EPH-International Journal of Business & Management Science

A CONCEPTUAL STUDY ON THE INTEGRATION OF NON-COGNITIVE SKILLS IN LEADERSHIP DEVELOPMENT

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Article History
Received:*2026-01-28*
Revised:*2026-04-05*
Accepted:*2026-06-15*
Published:*2026-06-30*

Abstract
The paper analyses the combination of non-cognitive skill features in leadership development, with special reference to emotional, behavioral and interpersonal skill aspects being the fundamental transmitter of proficient leadership. Being different from cognitive skills that mainly target thinking ability, non-cognitive skills including understanding emotions, talking, changing, and encouraging oneself largely determine the extent to which leaders will be effective in today's organizations. As a conceptual study, it maps out the territory of non-cognitive skills and leadership development frameworks through the prism of the literature review. It draws on major theoretical underpinnings such as Social Cognitive Theory, Emotional Intelligence Theory, and Behavioural and Psychological theories to shed light on the development and application of these skills. The research further discusses the influence of non-cognitive skills on leaders' performance with a focus on employee engagement, organizational success and working together. In addition, it presents big problems such as measurement issues, unawareness and organizational hinderances. At the same time, it recommends ways like training sessions, educational measures, and the application of technology and AI. The main points are that the incorporation of non-cognitive skills in leadership development is necessary for preparing leaders who are capable of change, coming back after difficulties, and performing well in the fast-changing world of today.

Keywords: *Non-cognitive skills; Leadership development; Emotional intelligence; Organizational performance; Social cognitive theory*

Vol. 12 Issue 6 (June 2026)
ISSN: 2208-2190 Pages- 90-101
DOI: https://doi.org/10.69980/thyvqv46

1. Introduction

Leadership has become a key element for success and sustainability of organizations due to the changing and competitive global environment. Today's enterprises need leaders who possess not only technical skills but also emotional intelligence, adaptability and the ability to manage human relations effectively. The growing realization that non-cognitive skills constitute the main components of leadership development is a result of this change. As opposed to cognitive skills which are quite concerned with the intellectual faculties such as reasoning and analytical thinking, non-cognitive skills are the ones that involve emotional, behavioural and social aspects and determine the ways individuals interact, make decisions and respond to challenges.

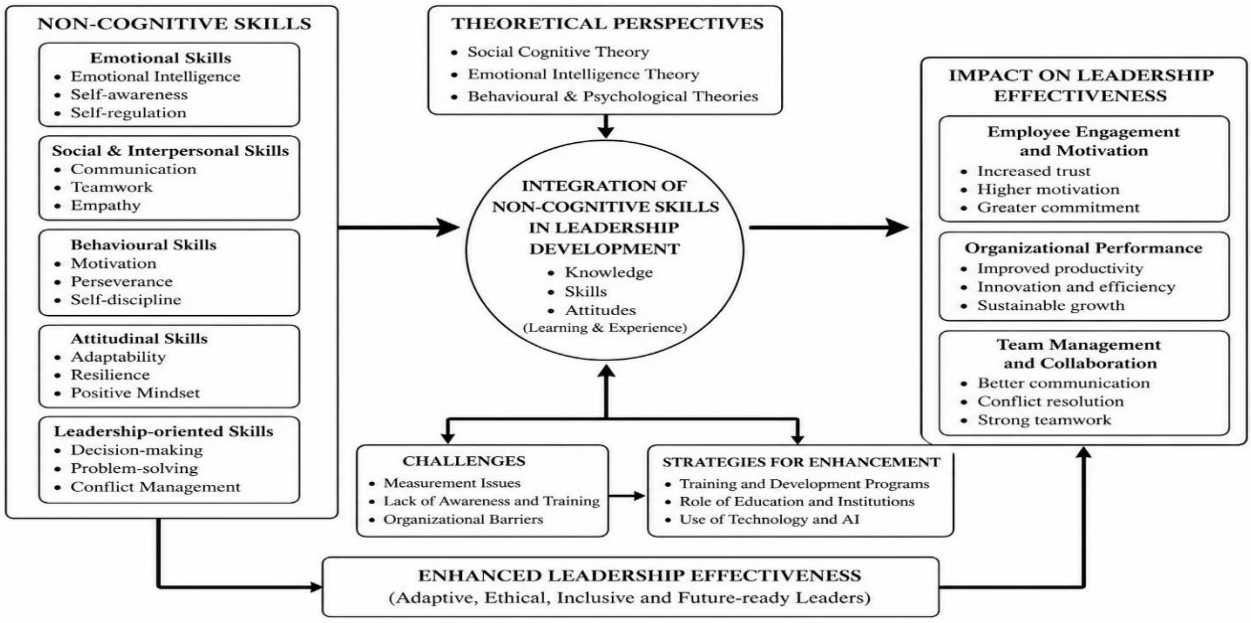


Figure 1: Conceptual Framework of Integration of Non-Cognitive Skills in Leadership Development and Its Impact on Leadership Effectiveness

