NQESH) results revealed that out of 21,803 takers, only 26.39% qualified for Category A, obtaining an overall score of 65 and above with at least four competency domains meeting the threshold. Region X (Northern Mindanao) contributed only 21.83% to the national qualifiers. More alarmingly, among the five assessed competency domains, leading strategically was where test-takers performed the lowest, with 62.90% receiving low scores. Within this domain, 70.97% of Region X takers scored low in the strand on vision, mission, and core values. Additionally, in Domain 4: Developing Self and Others, which ranked among the three lowest-performing domains, 72.58% of test-takers struggled with leadership development in individuals and teams. These findings underscore a pressing need to enhance school leaders' strategic foresight competencies.

Effective educational leadership hinges on the ability to foresee future challenges and opportunities. School leaders equipped with collaborative leadership capacity can engage stakeholders in shared decision-making, fostering innovation and adaptability (Spillane, 2017). Collaboration enhances collective intelligence, allowing leaders to anticipate and address future educational challenges proactively. Similarly, data-driven decision-making capability empowers school leaders to recognize patterns, predict trends, and implement evidence-based strategies, making schools more responsive to emerging challenges (Mandinach & Gummer, 2016). Schools that leverage data effectively are more likely to anticipate challenges and opportunities. Moreover, socio-emotional competence plays a crucial role in leadership effectiveness. Leaders with high socio-emotional competence can manage stress, build strong relationships, and make sound decisions under uncertainty, thereby enhancing their strategic foresight (Goleman, 2019).

Given the significant leadership competency gaps revealed by previous studies and the NQESH results, this study seeks to provide actionable insights into improving leadership effectiveness and school governance. Furthermore, this research aspires to contribute to the development of more future-ready educational leaders and inform policies aimed at strengthening strategic foresight in school leadership.

The study was conducted during the second semester of the school year 2024-2025. A convenient sample of 268 school leaders from the Divisions of Valencia, Malaybalay, and Bukidnon was selected to ensure a representative analysis of the variables under investigation.

II. OBJECTIVES

This study primarily aimed to establish relationship between collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence on school leaders' strategic foresight. Specifically, it aimed to:

- *Assess the Collaborative Leadership Capacity of School Leaders in Terms of:*

  - Assessing the environment,
  - Visioning and mobilizing,
  - Building trust,
  - Sharing power and influence,
  - Developing people, and
  - Self-reflection.

- *Find Out the Data-Driven Decision-Making Capability School Leaders Manifest in the Areas of:*

  - Technological infrastructure and hardware,
  - Data usage culture,
  - Data usage purpose, and
  - Data literacy.

- *Determine the Socio-Emotional Competence of School Leaders in the Fields of:*

  - Self- awareness,
  - Social awareness,
  - Self-management,
  - Relationship management, and
  - Responsible decision-making.

- *Gauge The Level of Strategic Foresight School Leaders Have in Terms Of:*

  - Framing the educational domain,
  - Scanning the educational landscape,
  - Forecasting future school scenarios,
  - Envisioning the school future, and
  - Implementing the strategic school pathways.

- *Correlate Collaborative Leadership Capacity, Data-Driven Decision-Making Capability, Socio-Emotional Competence and Strategic Foresight of School Leaders.*

- *Identify The Factor, Singly or in Combination, Best Predicts Strategic Foresight of School Leaders.*

- *Hypothesis*

  The subsequent null hypotheses were developed and examined using a 0.05 significance level.

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- H_{o1}:

There is no significant relationship between collaborative leadership capacity, data-driven decision-making capability, socio-emotional competence, and strategic foresight of school leaders.

- H_{o2}:

There is no predictor variable of strategic foresight of school leaders.

III. METHODOLOGY

This study employed a descriptive-correlational research design to examine the relationships among collaborative leadership capacity, data-driven decision-making capability, socio-emotional competence, and their combined influence on strategic foresight among school leaders in the Divisions of Valencia, Malaybalay, and Bukidnon during the second semester of the school year 2024-2025. The descriptive-correlational design was appropriate as it allowed for the systematic investigation of naturally occurring relationships between variables without manipulation, thereby capturing authentic dynamics among leadership competencies and strategic foresight.

A convenient sampling method was used to select 268 school leaders, including supervisors, school heads, department heads, master teachers, and other key educational leaders assigned with leadership roles who were accessible and willing to participate. This approach ensured the feasibility of data collection within the study's timeframe while providing a diverse representation of leadership roles across the three divisions.

Data were gathered using validated survey instruments measuring the core constructs: collaborative leadership capacity (covering dimensions such as assessing the environment, visioning and mobilizing, building trust, sharing power and influence, developing people, and self-reflection), data-driven decision-making capability (including technological infrastructure, data usage culture, data usage purpose, and data literacy), socio-emotional competence (encompassing self-awareness, social awareness, self-management, relationship management, and responsible decision-making), and strategic foresight (with domains such as framing the educational domain, scanning the educational landscape, forecasting future scenarios, envisioning the school future, and implementing strategic pathways). The instruments demonstrated high internal consistency, with Cronbach's alpha coefficients ranging from 0.93 to 0.96, indicating excellent reliability and ensuring consistent and valid measurement of the variables.

