Modelling school principals' soft skills with sustainable administrative effectiveness

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Article Info	ABSTRACT
	Effective school leadership is pivotal to the success of educational institutions. While traditional leadership models have emphasized technical skills and administrative competencies, the significance of soft skills in educational leadership has gained increasing attention in recent years. This study explores the direct and indirect relationship between principals' soft skills and sustainable administrative effectiveness (SAE). The objectives that guided this study are to investigate the direct and indirect influence of soft skills (critical thinking, empathy, communication, adaptability, and leadership) on the SAE of school principals. Stratified and random sampling techniques were adopted to select the participants. Questionnaires, school principals' soft skills questionnaire (SPSSQ) and sustainable administrative effectiveness questionnaire (SAEQ), were administered to about 432 teachers. The findings revealed a strong positive correlation between principals' soft skills and their SAE. Therefore, all soft skills directly relate to SAE except critical thinking skills. Empathy, communication, adaptation and innovation, and leadership skills were found to have direct effect on SAE. Whereas critical thinking has no direct effect on SAE but could influence indirectly SAE through other factors. This ultimately results in the achievement of SAE with indirect relationships. Based on the research outcomes, this study suggests that school administrators should invest in professional development programs to enhance principals' soft skills to achieve SAE

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1. INTRODUCTION

The significance of education in facilitating societal advancement is paramount, and the efficacy and proficiency of a school principal are essential to the achievement of any thriving educational establishment. The principal's primary responsibility includes overseeing the operational aspects of the school daily [1], [2]. Moreover, school principals assume a crucial function in moulding students' educational encounters, cultivating a favorable school atmosphere, and guaranteeing the enduring efficacy of administrative protocols [3]–[5]. Within the current educational milieu, characterized by its growing complexity and adaptability, the paramount importance of soft skills within the realm of school leadership cannot be overemphasized [6], [7]. Lifelong learning is an integral part of leadership [8]; thus, leadership in the context of a changing era is a crucial and evolving subject. In today's fast-paced and dynamic world, effective leadership is characterized by adaptability, innovation, and the ability to guide organizations through periods of transformation. To lead

a successful school in the changing era, school principals must be possessed with soft skills as part of fourth industrial revolution skills [9], [10]. Therefore, leadership in a changing era is about being proactive, forward-thinking, and responsive to the evolving landscape.

Leadership in a change era is characterized with adaptability, vision, communication, resilience, understanding change management principles, collaboration, empowerment, continuous learning, risk management, information management, emotional intelligence, and innovation among others [11]–[16]. Effective leadership fosters a culture of critical thinking, which in turn promotes innovation [13]. Innovative leaders are open to new ideas and are willing to take calculated risks to drive progress and success [17]. Innovative principals encourage creativity and provide the necessary environment for their team to come up with novel solutions and continuously improve learning processes.

Soft skills, often referred to as interpersonal skills, emotional intelligence, adaptability, and effective communication, contain abstract attributes that empower leaders to develop connections with their teams, promote collaboration, and negotiate the complexities inherent in the educational setting [18]–[21]. The significance of soft skills demonstrated by school principals cannot be overstated, as they have a crucial impact on determining the overall effectiveness and long-term viability of school, despite the undeniable importance of technical aspects in school administration [18], [22]

Sustainable administrative effectiveness (SAE) in the context of educational leadership refers to the capacity of school administrators, such as principals, superintendents, and district leaders, to consistently and efficiently manage and lead educational institutions in a manner that promotes long-term success and positive outcomes [23]–[26]. Effective educational leaders need to balance various responsibilities, including curriculum development, staff management, resource allocation, community engagement, and student achievement [1]. SAE acknowledges that administrators must excel in multiple domains and integrate their efforts holistically [27], [28]. Educational institutions operate in dynamic environments characterized by evolving pedagogical approaches, technological advancements, demographic shifts, and policy changes [29], [30]. SAE involves using data not only to address immediate issues but also to guide long-term planning and improvement efforts [31]. School leaders must continuously develop their personal and interpersonal skills and knowledge to remain effective. SAE emphasizes ongoing professional development for administrators, including training in leadership, management, and educational trends [32], [33].

Effective administrators prioritize the needs and well-being of students above all else. They create an environment that fosters student success, well-being, and growth. Sustainable administrative effectiveness looks beyond individual performance and promotes systemic improvements in educational institutions. It aims to create a culture of continuous improvement that extends to all aspects of the organization. SAE involves understanding and aligning policies with the institution's mission and goals [34]. SAE is a multifaceted concept that goes beyond short-term achievements and seeks to establish a foundation for long-term success and adaptability in educational leadership. It requires a combination of leadership skills, ethical behaviors, data-driven decision-making, stakeholder engagement, and a commitment to the institution's mission and goals. It is an essential aspect of effective educational leadership that contributes to the overall success of schools and school districts.

Leadership skills are crucial to success in any context, including schools. Leadership skills are one of the most challenging aspects of school leadership in Africa. There is an incredible diversity of languages in Africa. Managing multiple languages in a school community may pose communication challenges for school leaders [35]. Diversity within the school community must be understood and respected. To ensure effective communication and collaboration, school leaders must develop cultural competence. Cultural differences in norms and values can impact school communities [36]–[38]. A harmonious school environment requires strong conflict-resolution skills from school leaders. School leaders must manage their emotions and understand others' emotions. Emotional balance can be difficult in high-stress environments, resource constraints, and other situations [39]–[41]. In regions with diverse backgrounds, leaders may have difficulty allocating limited resources fairly and transparently, potentially leading to conflicts among staff. Staff members need to feel valued and included by school leaders. Engaging local communities is often essential to effective school leadership in Africa [42], [43]. A supportive educational environment can only be created when leaders build strong relationships with parents and community members [44].

In order to solve problems in African schools, school leaders need to be adaptable and resilient [45]. As education policies change, school leaders need to make sure that they adapt to new requirements and ensure that they are implemented successfully. The decision to allocate resources, alter curriculums, and deal with other critical aspects of a school's operation is often a difficult one for school leaders. Leaders must develop the ability to balance competing priorities. In some regions, providing school leaders with ongoing professional development is challenging. Soft skills development can be hindered by limited access to training programs. Thus, the need to predict the relationship between school leaders' soft skills and sustainable administrative effectiveness.