Source: Own processing using Ms. Word

Along with cognitive abilities, the leadership behavior is also largely influenced by non-cognitive skills i.e. communication, motivation, resilience, emotional intelligence and teamwork. It is, in fact, through these skills that a leader is able to lead a team, resolve conflicts and establish a positive working environment. These days, the workplace keeps on undergoing changes and people find it hard to know what is coming next, that is why the value of such skills has tremendously grown. It is said that a leader having good non-cognitive skills is the one capable of working under stress, motivating the team and enhancing the overall functioning of the company.

The integration of non-cognitive skills into leadership development has therefore become a very significant area of research in management and organizational behavior. Different theoretical perspectives such as Social Cognitive Theory, Emotional Intelligence Theory and Behavioural and Psychological theories give the basis for understanding how these skills are developed and used in leadership situations. These frameworks reveal that leadership is not an inborn quality but a set of skills that can be learned through experience, environment and self-development.

Non-cognitive skills are very important, yet their development is hindered by a number of challenges such as measurement difficulties, low awareness and limited organized training opportunities. Nevertheless, progress in education, business practices and technology including AI are opening up possibilities for the improvement of these skills. As a result, this paper intends to theoretically examine the incorporation of non-cognitive skills in leadership development and their influence on leadership effectiveness in contemporary organizations.

1.1 Objectives of the Study

1. To understand the concept and significance of non-cognitive skills as a factor in leadership development.
2. To look at the different theories that back up the idea of non-cognitive skills development.
3. To investigate how non-cognitive skills contribute to leadership performance.
4. To find out what the difficulties are in acquiring non-cognitive skills in leadership situations.
5. To investigate tactics for mixing and boosting non-cognitive skills in leadership training.

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ISSN: 2208-2190 Pages- 90-101
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2. Concept of Non-Cognitive Skills

Non-cognitive skills are becoming more and more recognized as the most important factors identifying a person's effectiveness. The case is especially strong for these skills, as they characterize leaders and members of organizations, i.e. leadership and organizational contexts. While cognitive skills focus on mental powers such as reasoning and technical knowledge, non-cognitive skills concern character, actions and socio-emotional skills which influence how a person thinks, behaves and engages with others. These skills have a major impact on decision-making, flexibility and building relations with others, which is why they are important features of a well-rounded individual. They support cognitive faculties and, combined, these two are the main contributors to an individual's success and achievement in both personal and professional spheres (Cinque et al., 2021).