Descriptive statistics were employed to profile the levels of each variable, while Pearson correlation coefficients were calculated to explore the strength and direction of relationships among them. Multiple regression analysis was conducted to identify which specific competencies best predict strategic foresight. These statistical methods were appropriate for analyzing quantitative data and addressing the study's objectives to understand both relational and predictive aspects of leadership competencies.

Ethical considerations were strictly observed throughout the research process. Informed consent was obtained from all participants, confidentiality was maintained, and data were handled with integrity to protect participants' rights and ensure the credibility of the study. The use of standardized instruments and a systematic sampling approach helped minimize bias and enhance the trustworthiness of the findings.

IV. RESULTS AND DISCUSSION

Table 1 School Leaders' Level of Collaborative Leadership Capacity.

INDICATORS	MEAN	Descriptive Rating	Qualitative Interpretation
Developing people	4.31	Often	Frequently consultative
Assessing the environment	4.30	Often	Frequently consultative
Building trust	4.30	Often	Frequently consultative
Self-reflection	4.30	Often	Frequently consultative
Sharing power and influence	4.26	Often	Frequently consultative
Visioning and mobilizing	4.09	Often	Frequently consultative
Collaborative Leadership Capacity	4.26	Often	Frequently consultative

Table I presents the overall summary of school leaders' collaborative leadership capacity, synthesizing results across six key domains: developing people, assessing the environment, building trust, self-reflection, sharing power and influence, and visioning and mobilizing. All domains received mean scores within the frequently consultative range, with the overall collaborative leadership capacity mean at 4.26. This indicates that, on average, school leaders often exhibit behaviors and practices associated with collaborative leadership.

Notably, the highest mean score (4.31) is found in the domain of developing people, reflecting a strong commitment among school leaders to mentorship, professional growth, and empowering others. Close behind are assessing the environment, building trust, and self-reflection (each at 4.30), highlighting leaders' strengths in understanding their context, fostering open and trusting relationships, and engaging in reflective practices. The domains of sharing power and influence (4.26) and visioning and mobilizing (4.09) also fall within the frequently consultative range, though visioning and mobilizing is the lowest among the domains, suggesting

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a relatively lesser-though still substantial-emphasis on collaborative vision-setting and collective action.

These results reveal a consistent pattern: school leaders in this study regularly engage in collaborative practices across all key aspects of their roles. Their frequent consultation with stakeholders, commitment to building trust, and focus on developing people are hallmarks of a collaborative leadership culture. The slightly lower score in visioning and mobilizing may point to an opportunity for leaders to further strengthen the processes by which they co-create and communicate a shared vision for their schools.

From an educational administration perspective, these findings have several important implications. First, the strong scores across all domains affirm that collaborative leadership is well-embedded in the school culture, likely contributing to enhanced teacher engagement, greater job satisfaction, and improved student outcomes. The emphasis on developing people and building trust is particularly significant, as research consistently links these practices to higher teacher retention, professional growth, and a more resilient school environment (Leithwood et al., 2020; Harris & Jones, 2019).

Second, the data suggest that while school leaders are adept at consultation and participatory decision-making, there may be room to further empower stakeholders in the visioning and mobilizing process. This could involve more intentional efforts to articulate a shared vision that is deeply rooted in community values and assets, as well as ensuring that all voices are heard in shaping the school's direction (Lambert as mentioned in Wang et. Al., 2021; Walker & Riordan, 2010).

These findings are strongly supported by the literature. Collaborative leadership has been shown to foster professional learning communities, promote shared accountability, and drive sustainable school improvement (Spillane, 2017). The importance of trust, open communication, and distributed leadership is emphasized by Hallinger and Heck (2010), Hargreaves and O'Connor (2018), and Antinluoma, Ilomäki, and Toom (2021), all of whom note that such practices create inclusive, innovative, and adaptive school cultures. Furthermore, the slightly lower score in visioning and mobilizing echoes findings by Groth (2012) and Tenuto (2014), who highlight the need for ongoing professional development and structured opportunities for collaborative vision-building.

Table 2 School Leaders' Degree of Data-Driven Decision-Making Capability.

INDICATORS	MEAN	Descriptive Rating	Qualitative Interpretation
Data usage purpose	4.30	Often	Competently equipped
Technological infrastructure and hardware	4.12	Often	Competently equipped
Data literacy	4.10	Often	Competently equipped
Data Usage culture	4.09	Often	Competently equipped
Data-Driven Decision-Making Capability	4.15	Often	Competently equipped

A comprehensive overview of school leaders' data-driven decision-making capability is presented in table II, synthesizing key dimensions such as data usage purpose, technological infrastructure and hardware, data literacy, and data usage culture. The overall mean for data-driven decision-making capability is 4.15, with a descriptive rating of often and a competently equipped interpretation. Among the subscales, the highest mean is observed in data usage purpose (4.30), while the lowest is in data usage culture (4.09). Both technological infrastructure and hardware (4.12) and data literacy (4.10) also fall within the often range, indicating consistent competence across all domains.