This study aims to model correlation between the soft skills exhibited by school principals and the sustained effectiveness of their administrative methods. The following are the objectives that guides this study: i) To analyze the relationship between critical thinking skills and principals' SAE; ii) To examine the role of empathy skills in enhancing principals' SAE; iii) To investigate the specific influence of communication skills on the SAE of school principals; iv) To assess the significance of adaptability skills in relation to the SAE of school principals; and v) To investigate the role of leadership skills in shaping principals' SAE. Further, the following are the research hypotheses:

−   First hypotheses (H1)
i)   Null hypothesis (H0): Soft skills have no significant direct effect on secondary school principals' SAE
ii)   Alternative hypothesis (H1): Soft skills have a significant direct effect on secondary school principals' SAE.
−   Second hypotheses (H2)
i)   Null hypothesis (H0): Soft skills have no significant indirect effect on secondary school principals' SAE
ii)   Alternative hypothesis (H1): Soft skills have a significant indirect effect on secondary school principals' SAE.

2.   LITERATURE REVIEW
2.1.   Theoretical Framework

A theoretical framework for leadership soft skills in schools typically involves integrating various theories and concepts to understand and improve the development of leadership qualities that promotes administrative effectiveness in school. Transformational leadership theory suggests that effective school leaders inspire and motivate their team by setting a positive example, fostering a shared vision, and promoting innovation [46]. Soft skills like critical thinking, empathy, communication, and adaptability are essential for transformational leaders. Transformational leadership theory (TLT) is an approach to leadership that promotes personal and social change. In its ideal form, it creates valuable and positive change in the followers, with the end goal of developing followers into leaders. TLT promotes a style of guidance that emphasizes motivating teams, creating a vision, and encouraging them to fulfil it [47], [48]. Originally introduced by Burns [49], TLT has demonstrated its ability to dramatically improve the work environment by addressing follower needs [50]. Several characteristics have been associated with transformational leaders in the literature, such as visionary, empowering, social, passionate, and innovative [50]. According to Bass [51] and George [50], TL traits can be categorized into four dimensions: idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation. TLT is a popular approach to leadership that emphasizes the importance of school principals' soft skills in inspiring and motivating teachers and students. Soft skills, also known as interpersonal or people skills, play a significant role in the practice of transformational leadership. Thus, this study adopted TLT in modelling principals' soft skills with SAE. For school principals to employ soft skills to achieve SAE, they have to be transformational in their leadership approach. Transformational principals use their soft skills to inspire and motivate their followers. They do this by articulating a compelling vision, building trust, and effectively communicating with their team. Skills like effective communication, active listening, empathy, and persuasion are critical in inspiring and motivating subordinates to achieve success. Therefore, school principals could attain SAE by demonstrating traits like critical thinking, empathy, good communication approach, adaptability, and leadership in motivating and inspire staff and students to achieve educational goals.

2.2.   Principals' soft skills

Soft skills play a crucial part in empowering a school principal to create a positive school climate, foster collaboration among stakeholders in the education process, and ultimately enhance the quality of instruction provided by their educational institution. Soft skills are a set of personal attributes, behavior patterns, and communication skills that enable school leaders to interact effectively and harmoniously with others [21], [52], [53]. The importance of soft skills can be seen in many aspects of life, including relationships, work settings, and social interactions. Soft skills are more general and transferrable across different fields than hard skills, which are technical and job-specific. In addition to communication skills, teamwork, problem-solving skills, adaptability, emotional intelligence, leadership abilities, conflict resolution abilities, time management skills, critical thinking skills, decision-making, time management, resilience, networking, and cultural competence, innovative skills, empathy skills, and creativity skills, they encompass diverse qualities[18], [21], [22], [45], [52], [54]. Thus, this study examined principals' soft skills such as critical thinking, empathy, communication, adaptation and innovation, and leadership skills.

School principals actively participate in continuous professional growth and enhancement of their skills to thrive in their positions and effectively contribute to the overall effectiveness of their educational

institutions [55], [56]. The development of soft skills are essential for the proficient implementation of empathetic leadership, conflict resolution, and the creation of a supportive educational environment [55], [57]. Principals' soft skills in schools are not only beneficial for the day-to-day management but also for the long-term success and growth of educational institutions. Thus, principals' soft skills will promote a positive school culture, improved student outcomes, and a nurturing environment for both staff and students. The soft skills possessed by school principals cover a range of non-technical proficiencies, interpersonal aptitudes, and emotional competencies. These talents enable them to effectively lead and manage their educational institutions in post digital era [58], [59]. According to various studies [6], [60], [61], it is imperative for school principals to possess a range of essential soft skills. Soft skills include critical thinking, emotional intelligence (EI), effective communication, adaptability, conflict resolution, team building, empathy, decision-making, problem-solving, time management, resilience, networking, and cultural competence.

Critical thinking is a fundamental skill for effective leadership as it enables principals to make informed choices and adapt to changing situations to achieve academic excellence in their schools. Critical thinking capacity will assist school principals to analyze, evaluate, and synthesize information to make well-informed decisions or solve complex problems. It involves assessing information objectively, considering various perspectives, and making decisions based on evidence and rationality [16]. Principals with a heightened level of c exhibit proficiency in accurately recognizing, comprehending, and controlling their own emotions, as well as perceiving and overseeing the emotions of others [11], [40], [62]. Principals with critical thinking skills are expected to be empathy in their relationship with teachers and students to promote successful school.

Leadership empathy is a critical trait for school leaders who aim to create a positive and productive work environment and build strong, motivated teams. Principals' ability to provide an inclusive and conducive learning environment is critical to achieve sustainable academic performance. An emphatic school principal is a leader understand and address the emotions needs of team members while still maintaining effective leadership and decision-making. Empathetic school principals typically exhibit qualities such as active listening, understanding, compassion, and emotional intelligence [63], [64]. Effective communication is a key aspect of leadership empathy. Leaders should create an open and safe space for team members to express their thoughts and feelings. Also, empathetic principals often consider the impact of their decisions on their team members and strive to make choices that take their concerns into account. Principals' ability to communicate school vision to their subordinates will promote effective and sustainable learning outcome. Since empathy is a crucial component of effective leadership, as it helps build trust, improve communication, and create a positive work environment, effective communication is key in achieving sustainable school leadership.