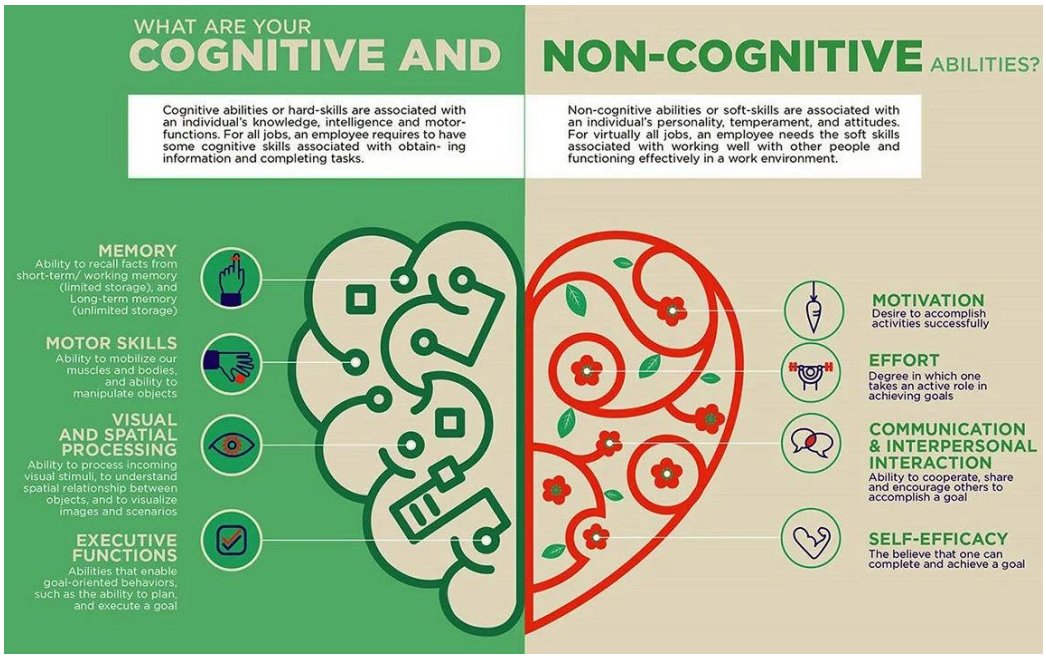


Figure 2: Importance Of Non-Cognitive Skills Development

Source: https://www.thecareerlounge.co/blog/how-to-develop-non-cognitive-skills

Non-cognitive skills cover a variety of behavioural, emotional and social competences which determine how capable a person is to adjust and work in different settings. They involve characteristics like drive, self-control, emotional literacy, talking and working with others. Differently from academic skills, non-cognitive skills are not arrived at by means of tests and show mainly through one's attitude, behaviour and the way one deals with others. Cinque et al. (2021) see these skills as a combination of one's attributes and behaviour patterns which play a role in one's performance and are a complement to cognitive abilities. Correspondingly, Nunoo et al. (2024) point out that non-cognitive skills have a big impact on one's career due to the fact that they determine one's work behaviour, flexibility and social interaction. Such skills help a person control his/her/its emotions, stay resilient, and maintain effective partnerships all very instrumental factors in the making of a leader.

There are many ways to group the aspects of non-cognitive abilities, however in general they can be thought of as being grouped together into a number of different but interrelated areas which assist or hinder the achievement of a person's personal and/or professional effectiveness. Emotional non-cognitive skills are represented by things like emotional intelligence, self-regulation and self-awareness. These skills enable a person to be aware of and manage their own emotions when faced with different circumstances. Social/interpersonal non-cognitive skills consist of skills such as communication, teamwork and empathy, among others, and enable a person to interact and work with others effectively. Behavioural non-cognitive skills include skills like perseverance, discipline and motivation that influence the way we conduct our work and achieve our goals. Attitudinal non-cognitive skills include resilience, adaptability and a positive attitude, which gives a person the ability to respond effectively to the changes and uncertainties they may encounter. Finally, leadership-oriented non-cognitive skills include decision-making, problem-solving and conflict-resolution, all of which are important to guide andlead a team to accomplish the collective organisational objectives. Evidence suggests that the combination of non-cognitive and cognitive skills substantially affects employability and workplace readiness, especially in dynamic job markets (Onsomu et al., 2025).

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Non-cognitive skills are no longer an extra in today's organizations but a necessity due to the changes in work environments that require workers to be flexible, collaborative and innovative. More and more organizations look at employees not only for their technical knowledge but also for their interpersonal and emotional skills. These abilities play a very important role in leadership development as they allow a person to articulate his/her viewpoints well, inspire others and resolve conflicts in a very positive manner. If a leader is good at non-cognitive skills, he/she will be able to gain trust, encourage teamwork and build a pleasant atmosphere in the company.

Moreover, non-cognitive capability contributes to an organisation's overall performance by enhancing teamwork, productivity and employee motivation. Employees who exhibit resilience, adaptability and excellent communication skills are better equipped to deal with workplace issues and develop good working relationships with others in the workplace. Additionally, non-cognitive capabilities contribute significantly to employability and career advancement, as individuals with strong non-cognitive skills will be able to better navigate the labour market and adapt to changes in the demands of their jobs (Nunoo et al., 2024). Finally, developing these skills can help transition individuals from education into employment by helping them develop the skills they need to respond to the challenges of a real work environment and meet the expectations of employers in the workforce (Onsomu et al., 2025). In summary, non-cognitive capabilities are critical components of both individual success and organisational success, and thus there is a growing need for their incorporation into leadership development.

3. Theoretical Perspectives of Non-Cognitive Skills

There are many theoretical perspectives supporting the concept of development of behavioral, attitudinal, and emotional skills needed for successful leadership, which is often referred to as non-cognitive skills. One of the most prominent theories in this field is the Social Cognitive Theory, which explains that individuals continuously develop behaviors as a result of the ongoing interactions between their own characteristics (personal), their behaviors (behaviors), and the environment they interact with from day to day (environment) (Kalogeratos et al., 2025). The Social Cognitive Theory teaches us that we learn from our experiences, but also learn from watching others; this very important learning process is called observational learning (Kalogeratos et al., 2025). The Social Cognitive Theory includes a key concept, called self-efficacy, which is defined as the individual's perception that he/she is capable of successfully completing the task at hand. Research indicates that leaders with high self-efficacy are often seen as having greater confidence, resilience, and the ability to manage numerous challenges in order to successfully lead in a complex world. In relation to leadership development, Social Cognitive Theory points to the importance of role models, social context, and experiential learning. Research has demonstrated that the use of social cognitive principles in conjunction with educational and leadership systems will improve psychological competence and civic responsibility, ultimately improving the development of non-cognitive skills (Wang & Wang, 2023).