The data reveal that school leaders feel most capable in applying data for specific purposes, such as planning, monitoring, and intervention. This suggests that leaders are adept at using data as a tool for targeted actions and strategic decision-making-an essential trait for effective school management. The lower score for data usage culture may indicate that, while systems and skills are in place, fully embedding data-driven practices into the daily culture of schools remains a work in progress. This could reflect challenges in fostering collective buy-in, ensuring consistent data use among all staff, or overcoming resistance to change.

The high rating observed for data usage purpose reflects the findings of Mandinach and Gummer (2016), who emphasize that the transformation of raw data into actionable knowledge is central to effective educational leadership. School leaders' ability to use data purposefully aligns with the broader literature, which highlights data-driven decision-making as a mechanism for guiding strategic initiatives, improving teaching effectiveness, and ensuring resource allocation is both efficient and equitable (Mayer, 2006; Sulla, Monacis, & Limone, 2023).

Conversely, the slightly lower mean for data usage culture points to an area where further development may be beneficial. While leaders possess the skills and infrastructure to use data, embedding these practices into the daily fabric of school life-so that data use becomes routine, collaborative, and embraced by all staff-remains a challenge. This is consistent with the work of Wayman et al. (2012) and Abdul-Azeez, Ihechere, and Idemudia (2024), who argue that a supportive organizational culture is essential for the systemic adoption of data-driven practices. The development of such a culture requires not only technical skills but also ongoing professional development, collaborative inquiry, and leadership that model evidence-based decision-making.

The results also underscore the importance of technological infrastructure and data literacy as foundational elements of data-driven leadership. As noted by García-Peñalvo (2021) and Schildkamp and Datnow (2020), access to reliable technology and the ability to interpret and analyze

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data are prerequisites for meaningful data use. In the context of digital transformation, these competencies are increasingly critical for leveraging advanced analytics, optimizing resource allocation, and fostering continuous improvement.

Table 3 School Leaders' Extent of Socio-Emotional Competence.

INDICATORS	MEAN	Descriptive Rating	Qualitative Interpretation
Self-awareness	4.52	Always	Exceptionally competent
Responsible decision-making	4.45	Often	Emotionally adept
Relationship management	4.24	Often	Emotionally adept
Self-management	4.13	Often	Emotionally adept
Social awareness	4.07	Often	Emotionally adept
Socio-Emotional Competence	4.28	Often	Emotionally adept

Table III provides a summary of school leaders' socio-emotional competence across five core domains: self-awareness, responsible decision-making, relationship management, self-management, and social awareness. The overall mean for socio-emotional competence is 4.28, having a descriptive rating of often and interpreted as emotionally adept. Notably, self-awareness stands out with the highest mean of 4.52 (always, exceptionally competent), while social awareness records the lowest at 4.07 (often, emotionally adept). The other domains-responsible decision-making (4.45), relationship management (4.24), and self-management (4.13)-also fall within the often range description, indicating a generally high level of socio-emotional functioning among school leaders.

This distribution of scores reveals a detailed profile of socio-emotional strengths and developmental opportunities. School leaders excel most in self-awareness, suggesting a profound capacity for introspection, emotional understanding, and recognition of their own motivations and behaviors. This high self-awareness is foundational for effective leadership, as it enables leaders to regulate their actions and responses, fostering authenticity and trust within their communities. Responsible decision-making also scores highly, indicating that leaders are adept at weighing consequences, considering ethical implications, and striving for positive outcomes-a competency critical for guiding schools through complex, high-stakes situations.

Relationship management and self-management, while still strong, show slightly lower means. This suggests that while leaders are generally effective in building positive relationships, managing conflicts, and regulating their emotions, there is room for further growth in these areas, particularly in sustaining patience, tolerance, and composure under pressure. Social awareness, the lowest among the domains, points to a developmental opportunity in deepening empathy, perspective-taking, and responsiveness to the emotions and needs of others. This is particularly important in diverse school environments, where understanding and valuing different perspectives is essential for fostering inclusivity and collaboration.

The implications of these findings for educational administration are significant. As the literature underscores, socio-emotional competence is a cornerstone of effective school leadership (Goleman, 1995; CASEL, 2020). Leaders who are emotionally intelligent are better equipped to communicate, resolve conflicts, and inspire their teams, thereby promoting a positive school climate and organizational health (Brackett et al., 2019; Boyatzis et al., 2013). High self-awareness and responsible decision-making support ethical leadership and strategic foresight, enabling leaders to anticipate challenges, adapt to change, and make informed decisions that align with both present needs and future goals (Lum, 2016; Malmelin, Pihlajamaa, & Komonen, 2021). The slightly lower scores in social awareness and self-management suggest that targeted professional development in empathy, active listening, and stress regulation could further enhance leaders' effectiveness, especially in contexts of rapid change and increasing diversity.