Leadership communication skills play a crucial role in schools to promote effective decision-making, trust, motivation and inspiration, conflict resolution, parental involvement, positive school culture and teachers' professional development [13], [47], [65], [66]. Therefore, leadership communication skills are essential for creating a positive school environment, fostering collaboration, and ensuring that the school's mission and goals are effectively communicated and achieved. Effective communication can help school principals inspire, guide, and engage their school community towards success [48], [67]. The role of effective and transparent communication is of utmost importance in the operational dynamics of school principals. Effective communication of vision, objectives, and feedback to educators, staff members, students, and parents is of utmost importance. The cultivation of effective communication skill is necessary in order to foster collaboration among team members and facilitate the establishment of shared understanding [68], [69].

In order to adequately respond to the evolving requirements, school principals must exhibit flexibility and a readiness to adopt innovative concepts, technology, and instructional approaches [59], [70]. Principals are often faced with the responsibility of effectively addressing and resolving conflicts that may occur within their staff, student body, or parent community [7], [71]. The acquisition of soft skills related to conflict resolution empowers school principals to address issues in a manner that is characterized by constructive problem-solving and collaborative efforts. The development and effective management of cohesive teams play a pivotal role in the attainment of educational goals. According to previous study [55], principals who show team-building abilities demonstrate the capacity to successfully bring together diverse groups of individuals, promoting a sense of unity and cooperation in the pursuit of a common goal.

It is crucial for school principals to demonstrate a thorough comprehension and conscientious recognition of the many viewpoints and feelings held by all stakeholders, including students, parents, and staff members. The fostering of empathy has a significant role in fostering a school environment that is marked by assistance and inclusiveness [72], [73]. The soft skills associated with decision-making involve the capacity to make educated, fair, and timely decisions. Principals can augment their capacity to tackle challenges, identify root causes, and implement suitable remedies to improve the overall performance and environment of the school by acquiring proficient problem-solving skills [56]. The establishment and cultivation of professional ties within the education community and other pertinent networks is of utmost

significance. Principals that exhibit remarkable networking abilities has the capacity to efficiently leverage diverse resources, obtain vital support, and access a wide range of opportunities that can significantly enhance the prospects of their particular educational institutions. In educational environments characterized by a wide range of diversity, it is crucial for administrators to exhibit cultural competence. This entails the capacity to understand and value the diverse cultures, languages, and backgrounds that exist within the school community [56], [74]–[76]. A strong set of soft skills is essential for school leaders' personal and professional success. In addition to establishing strong relationships and communicating effectively, school leaders must also be able to resolve conflicts and adapt to changing situations. School leaders can develop soft skills by reading books, attending workshops, taking online courses, seeking feedback, and practicing mindfulness.

2.3. Sustainable administrative effectiveness in secondary schools

The notion of SAE in educational institutions refers to the capacity of schools to consistently and efficiently achieve their goals and objectives over an extended period of time, while also maintaining their ability to adapt to changing circumstances and challenges. The concept of SAE pertains to the long-term viability and resilience of school administration practices and leadership [77]. The key components and determinants that contribute to the understanding and achievement of SAE in educational institutions include educational outcomes, efficient allocation of resources, effective leadership and governance, active involvement of stakeholders, data-driven decision-making, curriculum and instructional practices, adaptability and innovation, inclusivity and equity, continuous improvement, community collaborations, fiscal responsibility, and long-term planning [13], [78], [79].

The fundamental basis for achieving sustainable administrative success is in the prioritization of educational accomplishments. Educational institutions must consistently strive to improve student learning, academic achievement, and overall welfare. Sustainable administrative success comprises a range of measures, including academic performance, graduation rates, and student satisfaction levels. Efficient resource utilization is a critical factor in attaining sustainability [56], [80]. The appropriate allocation of financial, human, and physical resources is crucial for educational institutions to adequately support both educational programs and administrative responsibilities [81]. It thus entails that the processes of financial resource allocation, human resource management, and infrastructure supervision. The existence of strong leadership and governance systems is essential. The individuals occupying the roles of school principals wield substantial authority in shaping the direction, policies, and priorities that impact the effectiveness of administrative functions [3], [82], [83].

To secure adequate support for school projects, it is crucial for administrators to actively establish beneficial ties and foster collaboration among stakeholders. The attainment of SAE relies on the application of data-driven decision-making [27], [84], [85]. It is imperative for school principals to actively participate in the methodical gathering, examination, and application of data to identify areas of strength and weakness, monitor progress, and support improvements [86], [87].

Sustainable administrative effectiveness involves key elements such as the alignment of curriculum with educational standards, the effectiveness of teaching methods, and the provision of professional development opportunities for educators [88], [89]. Educational institutions that are sustainable demonstrate attributes of adaptation and creativity [33], [90]. Effective school administration demonstrates the ability to effectively respond and accommodate changes in the domains of education, technology, and societal needs [91], [92]. This may involve the modification of educational curricula, the integration of technological tools, and the implementation of innovative teaching methods. The promotion of sustainability relies on the essential pillar of establishing equity in education [93], [94]. School principals have a crucial responsibility to engage in endeavors that address disparities in access, resources, and opportunities, with the goal of cultivating equal prospects for academic success among all students [95].