The third important concept is the Theory of Emotional Intelligence, which highlights how emotions affect human behavior and lead to successful leadership by defining one's (the leader's) ability to identify, comprehend and manage their own emotional responses as well as those of others. Empathy, emotional control, social awareness and the ability to develop relationships are all important elements of Emotional Intelligence (Wang & Wang, 2023). These Emotional Intelligence Traits are of great significance in leader relationships, as they relate to interpersonal relationship development/management and team dynamics between team members. Leaders with high levels of Emotional Intelligence demonstrate a higher level of effectiveness in their ability to communicate, resolve conflicts (through communication), and make decisions, leading to the development of a positive work environment. Emotional Intelligence also plays an important role in ethical leadership and the management of diversity in teams. There are many studies that support the idea that Emotional Intelligence serves as an important integrative factor between cognitive and non-cognitive competencies and as such increases the overall effectiveness of leaders and organizations (Kalogeratos et al, 2025).

Besides behavioural and psychological theories, there are also some to help explain how non-cognitive skillsets develop and why they are important. Behavioural theories discuss only what you can see happen and tell us that we can learn, practice, and develop leadership skills through training, feedback, and experience, which supports the belief that we can develop non-cognitive skills like communication, teamwork, adaptability, and problem solving in the same incremental way as we can develop physical or cognitive skills. Psychological theories are more concerned about how our innate personality, motivation and internal processes affect our behaviours, and therefore traits (like emotional stability, openness, conscientiousness) have a strong correlation with being an effective leader. In addition, motivation theories help us understand how both internal (intrinsic) and external (extrinsic) factors impact your ability to perform, grow, and your potential as a leader. In addition, the way in which we develop non-cognitive skills is influenced by our environment and experiences when we

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are younger. Research has shown that the developmental years from mid-teen until our late teens (adulthood) are a time of great development for non-cognitive skills, and that both the psychological aspects of non-cognitive skills and our social environment (the setting) have a large impact on our ability to be an effective leader (Balica et al., n.d.).

Table 1: Theoretical Perspectives on Non-Cognitive Skills in Leadership Development

Theoretical Perspective	Key Idea / Focus	Non-Cognitive Skills Highlighted	Implications for Leadership Development	Supporting Studies
Social Cognitive Theory	Learning occurs through interaction between personal factors, behavior and environment; includes observational learning and self-efficacy	Self-efficacy, confidence, adaptability, observational learning, resilience	Leaders develop skills by observing role models, engaging in social environments and gaining experience; enhances confidence in decision-making and problem-solving	Kalogeratos et al. (2025); Wang & Wang (2023)
Emotional Intelligence Theory	Focuses on understanding and managing one's own emotions and those of others	Empathy, emotional regulation, social awareness, relationship management	Improves communication, conflict resolution, teamwork, ethical leadership and organizational climate	Wang & Wang (2023); Kalogeratos et al. (2025)
Behavioural Theory	Leadership behaviors are learned and reinforced through experience, training and feedback	Communication, teamwork, adaptability, problem-solving	Suggests leadership skills can be developed systematically through practice and reinforcement rather than being innate	Wang & Wang (2023)
Psychological Theories (Trait & Motivation)	Leadership is influenced by personality traits and internal motivation	Emotional stability, openness to experience, conscientiousness, motivation	Personality traits and motivation determine leadership potential, performance and personal growth	Wang & Wang (2023); Balica et al. (n.d.)
Developmental Perspective	Non-cognitive skills develop significantly during adolescence through social and	Emotional control, social skills, self-regulation	Early life experiences and education play a key role in shaping long-term leadership capabilities	Balica et al. (n.d.)

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	psychological influences			

To sum up, the various theoretical viewpoints give us a full understanding of non-cognitive skill(s) along with how they can be integrated into leadership development. By using Social Cognitive Theory we can understand how we learn via interaction/observation; with Emotional Intelligence Theory we understand how important emotional and interpersonal competencies are as well as other types of behaviour and psychology theories help understand the way in which people learn, their personality and motivation. They also all demonstrate that non-cognitive skill(s) are a vital, developable and will have a significant impact on the formation of effective, adaptable and emotionally competent leaders in today's organisations (Kalogeratos et al., 2025).

4. Leadership Development

Leadership development is a process whereby individuals improve their ability to lead, inspire and mentor others. These skills include both cognitive and non-cognitive competencies, allowing individuals to respond to and adapt to changing environments, make better decisions, and lead teams effectively. In recent years, leadership development has become even more important as organizations realize the value of soft skills, emotional intelligence and behavioral characteristics as driving forces for long-term success. Previous studies have shown that non-cognitive skills, such as perseverance, motivation and adaptability, are critical to developing leadership capabilities and overall performance (Sultanova, karas, 2024, Khine, 2016).