Empirical research strongly supports these conclusions. Studies have shown that emotionally intelligent leaders contribute to improved teacher retention, student engagement, and overall school success (Leithwood & Sun, 2018; Zins et al., 2004). Socio-emotional competence also promotes resilience and well-being among educators, helping them navigate stress and maintain a healthy work-life balance (Caparoso et al., 2024; Pena et al., 2021). Furthermore, the integration of socio-emotional skills with strategic foresight empowers leaders to guide their schools proactively, fostering innovation, adaptability, and long-term sustainability (Hines & Gold, 2015; Vecchiato, 2012).

Table 4 School Leaders' Level of Strategic Foresight.

INDICATORS	MEAN	Descriptive Rating	Qualitative Interpretation
Implementing the strategic school pathways	4.32	Often	Foresight-oriented
Envisioning the school future	4.31	Often	Foresight-oriented
Framing the educational domain	4.27	Often	Foresight-oriented
Forecasting the future school scenarios	4.20	Often	Foresight-oriented
Scanning the educational landscape	4.17	Often	Foresight-oriented
Strategic Foresight	4.25	Often	Foresight-oriented

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The summary of school leaders' strategic foresight across its principal domains: implementing strategic school pathways, envisioning the school future, framing the educational domain, forecasting future school scenarios, and scanning the educational landscape is presented in table IV above. The overall mean for strategic foresight is 4.25, falling within the often range and interpreted as being foresight oriented. Among the domains, the highest mean is for implementing the strategic school pathways (4.32), while the lowest is for scanning the educational landscape (4.17). All the domains are consistently rated as often and are interpreted as foresight-oriented, reflecting a strong and proactive orientation toward future-focused leadership.

The results reveal that school leaders are most confident in the implementation of strategic pathways and the envisioning of the school's future. These high scores indicate a strong capacity to translate vision into action and to inspire a shared sense of direction within the school community. Slightly lower, though still strong, are the means for framing the educational domain and forecasting future scenarios, suggesting that while leaders are skilled at setting direction and anticipating change, there may be opportunities to further formalize scenario planning and environmental scanning practices. The lowest mean, for scanning the educational landscape, points to a potential area for development-namely, the need for more systematic and data-driven approaches to monitoring trends, innovations, and external influences that could impact the school.

These findings have significant implications for educational administration. The strong performance in implementing strategic pathways and envisioning the school future reflects a leadership culture that values both action and aspiration. Leaders are not only able to articulate a compelling vision but also to operationalize it through concrete initiatives and collaborative planning. This aligns with the principles of transformational leadership, where vision and execution go hand in hand (Hines & Gold, 2015; Malmelin, Pihlajamaa, & Komonen, 2021).

However, the slightly lower scores in forecasting scenarios and scanning the landscape highlight the importance of continuous professional development in foresight tools and methodologies. In a rapidly changing educational environment, the ability to systematically gather, interpret, and act on emerging trends is essential for institutional agility and long-term sustainability (Horizon Report, 2021; Battistella, 2014). Strengthening these competencies will enable school leaders to better anticipate disruptions, seize new opportunities, and ensure that strategic plans remain relevant and resilient.

Moreover, the findings suggest that while school leaders are generally foresight-oriented, there is a need to further embed foresight practices into the school's culture. This includes fostering a mindset of continuous learning, encouraging scenario-based planning, and engaging a broader range of stakeholders in the foresight process. Such practices not only enhance the school's capacity to navigate uncertainty but also build collective ownership and alignment around the school's long-term goals (Da'as & Ali, 2021; Basu & Bale, 2023).

The literature strongly supports the centrality of strategic foresight in effective educational leadership. Strategic foresight equips leaders to anticipate trends, manage uncertainties, and proactively shape the direction of their institutions (Lum, 2016; Miller, 2018). Foresight-oriented leaders foster innovation, resilience, and sustainability by integrating scenario planning, trend analysis, and collaborative inquiry into their decision-making processes (Vecchiato, 2012; Utkin, Bagramyants, & Safyanov, 2021). Furthermore, the OECD (2018) emphasizes the importance of future-oriented leadership in preparing schools for the demands of the 21st century, highlighting the need for continuous environmental scanning and adaptive planning. Fullan (2020) and Senge (2006) further argue that organizational learning and feedback systems are critical for building resilient, future-ready educational institutions. Bryson (2015) and Greenblott et al. (2018) also underscore the value of regular assessment and realignment of strategic goals to ensure sustained progress and responsiveness to evolving challenges.

Table 5 Correlation of Collaborative Leadership Capacity, Data-Driven Decision-Making Capability, and Socio-Emotional Competence on Strategic Foresight.