2.4. Conceptual framework

Figure 1 shows the conceptual model that indicates the linkage that exists between the principals' soft skills (critical thinking, empathy, communication, adoption, and leadership skills) and SAE. As indicated in Figure 1, sustainable administrative effectiveness is the main outcome or dependent variable of the study. It represents the long-term success and performance of school principals in their administrative roles. The independent variable is principal's soft skills. Soft skills encompass various interpersonal and intrapersonal abilities possessed by school principals. Subcategories of soft skills may include critical thinking skills, empathy, communication skills, adaptation and innovation, and leadership. Leadership style and practices can mediate the relationship between soft skills and SAE. Principals' leadership approaches may affect how they apply their soft skills in their roles [96]. Based on TLT adopted framework for the study, effective leadership typically consists of strong soft skills that allow leaders to motivate and inspire their subordinates. A principal's ability to prepare critically, listen to criticism, and incorporate the thoughts and contributions of their team are also usually essential elements of effective leadership.
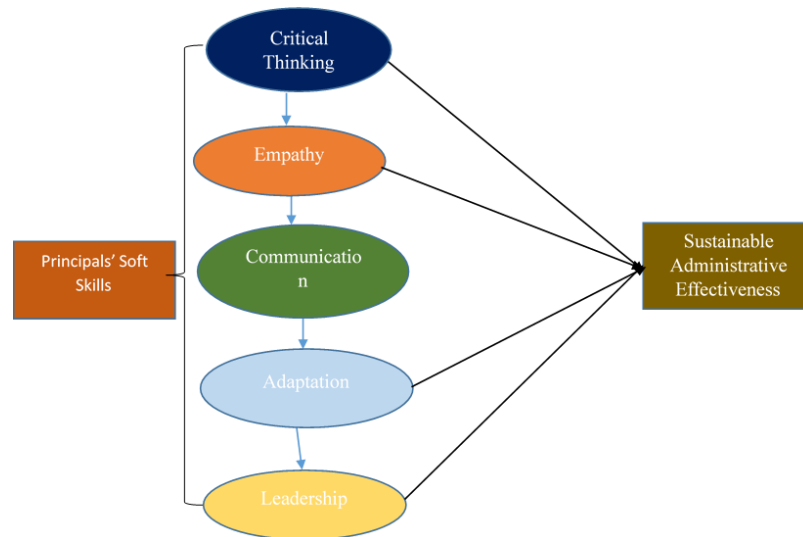
Figure 1. Conceptual framework

Principals often face demanding schedules. The possession of strong time management skills allows individuals to efficiently allocate their time, effectively meet predetermined deadlines, and maintain a balanced integration of their work and personal responsibilities. The discipline of educational leadership is distinguished by intrinsic stress and obstacles [97]. The attribute of resilience enables principals to effectively overcome failures, maintain their motivation, and demonstrate leadership with a positive attitude [15], [98], [99]. The development of soft skills holds significant significance in fostering positive interpersonal relationships, establishing a conducive educational setting, and achieving long-lasting SAE [56]. Principals' soft skills (critical thinking, empathy, communication, adaptation and innovation, and leadership) play a crucial role in SAE. School principals with strong soft skills can better connect with their teams, foster a positive work environment, and drive organizational success and achieve SAE. Critical thinking is often considered a strong predictor of soft skills, and there is substantial research and literature supporting this relationship [100]–[103]. Soft skills, also known as interpersonal or people skills, encompass a wide range of attributes such as empathy, communication, problem-solving, adaptability, teamwork, emotional intelligence and leadership. Critical thinking, on the other hand, involves the ability to analyze information, evaluate arguments, and make reasoned judgments [104]. Therefore, principals' critical thinking skills as a form of soft skills is expected to influence other soft skills directly or indirectly in promoting SAE.

Critical thinking is the ability to think logically, analyze information, and evaluate situations objectively, while administrative effectiveness refers to the proficiency with which a school principal manages and accomplishes tasks or goals within an administrative role. Critical thinking plays a crucial role in decision-making within administrative activities [13], [100]. School principals often need to evaluate multiple options, consider the implications of their choices, and make informed decisions [105]. Critical thinking helps school leaders in assessing the available data, identifying potential risks, and choosing the best course of action. The ability to think critically has a direct impact on the decision-making strategies of school leaders [105]. Also, critical thinking abilities of leader and effective decision making are statistically significantly correlated [106]. Therefore, critical thinking is an essential skill for SAE. It enhances decision-making, problem-solving, adaptability, communication, resource allocation, continuous improvement, performance evaluation, and risk management within administrative roles. Developing and nurturing critical thinking abilities can contribute significantly to the success of school principals and their schools. Thus, the study examines direct and indirect relationship between critical thinking and principals' SAE.

In addition, empathy is often seen as a valuable trait for effective leadership. Leaders who can empathize with their subordinates are better equipped to understand their concerns, motivations, and needs. This can lead to better communication, increased morale, and improved teamwork. The empathetic dispositions of school principals can have a favorable impact on SAE, leading to enhanced performance [107]. Some studies suggest that school leaders who exhibit empathy tend to have more engaged and satisfied employees, which can lead to higher performance and productivity [38], [41], [108]–[110]. However, there may be a balance to strike, as overly empathetic leaders might struggle to make tough decisions when necessary. Research has shown that leaders who exhibit much higher levels of empathy seem to be more

effective [38], [110]. Hence, empathy can be a valuable trait in SAE, particularly in leadership and public administration, but its impact on SAE may depend on various factors. Balancing empathy with other leadership and management skills is crucial to achieving SAE. Hence, direct and indirect relationship between empathy skills in relation to the SAE of school principals was examined. Principals make an effort to put themselves in their team members' shoes. Hence, school principals with empathy traits tend to promote effective communication that is the strength of effective school administration.

Furthermore, communication is an integral component of SAE. Effective communication promotes information flow, coordination, decision-making, conflict resolution, feedback, goal alignment, employee engagement, and transparency. These factors collectively contribute to the efficient and successful functioning of administrative functions within a school. Facilitating relationships and creating an atmosphere that supports the internal growth of the organization are the two main functions of communication as an administrative tool [111]. Research has demonstrated a strong correlation between administrative effectiveness and communication abilities [112]–[114]. Communication helps ensure that administrative goals align with the broader objectives of a school. Hence, communication skills of principals play a crucial role in SAE.