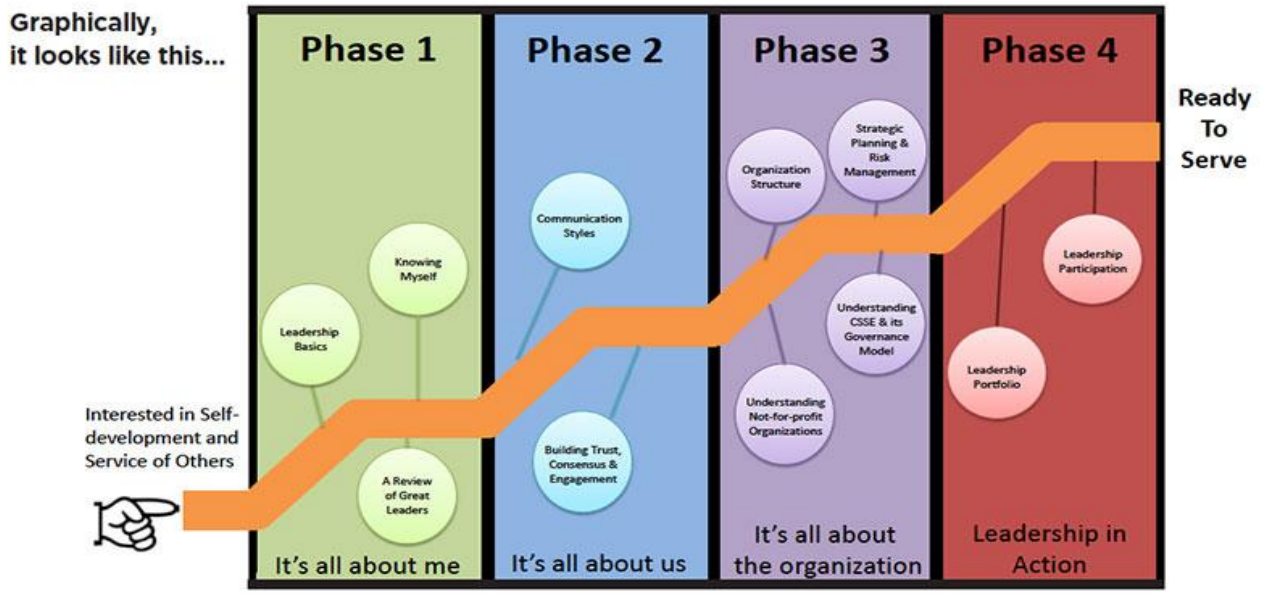


Figure 3: Leadership Development

Source: https://blogs.unb.ca/clf/2021/02/leadership-development.php

Leadership has been understood differently throughout the evolution of its concept - originally, as a trait-based concept, and more recently, as a dynamic and developmental concept. Leadership is considered as a collection of skills and behaviours that can be acquired, as opposed to being an inherent quality that only a few individuals possess. Leadership involves: influencing others; establishing a direction; motivating and supporting employees to achieve goals; and, ultimately, reaching organisational results. Effective leadership involves a balance of both task and people-oriented approaches. That is, effective leaders must create productive work outputs and maintain the health and wellness of their employees. Modern concepts of leadership also address the need for ethical behaviour when leading people; the need for inclusivity, and the need for leaders to effectively manage change in complex, unpredictable environments (Sultanova et al., 2024).

Organizational leadership development focuses on structured efforts to enhance leadership capacity across all levels. To achieve this organizations will invest in training programs, mentoring, coaching and experiential learning opportunities to develop their future leaders. All these initiatives aim not just to increase technical skills but also non-cognitive skills such as communication, emotional intelligence and teamwork. Integrating psychological and social means of learning into the design of leadership development programs has been determined to increase leadership effectiveness and the ability to adaptively lead. For example, by applying social cognitive theory within leadership training, learners can increase their leadership effectiveness through

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observational, interactive, and reflective forms of learning, which ultimately enhance their leadership potential (Zhang, 2023).
Effective leaders possess various competencies and traits that are not limited to technical ability. Examples of key competencies include communication skills, decision-making skills, problem-solving skills, emotional intelligence, adaptability, and relationship/interpersonal skills. Additionally, there are also many important non-cognitive skills that are utilized when managing teams and facing organizational challenges. Such non-cognitive skills include resilience, self-awareness, motivation, and empathy. These types of non-cognitive skills help a leader build strong relationships, encourage collaboration, and foster a positive work culture. Finally, by integrating both cognitive and non-cognitive capabilities a leader will be better equipped to handle ambiguous situations and further drive an organization's success (Sultanova et al., 2024).
In general, continuous Leadership development requires knowledge, skill and attitudes and organisations will achieve capable leaders who possess the ability to adapt, are emotionally intelligent and able to deal with the complexities of contemporary working environments (Zhang 2023). As such, holistic Development includes both Technical and Non-Technical Competence/Skill development as important to effective Leadership performance, and in addition to developing their Technical Competency/Skill, it is also important to develop Non-Cognitive Competencies/Skills to contribute toward being an effective Leader. An organisation's focus on developing its leadership from an overall perspective will help in developing capable future leaders for their organisations.