Independent Variables	Pearson Coefficient (r- value)	Probability (p- value)
Collaborative Leadership Competence	0.785	0.000**
Assessing the environment	0.671	0.000**
Visioning and mobilizing	0.649	0.000**
Building trust	0.647	0.000**
Self-reflection	0.636	0.000**
Developing people	0.621	0.000**
Sharing power and influence	0.590	0.000**
Data-driven Decision-Making Capability	0.777	0.000**
Data literacy	0.696	0.000**
Data usage purpose	0.674	0.000**
Data usage culture	0.633	0.000**
Technological infrastructure and hardware	0.606	0.000**
Socio-emotional Competence	0.745	0.000**
Responsible decision-making	0.702	0.000**

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Self-awareness	0.649	0.000**
Relationship management	0.614	0.000**
Self-management	0.565	0.000**
Social awareness	0.534	0.000**

**Correlation Is Significant at the 0.01 Level (2-Tailed).

Table V displays the correlation coefficients between three independent variables: collaborative leadership competence, data-driven decision-making capability, and socio-emotional competence, and the dependent variable, strategic foresight. The Pearson correlation coefficients (r-values) and their corresponding significance levels (p-values) indicate the strength and significance of these relationships.

The results show strong positive correlations between all three independent variables and strategic foresight. Collaborative leadership competence exhibits the highest correlation with strategic foresight ($r = 0.785$, $p = 0.000$), followed closely by data-driven decision-making capability ($r = 0.777$, $p = 0.000$) and socio-emotional competence ($r = 0.745$, $p = 0.000$). All correlations are statistically significant at the 0.01 level (2-tailed), indicating a very low probability that these relationships are due to chance.

Given the p-values (all 0.000), the null hypothesis, that there is no significant relationship between each independent variable and strategic foresight, is decisively rejected. This means that collaborative leadership competence, data-driven decision-making capability, and socio-emotional competence significantly influence school leaders' strategic foresight.

Further disaggregation of collaborative leadership competence reveals significant positive correlations with strategic foresight across its sub-dimensions, including assessing the environment ($r = 0.671$), visioning and mobilizing ($r = 0.649$), building trust ($r = 0.647$), self-reflection ($r = 0.636$), developing people ($r = 0.621$) and sharing power and influence ($r = 0.590$), all with p-values of 0.000. Similarly, data-driven decision-making capability's sub-components- data literacy ($r = 0.696$), data usage purpose ($r = 0.674$), data usage culture ($r = 0.633$) and technological infrastructure and hardware ($r = 0.606$)- also show strong, significant correlations with strategic foresight. Socio-emotional competence subscales, including responsible decision-making ($r = 0.702$), self-awareness ($r = 0.649$), relationship management ($r = 0.614$), self-management ($r = 0.565$) and social awareness ($r = 0.534$) likewise correlate positively and significantly with strategic foresight.

The magnitude of these correlations suggests that collaborative leadership competence has the strongest association with strategic foresight, highlighting the critical role of leaders' ability to work collectively, build trust, and mobilize stakeholders in shaping future-oriented school strategies. Data-driven decision-making capability closely follows, emphasizing the importance of leveraging data and technology to inform forward-looking decisions. Socio-emotional competence, while slightly lower, remains a robust correlator, underscoring the influence of leaders' emotional intelligence and interpersonal skills in envisioning and preparing for the future.

The significant correlations across all sub-dimensions reinforce that strategic foresight is a multifaceted construct influenced by diverse leadership capacities. For example, self-reflection and assessing the environment within collaborative leadership enable leaders to critically evaluate current realities and anticipate future challenges. Data literacy and data usage purpose within decision-making capability empower leaders to interpret and apply information strategically. Meanwhile, responsible decision-making and relationship management within socio-emotional competence facilitate ethical, inclusive, and adaptive leadership practices essential for navigating complex futures.

These findings carry profound implications for educational administration. They suggest that developing collaborative leadership skills, enhancing data-driven decision-making processes, and fostering socio-emotional competence are vital pathways to strengthening leaders' capacity for strategic foresight. Schools led by individuals proficient in these domains are better equipped to anticipate trends, mobilize stakeholders, and craft adaptive strategies that ensure long-term success. Moreover, the interplay among these competencies' points to the necessity of holistic leadership development programs that integrate technical, relational, and reflective skills.

The results align with extensive literature emphasizing the multidimensional nature of effective educational leadership. Collaborative leadership's influence on strategic foresight is supported by studies such as Leithwood and Sun (2018), who highlight the role of collective leadership in fostering innovation and shared vision. Data-driven decision-making's predictive power is corroborated by Mandinach and Gummer (2016), who argue that data literacy and data usage purpose are foundational to evidence-based, future-oriented leadership. Socio-emotional competence's role is well-documented by Goleman (1995) and Brackett et al. (2019), who link emotional intelligence to adaptive, ethical, and visionary leadership.

Furthermore, the integration of these competencies underpins transformational and adaptive leadership theories, which emphasize the importance of relational trust, reflective practice, and informed decision-making in navigating complex educational environments (Fullan, 2020; Senge, 2006). The significant correlations found in this study reinforce the notion that strategic foresight is not a standalone skill but a composite capability emerging from the synergy of collaborative, data-driven, and socio-emotional leadership capacities.

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Table 6 Regression Analysis of Variables That Best Predict School Leaders' Strategic Foresight.