Moreover, innovation can be a means of adapting to change, and the ability to adapt is necessary for a school to effectively implement innovations. Principals' adaptive ability can enhance SAE by introducing new and more efficient methods, technologies, and approaches to administrative tasks [115]. Adaptation skills can foster innovation and creativity in administrative processes. Therefore, adaptation skills play a vital role in SAE. School principals who can adapt to changing situations, solve problems, communicate effectively, and make informed decisions are better positioned to succeed in their roles and contribute to the success of their schools. Adaptation and innovation do not have direct or indirect influence on school principals SAE.

Lastly, leadership skills and administrative effectiveness are closely related in the context of school management. Effective leadership is a key factor in achieving SAE. Effective leaders set goals, articulate a mission, and create a strategic plan [56], [116], [117]. Administrative effectiveness is then achieved by aligning the administrative processes and resources with this vision. Leadership often includes setting expectations and holding individuals and teams accountable for their performance. This accountability helps maintain standards and ensures that administrative tasks are carried out efficiently [13], [118]. Thus, leadership skills play a pivotal role in influencing administrative effectiveness. Strong leadership can set the tone, create a positive work environment, and ensure that administrative tasks are carried out efficiently and in alignment with the school's goals and objectives. Effective leadership and administrative effectiveness go hand in hand, each reinforcing the other for overall school success. Therefore, the role of leadership skills in shaping principals' SAE was investigated.

3.   METHOD

Research methodologies employing quantitative approach [119] correlation of non-experimental design was used to identify direct and indirect relationship between the soft skills and school principals' SAE. The population used in this study were all 1,120 and 740 instructors from Hardap and Omaheke regions of Namibia. A sample of 450 teachers were stratified and randomly selected from Hardap and Omaheke regions. Of the 450 copies of questionnaire administered, only 432 copies the questionnaire were returned.

3.1.   Study area

The regions visited were the Hardap and Omaheke regions. Hardap contains the municipality of Mariental (Capital), the towns of Rehoboth and Aranos, and the self-governed villages of Gibeon, Gochas, Kalkrand, Stampriet, and Maltahöhe. It is home to Hardap Dam. Hardap stretches the entire width of Namibia, from the Atlantic Ocean in the west to Namibia's eastern national border. It covers 109 659 km^2. The region's economy is driven by an agricultural sector dependent on livestock, crop production, ostriches and game. The Hardap Region has great potential for tourism due to the spectacular Namib Desert, which has dunes near Sossusvlei regarded as being the highest in the world.

Omaheke is the least populated region. Its capital is Gobabis. It lies in eastern Namibia on the border with Botswana and is the western extension of the Kalahari Desert. Omaheke lies in the eastern part of Namibia. In terms of geographical area, it covers 84,742 km^2, comprising of Gobabis, Otjinene, Witvlei, Leonardville, Aminuis, Buitepos, Drimiopsis, Epukiro Pos 3, Omitara, Okazapamba, Okovimburi, and Onderombapa. The sample units are teachers from public secondary schools in both regions. Omaheke, Namibia's cattle country district, has adopted a crop-farming diversification policy, and many people now refer to it as "the cattle and agro region." Omaheke champions beef production, emphasizing breeds that capitalize on maximum beef output.

3.2. The process of generating items

A comprehensive examination of the literature was conducted in order to identify pertinent issues, vocabulary, items, and scales from previous research that may be utilized to evaluate the many aspects of a principal's soft skills. The questionnaire was designed based on information derived from existing literature in order to gain a deeper understanding of the two variables (school principals' soft skills and SAE). The questionnaires, school principals' soft skills questionnaire (SPSSQ) and sustainable administrative effectiveness questionnaire (SAEQ), were adapted from existing literature. The SPSSQ revealed five distinct components associated with the soft skills of principals, namely communication, empathy, critical thinking, adaptability, and leadership. This list has 50 items that pertain to concepts that are deemed crucial and encompass the theoretical aspects of soft skills possessed by principals [6], [18], [22], [120]–[122]. The scale for measuring SAE consisted of a total of 20 items adapted from [123]. The survey consisted of 50 statements regarding the principal's soft skills. Respondents were instructed to indicate their degree of agreement with each statement using a five-point Likert scale (1=Neutral, 2=Strongly disagree, 3=Disagree, 4=Agree, and 5=Strongly agree). Again, the study employed a five-point Likert scale to assess the SAE, consisting of a total of 20 items.

During the process of item development, the researchers formulated statements that specifically addressed the two variables. We then sought input from experts in educational management, measurement and evaluation, as well as other research professionals, in order to evaluate the comprehensiveness and validity of the items in terms of ambiguity, clarity, and wording. Participants expressed their level of agreement or disagreement with each item on the Likert scale, which consisted of five points. Table 1 presents reliability coefficient scores of the instruments' constructs. Table 1 shows the Cronbach alpha reliability coefficients of the instruments used for the study; the result revealed that most constructs are highly reliable except for the empathy construct, which is good [124]–[126].

Table 1. Reliability coefficient of the instruments used for the study

| Instrument	Cronbach alpha coefficient	Remark
Communication	0.887	High
Empathy	0.703	Good
Critical thinking	0.913	High
Adaptability and innovation	0.947	High
Leadership skill	0.938	High
SAE	0.950	High

3.3. Analytical procedure

Path analytical procedure of structural equation modeling (SEM) was used to analyze the data collected for the study. This entails building the hypothesized model, model validation and estimation of model parameters to determine the direct, indirect and total effect of exogenous (cause something but nothing can cause them e.g. gender) and endogenous variables on the dependent variable.

3.4. Hypothesized model

The study hypothesized that the study variables would follow the specified pathways in the model in Figure 2. From the figure, it could be observed that principals' soft skills in terms of critical thinking could influence the manner of principals' empathy and principals' empathy could go a long way to influence it communication skills vis-à-vis principals' adaptation and leadership, and consequently influence principals' SAE. Since critical thinking (X1) is an exogenous variable, it can directly influence on SAE and it can also effect influence indirectly by passing through the other variable e.g. empathy (X2), communication (X3), adaption (X4), and leadership (X5). Empathy (X2), communication (X3), adaption (X4), and leadership (X5) are endogenous variable, they have influence on the principals' SAE through other variable. This is indirect effect. Principals' critical thinking skills can effect their empathy, which will effect communication, which will effect adaptation and innovation and in turn will effect leadership skills. The hypothesized model was tested at 0.05 level of significant and the result was presented in Table 1.