5. Integration of Non-Cognitive Skills in Leadership

The inclusion of emotional, behavioral, and interpersonal abilities in leadership is known as the incorporation of non-cognitive competencies into leadership practices to improve their effect, flexibility, and long-term organizational success. In today's environment, leadership is understood not only as possessing technical knowledge or cognitive ability; but also having the ability to manage emotions, communicate well, and react to rapidly changing or unpredictable situations. As digital transformation and artificial intelligence grow, the relevance of skills associated with the human experience will also increase in value because they support our engagement with and advancement of technological systems, and aid in decision-making and collaboration processes. Studies show that integrating cognitive and non-cognitive skills is necessary for developing leaders capable of contributing to economic development and sustaining organizations (Efthymiou, 2020; Yoshimori & Yoshimori, 2022).
As leaders develop high levels of emotional intelligence, they will be better able to build strong interpersonal relationships, develop their own self-awareness and foster an environment of emotional support within their workplaces. Furthermore, leaders with high levels of emotional intelligence will be more prepared to minimize workplace stress, resolve conflicts and motivate a team in a high-stress environment. This combined ability to analyze an ethical or balanced decision from both a rational and emotional point of view gives leaders with high emotional intelligence more tools to become effective leaders and produce high-performing organizations (García, 2016).
Effective leadership requires an array of qualities, one of which is excellent communication and interpersonal abilities, as well as help with integrating non-cognitive competencies (such as EQ) into the leaders' character. Communication encompasses both the ability to verbalize your thoughts; and also the ability to listen attentively; provide and receive effective feedback; and develop an understanding of diverse viewpoints. Interpersonal skills support/manage development of rapport, fostering trust between individuals, and participating in collaborative efforts with team members. Leaders with strong communication skills are able to persuade and motivate others; clarify misunderstandings; and foster/encourage a teams' ability to work together, particularly in multi-cultural or diverse organizations where clarity and empathy are critical to productive functioning. There is an increasing amount of evidence from research that points to the significance of non-cognitive skills, including communication, as having a positive influence on both educational and professional success; and subsequently improvement in the overall quality of leaders and organizations (Efthymiou, 2020)..
Problem-solving and decision-making are two of the core leadership functions that involve balancing both cognitive reasoning with effective non-cognitive skills. Leaders must be effective at analysing complex situations, evaluating all of their options and making a decision within a specific timeframe under sometimes uncertain conditions. Non-cognitive skills such as emotional stability, critical thinking/judgment, and other emotional functioning competencies improves the quality of these types of decisions. Additionally, problem-solving requires creativity, flexibility and the ability to stay calm under pressure. The integration of non-cognitive skills facilitates leaders' ability to manage uncertainty and react productively to challenges within their organisation. In the context of the digital economy, there are rapid changes that require leaders to rely on their cognitive/non-cognitive skill combination more than ever before. Therefore, successful leadership

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performance will be achieved through the harmony of both cognitive and non-cognitive skill set capabilities (Yoshimori & Yoshimori, 2022).

Non-cognitive skills play a vital role in helping leaders lead through change, uncertainty, or adversity; adapt to new circumstances; and deal with difficult situations. Adaptability is characterized as the ability to change one's behaviour, strategy, or approach in response to new conditions, while resilience is described as the ability to "bounce back" from failure and continue to perform during challenging times. Given the rapid rate at which change occurs in today's workplace (due to technical, economic, and social changes), it is clear that adaptability and resilience are essential for maintaining effective leadership over time. Leaders who have adapted well generally demonstrate a greater willingness to use innovative approaches and a commitment to continuous learning, whereas resilient leaders exhibit persistent behaviour, display emotional maturity, and maintain stability throughout the course of a crisis. Other non-cognitive factors, such as perseverance, flexibility, and self-regulation are all important contributors to the development of these qualities, making them critical for long-term success as a leader (García 2016; Efthymiou 2020).

6. Impact of Non-Cognitive Skills on Leadership Effectiveness

Non-cognitive skills have a significant impact on leadership effectiveness as they enhance emotional, behavioral and interpersonal capabilities that go beyond technical and cognitive knowledge. In modern organizations, leadership success is increasingly determined by how effectively leaders can engage employees, improve performance and manage teams through skills such as emotional intelligence, communication, motivation and adaptability. Research emphasizes that non-cognitive skills are essential for holistic development in higher education and leadership contexts, as they directly influence how individuals perform and interact in real-world environments (Alvarez-Huerta et al., 2022).