Predictor Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.080	0.146		0.553	0.581
Socio-emotional Competence					
Responsible decision-making	0.203	0.038	0.224	5.385	0.000
Self-management	0.071	0.030	0.089	2.341	0.020
Data-driven Decision-making Capability					
Data literacy	0.169	0.035	0.202	4.826	0.000
Data usage purpose	0.148	0.037	0.178	4.061	0.000
Data usage culture	0.076	0.036	0.090	2.106	0.036
Collaborative Leadership Capacity					
Visioning and mobilizing	0.112	0.037	0.136	3.055	0.002
Developing people	0.102	0.033	0.125	3.119	0.002
Building trust	0.102	0.040	0.119	2.563	0.011
R= 0.876	R^2= 0.768	F= 107.116		p-value= 0.000	

Table VI presents the results of the multiple regression analysis conducted to determine which dimensions of collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence best predict school leaders' strategic foresight. The regression model yielded a multiple correlation coefficient (R) of 0.876 and an R^2 value of 0.768, indicating that approximately 76.8% of the variance in strategic foresight can be explained by the combined predictor variables. The overall model is statistically significant ($F = 107.116$, $p = 0.000$).

Several predictors emerged as significant contributors to strategic foresight. From the domain of socio-emotional competence, responsible decision-making ($B = 0.203$, $\beta = 0.224$, $p = 0.000$) and self-management ($B = 0.071$, $\beta = 0.089$, $p = 0.020$) were significant. Within data-driven decision-making capability, data literacy ($B = 0.169$, $\beta = 0.202$, $p = 0.000$), data usage purpose ($B = 0.148$, $\beta = 0.178$, $p = 0.000$), and data usage culture ($B = 0.076$, $\beta = 0.090$, $p = 0.036$) were significant. For collaborative leadership capacity, visioning and mobilizing ($B = 0.112$, $\beta = 0.136$, $p = 0.002$), developing people ($B = 0.102$, $\beta = 0.125$, $p = 0.002$) and building trust ($B = 0.102$, $\beta = 0.119$, $p = 0.011$), were also significant predictors.

From the preceding result, the equation useful in predicting the strategic foresight (Y) of school leaders using the unstandardized coefficients is illustrated as follows:

$$Y= B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8$$

$$Y= 0.080 + 0.203X_1 + 0.071X_2 + 0.169X_3 + 0.148X_4 + 0.076X_5 + 0.112X_6 + 0.102X_7 + 0.102X_8$$

where:

Y= Strategic foresight

X_1= Responsible decision-making

X_2= Self-management

X_3= Data literacy

X_4= Data usage purpose

X_5= Data usage culture

X_6= Visioning and mobilizing

X_7= Developing people

X_8= Building trust

This analysis further reveals that responsible decision-making ($\beta = 0.224$) is the strongest predictor of strategic foresight among all variables, underscoring the critical importance of ethical, informed, and future-oriented decision-making in school leadership. Data literacy ($\beta = 0.202$) and data usage purpose ($\beta = 0.178$) also have substantial predictive power, highlighting the role of data competence in anticipating trends and informing strategic planning. The significance of building trust, visioning and mobilizing, and developing people within collaborative leadership capacity demonstrates that relational and developmental aspects of leadership are essential for fostering a shared vision and mobilizing collective action toward future goals. The positive coefficients for self-management and data usage culture further emphasize the value of emotional regulation and a supportive data environment in sustaining long-term, adaptive strategies.

Each predictor's statistical significance ($p < 0.05$) indicates that these leadership competencies make unique and meaningful contributions to the development of strategic foresight. The high R^2 value suggests that the model is robust and that these variables collectively provide a comprehensive explanation of what drives future-oriented leadership in schools.

Given the model's significance ($p = 0.000$) and the fact that each predictor has a p-value less than 0.05, the null hypothesis, that collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence do not significantly predict strategic foresight, is rejected. Instead, the findings affirm that these competencies,

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both individually and collectively, are strong predictors of strategic foresight among school leaders.

The implications of this result for educational administration are profound. First, the prominence of responsible decision-making and data literacy suggests that leadership development programs should prioritize ethical judgment and data competence. School leaders who can interpret data, make informed decisions, and act responsibly are better equipped to anticipate and navigate future challenges. Second, the significance of building trust, visioning, and developing people underscores the need for relational, collaborative, and developmental leadership approaches. Schools that cultivate trust, shared vision, and professional growth are more likely to foster innovation and resilience. Finally, the importance of self-management and data usage culture points to the value of emotional intelligence and institutional support systems in sustaining effective foresight practices.

These findings are strongly supported by the literature. Goleman (2019) and Brackett et al. (2019) highlight the centrality of socio-emotional competence-particularly responsible decision-making and self-management-in adaptive and visionary leadership. Mandinach and Gummer (2016) emphasize that data literacy and data usage purpose are foundational for evidence-based, future-oriented decision-making. The significance of collaborative leadership dimensions such as building trust and visioning is echoed by Spillane (2017) and Leithwood & Sun (2018), who argue that collective intelligence and shared purpose are crucial for strategic school improvement. Further, the high explanatory power of the model aligns with research by Rohrbeck & Kum (2018), which demonstrates that the integration of collaborative, data-driven, and socio-emotional competencies is essential for robust strategic foresight in complex environments. The OECD (2018) and Fullan (2020) also advocate for leadership development frameworks that integrate these dimensions to prepare school leaders for the demands of 21st-century education.