The result from the Table 2 shows that it is only critical thinking ($X_6 \leftarrow X_1$) that has no significant causal relationship with principals' SAE. However, the indirect causal relationship of empathy (X_2) and adaptation and innovation (X_4) on principals' SAE (X_6) were not significant. The paths that are above 0.05 are considered not significant and were removed. This this case path $X_5 \leftarrow X_2$, $X_5 \leftarrow X_4$, and $X_6 \leftarrow X_1$ were removed. Based on the three non-significant paths, the model in Figure 2 was trimmed in order to arrive at a more parsimonious model by removing the non-significant path. The validated model was presented in Figure 3.
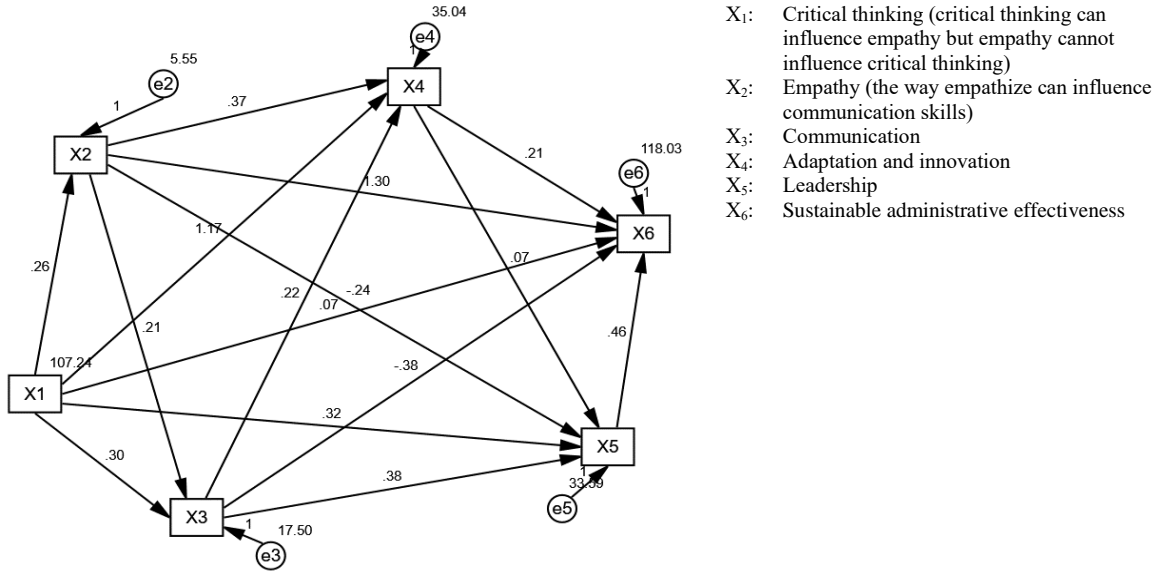
X₁: Critical thinking (critical thinking can influence empathy but empathy cannot influence critical thinking)
X₂: Empathy (the way empathize can influence communication skills)
X₃: Communication
X₄: Adaptation and innovation
X₅: Leadership
X₆: Sustainable administrative effectiveness

Figure 2. Hypothesized model for the relationship between principals' soft skills and SAE

Table 2. Causal relationship (direct effects) between principals' soft skills and SAE

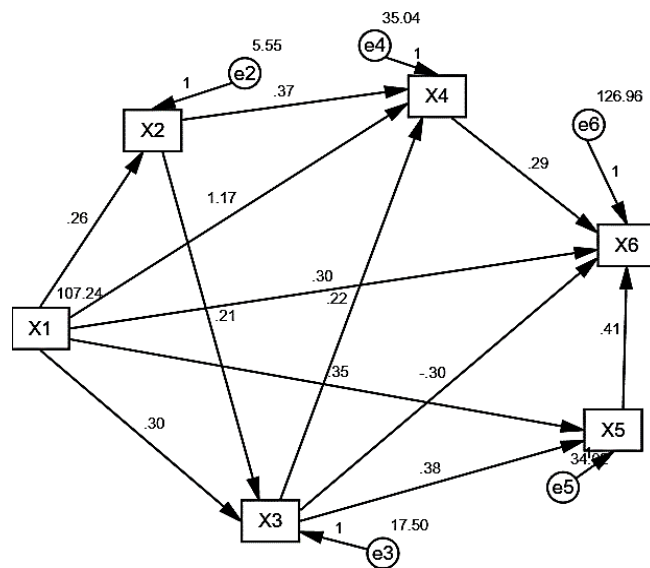| Path			Estimate	S.E.	C.R.	P
X2	<---	X1	.263	.012	21.559	***
X3	<---	X1	.298	.033	8.976	***
X3	<---	X2	.208	.095	2.180	.029
X4	<---	X2	.371	.136	2.732	.006
X4	<---	X1	1.169	.052	22.440	***
X4	<---	X3	.218	.076	2.869	.004
X5	<---	X3	.383	.075	5.091	***
X5	<---	X1	.323	.080	4.039	***
X5	<---	X2	-.243	.134	-1.810	.070
X5	<---	X4	.072	.053	1.365	.172
X6	<---	X5	.463	.101	4.603	***
X6	<---	X4	.210	.099	2.123	.034
X6	<---	X1	.065	.153	.425	.671
X6	<---	X2	1.297	.253	5.123	***
X6	<---	X3	-.382	.146	-2.613	.009

Figure 3. Validated model for relationship between principal's soft skills and SAE

The validated model contains the model parameters including errors of estimation, the fit indexes of the model is presented in Table 3. The table presents the fit indexes estimated for the two models to check whether the pattern of response in the data fits into the pattern specified by the model. The Chi-square value of the hypothesized model is $\chi^2(0)=0.00$, $p<0.05$. This indicates that the value was not only a computer but also significant. The values of other fit indicators were also poor, which shows that the model is unfit. The non-significant Chi-square of the validated model indicates that the difference between the hypothesized model and the data is insignificant. Hence, the validated model is fit. This inference is made based on the affinity goodness of fit estimate. Normed fit index (NFI)=0.90<0.952 and comparative fit index (CFI)=0.999>0.90. According to Chau [127], a CFI equal to or greater than 0.90 is acceptable, indicating that 90% of the covariation in the data can be reproduced by the proposed model. Thus, the validated model can reproduce 99.9% of the covariation in the data. Therefore, inference could be made that soft skills account for 99.9% of total changes in SAE. The direct effect of variables in the model on SAE is presented in Table 3.