The effectiveness of leaders is influenced heavily by non-cognitive abilities (e.g., emotional, behavioral, and interpersonal skills). When combined with traditional cognitive and technical knowledge, non-cognitive skills form the basis for effective leadership as they contribute to a leader's ability to effectively engage their employees, develop their performance, and manage their teams. Competence in non-cognitive skills (e.g., emotional intelligence, communications, motivation and adaptability) is increasingly a measurement of a leader's success in modern organizations (i.e., as the leader's ability to meet these challenges correlates to how engaged their employees are, how well employees perform, and how efficiently the leader can manage his/her team).

There is an increasing amount of research that supports the importance of non-cognitive skills for a person's overall development, both for higher education and for leading others. Non-cognitive skills significantly impact how a person performs and interacts with others in the workplace (Alvarez-Huerta et al., 2022).

The development of non-cognitive skills in leaders has also been found to improve employee engagement and motivation within organizations. Leaders that are emotionally intelligent, empathetic and have excellent communication skills have a greater understanding of employees and can create a positive workplace environment. Such leaders build trust with their employees, which encourages them to participate more in achieving organizational goals. Many studies indicate that emotional intelligence is a key factor supporting transformational leadership; that is, emotional intelligence allows leaders to motivate and influence their followers effectively. Leaders who have developed strong emotional competencies are more successful in building employees' commitment to their organization and their job, which leads to a significantly increased level of employee engagement (Khajanchi, 2018).

The growth and implementation of non-cognitive abilities affect overall company performance directly. Leaders with skill sets like being flexible, solving problems, making decisions, and regulating emotions have the ability to overcome complex obstacles and create success for their organization. With these types of non-cognitive skills, leaders are able to enhance their strategic thought processes, innovate more effectively, and create efficient operation processes. The use of these types of non-cognitive skills also supports better implementation of leadership, which leads to more effective use of an institution's resources, and enhances long-term sustainability. Studies have shown that organizations focused on developing non-cognitive skills perform with greater output, better alignment of their resources, and greater overall results (Alvarez-Huerta et al., 2022).

Table 2: Impact of Non-Cognitive Skills on Leadership Effectiveness

Dimension of Impact	Key Non-Cognitive Skills Involved	Effect on Leadership Effectiveness	Organizational Outcomes	Supporting Studies
Emotional and Behavioral Enhancement	Emotional intelligence, adaptability,	Improves leaders' ability to manage emotions, behaviors	Better leadership performance in real-	Alvarez-Huerta et al. (2022)

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	communication, motivation	and interpersonal interactions beyond technical knowledge	world and dynamic environments	
Employee Engagement and Motivation	Emotional intelligence, empathy, communication, motivation	Helps leaders understand employee needs, build trust and inspire commitment	Increased employee engagement, job satisfaction and organizational commitment	Khajanchi (2018)
Organizational Performance Improvement	Problem-solving, decision-making, adaptability, emotional regulation	Enables leaders to handle complex challenges, make better decisions and enhance strategic thinking	Higher productivity, innovation, efficiency and institutional sustainability	Alvarez-Huerta et al. (2022)
Team Management and Collaboration	Communication, empathy, interpersonal skills, conflict resolution	Strengthens leaders' ability to manage diverse teams and resolve conflicts effectively	Improved teamwork, coordination, trust and collaboration in organizations	Owen et al. (2023)

Effective team management and cooperation within a leadership environment rely on the non-cognitive capabilities of leaders who have mastery of skills such as communication, empathy, interpersonal relations, and conflict resolution, which are critical to creating cohesive and high-performing teams. A leader who possesses strong non-cognitive capabilities, will also be able to lead diverse groups, solicit participation from group members, and resolve conflicts swiftly. The presence of strong non-cognitive capabilities within the leader contributes to the establishment of a culture of collaboration, collective trust and respect among team members. When effectively implemented, non-cognitive skills provide for improved coordination and teamwork in both educational and organizational environments, where collaboration is essential for success (Owen et al, 2023).

7. Challenges in Developing Non-Cognitive Skills

There are several challenges complicating factor is the changing context of the work environment, especially with the impact of artificial intelligence and technological change. Non-cognitive competencies include those emotional competencies (i.e., emotional intelligence, motivation, etc.) and cognitive competencies that must be integrated in a work environment. Adding to this complexity is the difficulty in measuring the interactive relationships between these two interactions (Patil, 2025).