V. SUMMARY

This study primarily aimed to establish the relationship between collaborative leadership capacity, data-driven decision-making capability, and socio-emotional competence on the strategic foresight of school leaders in the Divisions of Valencia, Malaybalay, and Bukidnon. Specifically, it sought to assess the levels of collaborative leadership capacity in terms of assessing the environment, visioning and mobilizing, building trust, sharing power and influence, developing people, and self-reflection; determine the data-driven decision-making capability manifested in technological infrastructure, data usage culture, data usage purpose, and data literacy; evaluate socio-emotional competence across self-awareness, social awareness, self-management, relationship management, and responsible decision-making; gauge the level of strategic foresight in framing the educational domain, scanning the educational landscape, forecasting future school scenarios, envisioning the school's future, and implementing strategic pathways; correlate the main variables; and identify the best predictor or combination of predictors of strategic foresight.

The study employed a descriptive-correlational research design involving 268 school leaders from the three divisions during the second semester of the school year 2024-2025. Data were collected using validated survey instruments with excellent reliability as indicated in the Cronbach's alpha ranging from 0.93 to 0.96. Descriptive statistics profiled the levels of each variable, Pearson correlation coefficients examined relationships among variables, and multiple regression analysis identified predictors of strategic foresight.

Findings revealed that school leaders frequently demonstrate strong collaborative leadership capacity with an overall mean of 4.26 and interpreted as frequently consultative, particularly in developing people (M = 4.31), assessing the environment (M = 4.30), building trust (M = 4.30), and self-reflection (M = 4.30). Visioning and mobilizing scored lower but still substantial (M = 4.09). Data-driven decision-making capability was competently equipped with an overall mean of 4.15; data usage purpose had the highest mean (M = 4.30), followed by technological infrastructure (M = 4.12), data literacy (M = 4.10), while data usage culture scored the lowest (M = 4.09), indicating room for growth. Socio-emotional competence was high with a mean of 4.28 indicating and emotionally adept school leaders. Self-awareness was recorded with the highest mean (M= 4.52) revealing and exceptionally competent school leaders in terms of self-awareness. It was followed by responsible decision-making (M = 4.45) and relationship management (M = 4.24) implying notable strengths. Strategic foresight recorded a mean of 4.25 suggesting foresight-oriented school leaders, with implementing strategic pathways (M = 4.32), envisioning the school future (M = 4.31), framing the educational domain (M = 4.27) and forecasting future scenarios (M = 4.20) rated higher than scanning the educational landscape (M = 4.17).

Correlation analysis revealed significant positive relationships among collaborative leadership capacity ($r = 0.785$, $p < 0.01$), data-driven decision-making capability ($r = 0.777$, $p < 0.01$), socio-emotional competence ($r = 0.745$, $p < 0.01$), and strategic foresight. Sub-variables such as responsible decision-making ($r = 0.702$), data literacy ($r = 0.696$), data usage purpose ($r = 0.674$), assessing the environment ($r = 0.671$), visioning and mobilizing ($r = 0.649$), self-awareness ($r = 0.649$), building trust ($r = 0.647$), self- reflection ($r = 0.636$), data usage culture ($r = 0.633$), developing people ($r = 0.621$), relationship management ($r = 0.614$) and technological infrastructure and hardware ($r = 0.606$) showed strong associations with strategic foresight. Multiple regression analysis identified that responsible decision-making ($\beta = 0.224$) is the strongest predictor of strategic foresight among all variables, underscoring the critical importance of ethical, informed, and future-oriented decision-making in school leadership. Data literacy ($\beta = 0.202$) and data usage purpose ($\beta = 0.178$) also have substantial predictive power, highlighting the role of data competence in anticipating trends and informing strategic planning. Visioning and mobilizing ($\beta = 0.136$), developing

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people (β = 0.125), data usage culture (β = 0.090), and self-management (β = 0.089) also significantly predicted strategic foresight. Together, these variables explained a substantial portion 76.8% of the variance in strategic foresight (R^2 = 0.768).

These findings underscore the importance of integrated leadership development programs that holistically enhance collaboration, data literacy, and socio-emotional skills to cultivate school leaders capable of proactive and visionary governance in dynamic educational environments.

VI. CONCLUSIONS

The study provided valuable insights into the factors shaping the strategic foresight among the school leaders in the Divisions of Valencia, Malaybalay, and Bukidnon. Based on the findings of the study, the following conclusions were derived:

The school leaders consistently demonstrate strong collaborative leadership capacity and are frequently consultative, particularly in the sub-variables of developing people, assessing the environment, building trust, and self-reflection. While visioning and mobilizing received slightly lower scores, these areas still reflect a substantial level of competence, indicating that collaborative leadership is well-established but could benefit from further enhancement in collective vision-setting and action.