Table 3. Fit indexes of validated model

Model	Chi Square (χ^2)	df	Sig	CFI	NFI	GFI	RMSEA
Hypothesized	0.00	0	0.00	0.00	0.00	0.341	0.543
Validated	4.668	3	0.198	0.999	0.997	0.996	0.040

4. RESULTS

4.1. Hypothesis 1: soft skills have no significant direct effect on secondary school principals' SAE

Table 4 presents the direct effects of soft skills on the SAE. The results in Table 4 show that critical thinking (X_1) has no significant causal relationship ($\beta=0.065$, $p>0.05$) with SAE (X_6), which implies that a unit standard deviation in critical thinking, which accounted for 0.065 change in SAE of the principal is not significant enough to produce a result. However, empathy (X_2) has a significant relationship ($\beta=1.297$, $p<0.05$) with SAE (X_6). The result further revealed that the coefficient of the causal relationship of empathy is more than one. A phenomenon termed statistical suppression. This implies that empathy could go a long way to confer SAE irrespective of the status of other principals' soft skills. Moreover, the result revealed further that communication skills (X_3) have a negative significant relationship ($\beta=-.382$, $p<0.05$) with SAE. This implies that a unit standard deviation change in communication skills accounted for a -0.382 decrease in SAE. This indicates that communication skills if not judiciously used, can potentially decrease principals' SAE. The direct causal effects of adaptation and innovation (X_4) ($\beta=.210$, $p<0.05$) and leadership (X_5) ($\beta=.463$, $p<0.05$) on SAE were also significant.

Table 4. Direct effects of principals' soft skills on SAE

Path			Estimate	S.E.	C.R.	P
X6	<---	X5	.463	.101	4.603	***
X6	<---	X4	.210	.099	2.123	.034
X6	<---	X1	.065	.153	.425	.671
X6	<---	X2	1.297	.253	5.123	***
X6	<---	X3	-.382	.146	-2.613	.009

4.2. Hypothesis 2: soft skills have no significant direct effect on secondary school principal administrative effectiveness

The indirect effect is a possible pathway of effect from a variable to a dependent variable (SAE), as shown in Table 5. The table shows the different causal effects of the endogenous and the exogenous variables (soft skills) on the dependent variable (SAE). The result revealed that critical thinking (X_1) has no significant direct effect (relationship), as in Table 3, but could influence SAE indirectly through other variables in the model. The result revealed that critical thinking has the highest indirect effect ($\beta=0.772$), which implies that critical thinking could influence SAE through empathy (X_2), communication skills (X_3), adaptability (X_4) and then leadership (X_5). The indirect effect of communication skills is ($\beta=0.234$), which is higher than empathy. This implies that communication skills could significantly and indirectly influence sustainable administrative school through adaptability and leadership. Empathy has the lowest indirect effect ($\beta=0.060$), which shows that empathy is effective and valuable when the principal directly expresses it in the course of school administration.

Table 5. Direct, indirect, and total effect of principal's soft skills on SAE

Indirect (mediating relationship)		Direct	Indirect	Total
X1	➔➔➔➔X6	0.00	0.772	0.772
X2	➔➔➔➔X6	1.329	0.060	1.389
X3	➔➔➔X6	-0.33	0.234	-0.142
X4	➔➔X6	0.241	0.000	0.241
X5	➔X6	0.472	0.000	0.472

Furthermore, there are no indirect effects of adaptability (X4) and leadership (X5), indicating that a sustainable school administration demands a principal who will not act by proxy (pass through other person) or in retrospect (delaying what should be done today). The inference could be drawn from the result that the direct application of critical thinking may not result in sustainable school administration if it is not considered alongside other factors. And that school activities will go smoothly if the leadership is directly involved.

5. DISCUSSION

Table 4 indicates that critical thinking (X1) and SAE (X6) do not significantly correlate. This indicates that a unit standard deviation in critical thinking that takes into consideration the 0.065 variation in the SAE of the primary cannot be deemed significant enough to have an impact on the SAE. Thus, the hypothesis that critical thinking will directly promote SAE is rejected. The findings contradict the existing studies that the ability to think critically has a direct impact on the effective decision-making strategies of school leaders [106]. Additionally, the outcome showed that critical thinking had the strongest indirect effect, suggesting that critical thinking may affect SAE through the following channels: empathy (X2), communication skills (X3), adaptability (X4), and leadership (X5). The finding corroborates [13] that principals with a culture of critical thinking will promote innovation and sustainable leadership. Thus, the assumption that critical thinking will indirectly enhance SAE is accepted. Critical thinking helps school leaders assess the available data, identify potential risks, and choose the best action. The ability to think critically has a direct impact on the decision-making strategies of school leaders [105].

Similarly, SAE (X6) and empathy (X2) correlate significantly. The outcome also showed that empathy has a coefficient of more than one in the causal relationship. something is known as statistical suppression. This suggests that regardless of the state of other soft abilities of principals, empathy could go a long way towards conferring SAE. School principals' sympathetic personalities can positively affect SAE and improve performance [107]. Empathic school administrators may have happier, more engaged staff members, which may boost output and performance [38], [41], [108]–[110]. The statement that empathy skills will not promote SAE directly is rejected. Though empathy has the most negligible indirect impact, this indicates that empathy is valuable and practical when expressed directly by the principal in running the school. This supports the submission that a school climate characterized by support and inclusivity can be significantly enhanced by cultivating empathy [72], [73]. Thus, in achieving SAE, school principals are to possess with empathic abilities.

Furthermore, the outcome demonstrated a substantial inverse association between SAE and communication skills (X3). This suggests that a drop in SAE was explained by a unit standard deviation shift in communication abilities. This suggests that if communication skills are not employed carefully, they may reduce principals' sense of agency. The hypothesis that communication skills will directly significant influence principals' SAE is accepted. In order to achieve SAE, leadership communication skills are essential in schools [13], [47], [65], [66]. Studies have indicated a robust association between communication skills and administrative efficacy [112]–[114]. Effective communication is essential to ensuring that a school's administrative aims complement its overall objectives. Therefore, principals' communication abilities are quite important in SAE.

There was also a substantial direct causal relationship between SAE and of adaptation and innovation (X4). It implies that principals with adaptive and innovative skills will enhance SAE in schools. Thus, the hypothesis that adaptation and innovation will not directly relate to SAE is rejected. Principals' adaptive ability can enhance SAE by introducing new and more efficient methods, technologies, and approaches to administrative tasks [115]. As a result, adaptability abilities are essential to SAE. School principals are more likely to thrive in their positions and make a positive impact on their institutions when they possess these skills: problem-solving, communication, flexibility, and educated decision-making.

Consequently, there is a strong and direct correlation between leadership abilities (X5) and SAE. The assumption that leadership skills will not directly to SAE is therefore rejected. This implies that SAE will be enhanced with leadership skills. Therefore, one of the most important factors affecting administrative success is leadership ability. In the context of school management, administrative efficacy and leadership qualities are tightly correlated. To achieve SAE, effective leadership is essential. A strategy plan, goals, and a

mission statement are all developed by effective leaders [56], [116]. Proficient leadership has the ability to establish a favorable atmosphere, foster teamwork, and guarantee that administrative duties are completed effectively and in accordance with the educational institution's aims and objectives. As a result, leadership abilities influenced principals' SAE.

Therefore, all soft skills have direct relationship with SAE except critical thinking skills. This ultimately results in the achievement of SAE. The study conducted by [128] established a correlation between SAE and the soft skills possessed by principals. It was reported that the development of soft skills among school principals is associated with a decrease in the prevalence of organizational unfairness, ultimately resulting in enhanced administrative performance that is durable over time. The research indicated that certain soft skills contribute to the SAE of school principals, suggesting that investing in these skills has long-term benefits. The findings align with the TLT. By attending to follower needs, TLT has proven that it can significantly enhance the work environment [50]. Visionary, empowering, sociable, passionate, and innovative are some of the traits that have been linked to transformational leaders in the literature [50]. To motivate and inspire teachers and students, school principals must possess soft skills, according to the widely accepted theory of leadership (TLT) approach.

5.1. Findings implications

Schools and educational institutions can use the study's findings to inform the design of training programs for aspiring and current school principals to acquire the identified soft skills for SAE. Educational agencies can use the outcomes of this study to improve school principals' SAE. Also, in the recruitment and placement process of school principals, agencies can incorporate assessments of soft skills into the selection criteria and use the study's model for evaluating principal performance. Furthermore, principals and school administrators can directly apply the study's findings to improve their leadership effectiveness by developing their soft skills to create a more positive and sustainable effective administrative environment.

Sustainable administrative effectiveness, influenced by enhanced soft skills, can have a positive impact on students' learning outcomes over a period. Better critical thinking, empathy, communication, adaptability, and leadership can lead to improved students' engagement, academic achievement, and overall school climate. Moreover, schools can use the study's findings to foster better relationships with various stakeholders, including teachers, parents, and the community to promote a sustainable educational system. Effective soft skills will lead to more transparent and collaborative leadership that will produce performing schools. Policymakers in the education sector may consider incorporating the development of soft skills into educational leadership standards and guidelines to achieve sustainable educational goals. Lastly, educational associations and professional bodies can use the study model to design and promote professional development programs specifically focused on enhancing soft skills among school administrators to foster sustainable schools.

5.2. Limitations

The tools used to measure principals' soft skills and sustainable administrative effectiveness may have limitations, such as self-reporting bias or lack of cultural sensitivity. The accuracy of the findings is dependent on the reliability and validity of the instruments used. The study may establish a correlation between principal soft skills and SAE, but it may not prove causality. The research demonstrates an association but does not definitively establish that improving soft skills directly leads to enhanced administrative effectiveness. The study was conducted over a limited timeframe, which could affect the assessment of SAE. The long-term impact of improving soft skills might not be fully captured. Educational contexts can vary widely. The study may not account for all contextual factors that could influence the relationship between soft skills and SAE. The contextual differences may impact the applicability of the findings.

6.   CONCLUSION

This study examined how principals' soft skills relate directly and indirectly to sustainable administrative effectiveness (SAE). The participants were selected using stratified and random sampling techniques. A total of 432 teachers were administered the school principals' soft skills questionnaire (SPSSQ) and the sustainable administrative effectiveness questionnaire (SAEQ) were used. Principals' soft skills and their SAE showed a strong correlation. In other words, there is a direct correlation between SAE and empathy, communication, adaptation, and innovation. In contrast, critical thinking does not directly affect SAE but indirectly influences it through other factors. The study findings suggest that school administrators should invest in professional development programs to enhance principals' soft skills to achieve SAE.

Future research could employ longitudinal designs to track the development of soft skills in school principals over time and assess their long-term impact on administrative effectiveness. Comparative research across different cultural and educational settings could investigate the generalizability of findings and the impact of cultural factors on soft skills and administrative effectiveness. Researchers might conduct intervention studies to explore the effectiveness of training programs designed to enhance soft skills among school principals and measure their impact on SAE. Combining quantitative and qualitative methods can provide a more comprehensive understanding of the relationship between soft skills and administrative effectiveness. Future studies could use a combination of self-reporting, peer assessments, and objective performance measures to provide a more well-rounded evaluation of soft skills and administrative effectiveness. Comparing the soft skills and SAE of school principals with other educational leaders, such as superintendents or department heads, can provide insights into the unique role of principals. Lastly, further study can investigate how policy changes and educational leadership standards impact the development and assessment of soft skills in school principals.

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