Regarding data-driven decision-making capability, school leaders exhibit proficiency and competently equipped in applying data for planning, monitoring, and intervention purposes. The study identified data usage purpose, technological infrastructure, and data literacy as notable strengths. However, the integration of a pervasive data usage culture within schools remains an area for improvement, suggesting that while leaders possess essential skills and resources, fostering collective commitment to data-driven practices warrants additional focus.

The socio-emotional competence of school leaders was found to be high, indicating emotionally adept interpretation, with particular strength in self-awareness, responsible decision-making, and relationship management. These competencies enable leaders to effectively manage stress, cultivate strong interpersonal relationships, and make sound decisions amidst uncertainty-qualities essential for adaptive and effective leadership in complex educational settings.

In terms of strategic foresight, school leaders demonstrate foresight-oriented capability, which ranges from moderate to high level of capability, especially in implementing the strategic school pathways and envisioning the school future. Nonetheless, framing the educational domain, forecasting future scenarios, and scanning the educational landscape were identified as areas requiring further development. This indicates that while leaders are proficient in implementing plans and are forward-thinking, additional support is necessary to fully cultivate proactive and future-oriented leadership.

The correlation analysis revealed significant positive relationships among the key variables. Specifically, collaborative leadership capacity showed strong correlations with sub-variables such as assessing the environment, visioning and mobilizing, building trust, self-reflection and developing people. Data-driven decision-making capability correlated notably with data literacy, data usage purpose, data usage culture and technological infrastructure. Socio-emotional competence's sub-variables of responsible decision-making, self-awareness and self-management also exhibited significant positive associations. These interrelations underscore the integrated nature of these competencies in shaping effective leadership.

Regression analysis further identified socio-emotional competence as the strongest predictor of strategic foresight, with its sub-variables of responsible decision-making and self-management contributing most substantially. Data-driven decision-making capability, especially data literacy, data usage purpose and data usage culture, and collaborative leadership capacity, particularly through the sub-variables of visioning and mobilizing, developing people and building trust, also significantly predicted strategic foresight. Together, these factors form a comprehensive foundation for cultivating future-ready school leaders who can anticipate and navigate emerging challenges with vision and adaptability.

RECOMMENDATIONS

Based on the conclusions drawn from this study, several recommendations are proposed to enhance the strategic foresight and overall leadership competence of school leaders in the Divisions of Valencia, Malaybalay, and Bukidnon.

To strengthen collaborative leadership capacity-particularly in the areas of visioning and mobilizing-it is recommended that school leaders engage in targeted professional development programs focused on collective vision-setting and strategic action planning. Such initiatives may include workshops and coaching sessions designed to enhance skills in building shared goals and mobilizing stakeholders effectively. Additionally, establishing collaborative platforms where leaders can exchange best practices related to developing people, assessing the environment, building trust, and self-reflection will reinforce existing strengths and promote sustained leadership growth.

Given the demonstrated proficiency of school leaders in data-driven decision-making and the identified need to cultivate a pervasive data usage culture, capacity-building efforts may emphasize embedding data practices into the daily operations of schools. Training modules aimed at enhancing data literacy across the entire school community, promoting data usage purpose, and optimizing technological infrastructure are essential. Furthermore, encouraging collaborative data inquiry and reflective sessions among staff members may foster a collective commitment to evidence-based decision-making and continuous improvement.

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Leadership development programs may incorporate social and emotional learning frameworks to build upon the high socio-emotional competence observed among school leaders- especially in self-awareness, relationship management, and responsible decision-making. These programs can equip leaders with strategies to manage stress, nurture strong interpersonal relationships, and navigate complex decision-making with empathy and ethical consideration. The establishment of mentorship and peer-support networks focused on emotional intelligence may further enhance leaders' adaptive capacities within dynamic educational contexts.

Specialized training in strategic planning and scenario-based exercises is advisable to advance strategic foresight capabilities, particularly in forecasting future scenarios, envisioning the school's future, and implementing strategic pathways. Workshops on environmental scanning, trend analysis, and long-term visioning techniques can provide leaders with practical tools to anticipate change and proactively shape their schools' trajectories. Opportunities for engaging in forward-thinking simulations and collaborative strategic dialogues will further strengthen their capacity for future-oriented leadership.

Recognizing the significant positive relationships among collaborative leadership, data-driven decision-making, socio-emotional competence, and strategic foresight, an integrated approach to leadership development is recommended. Comprehensive programs that address these interconnected competencies simultaneously-such as leadership academies or professional learning communities-are likely to be most effective in cultivating future-ready school leaders. Emphasizing key sub-variables, including developing people, building trust, data usage purpose, self-awareness, and responsible decision-making, within these programs will ensure a holistic enhancement of leadership capacity.

Education authorities and schools may consider establishing policies and institutional frameworks that support ongoing professional growth in these areas to sustain and deepen these competencies. Providing adequate resources, dedicated time, and appropriate incentives for continuous learning, collaboration, and reflective practice will help embed these competencies into the organizational culture. Moreover, further research is encouraged to explore innovative strategies for integrating these leadership dimensions more fully and to examine their long-term impact on school performance and community outcomes.

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