The challenge of measuring non-cognitive skills accurately is one of the major challenges to developing non-cognitive skills in leaders. Non-cognitive skills can be defined by the degree to which individuals exhibit behaviours, as they relate to how effective leaders interact with other individuals; however, these behaviours are not able to be measured in the same manner as cognitive skills can be measured. In general, cognitive skills can be easily measured through an individual's scores on standardised tests. In contrast, non-cognitive skills such as 'emotional intelligence', motivation, and resiliency are very subjective and context-dependent and therefore are generally very difficult to measure, resulting in inconsistency and less reliable evaluation across different environments. Consequently, many leadership development programs have difficulty quantifying progress in non-cognitive areas and do not have a similar capacity to assess or compare the progress made by individuals towards their development. Additionally, the vast majority of non-cognitive measurement tools are not generally accepted as a valid way to integrate non-cognitive skills into formalised evaluation systems; for example, in leadership research, the majority of research studies suggest that measuring the interactions between cognitive and non-cognitive skills will be a very complex issue (Dominick et al., 2019).

The lack of awareness and absence of structured training programs targeting non-cognitive skill acquisition has created an additional obstacle. Most educational and organisational systems continue to focus primarily on technical and cognitive competencies; whereas they often ignore the skills relating to the development of emotional and behavioural competencies. Therefore, many do not see how much these types of skills will affect his/her ability to lead effectively. Low levels of available training therefore limit the ability to develop essential competencies, such as emotional regulation, communication and adaptability. This lack of awareness also reduces the effectiveness of any leadership development programs and vice versa, thus impacting the development of leaders who are more complete people (Patil, 2025).

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Many kinds of organizations are missing out on opportunities to develop their employees' non-cognitive skills (e.g., developing basic emotional and social competence) because the organizations do not provide a support structure or framework for developing non-cognitive skills. Organizational barriers such as high levels of pressure at the workplace, lack of flexibility, rigid hierarchies, and limited opportunities for experiential learning and developing interpersonal/relational skills can limit an individual's ability to develop these competencies. Additionally, organizations are quickly needing to adapt their organizational structures and support systems in response to rapidly evolving technologies, including artificial intelligence (AI). With more and more people using AI to help create innovation/ideas and discover new solutions through research/development efforts, new career paths are being formed that require different combinations of cognitive and non-cognitive skills. Due to the challenges associated with balancing technology-supported innovation with human-oriented innovation efforts, many organizations continue to find it difficult to manage their innovation process (Haefner et al., 2021).

8. Strategies for Enhancing Non-Cognitive Skills

Leadership training and development are some of the most successful ways to develop non-cognitive skills used in leadership, especially empathy. They utilize activities that allow participants to engage in experiential learning through the use of role-playing, simulations, and receiving feedback from others. These types of training help people learn how to be more emotionally intelligent, communicate effectively with large groups, work collaboratively with team members, and be able to make well-thought-out decisions in their jobs. Additionally, leadership development models indicate that other types of non-cognitive skills like adaptability, self-motivation, and interpersonal skills are also developed through ongoing learning and practice. By developing and participating in structured training programs, leaders will be able to identify their areas of strengths and weaknesses, which will allow them to target specific non-cognitive skills they need to develop and enhance. Research has shown that the best way to develop leadership skills is through including both cognitive and non-cognitive skill sets and has been demonstrated as a best-practice approach to developing leaders (Mehrabani & Mohamad, 2015).

The role of educational institutions in building non-cognitive skills in children, from preschool through university, is of great significance. Educational institutions can provide opportunities for students to learn life skills, engage in collaborative learning with peers, participate in personality development programs, and other opportunities for holistic development. Educational institutions have the opportunity to help students develop the critical non-cognitive skills of resilience, self-discipline, and social awareness through these various programs. Educational institutions also provide the environment for students to practice their ability to lead, work as part of a team, and develop their communication skills in real-world settings. According to published research, universities play an important role in supporting the development of the whole person (holistic development) through their ability to contribute to academic success through the development of non-cognitive skills (Shek et al., 2023). Awareness of the importance of non-cognitive skills has increased globally; therefore, the need for more standardized frameworks within educational systems will enhance better measurement and development of non-cognitive skills (Zhou, 2017).

Recently, technology and artificial intelligence (AI) have been identified as another strategy for developing and improving non-cognitive (also called "soft") skills. Using AI-based training technologies such as e-learning, digital simulations and adaptive training systems (adaptive training technologies), people can acquire personalized training experiences that enhance their personal and leadership development abilities. Using these technologies, individuals can gain experience in decision-making, problem-solving, interacting with others and communicating in a more hands-on way. Digital technology also provides an ongoing feedback loop for enhancing their emotional intelligence and behavioral competencies. Thus, while using technology to improve learning effectiveness, it is important to strike a balance between digital means and face-to-face interaction, as developing non-cognitive skills requires large amounts of social and emotional experience. The use of technology in leadership development is part of a larger trend toward innovative and measurable strategies for developing skills (Zhou, 2017).

9. Conclusion

According to the research completed on this topic, non-cognitive (soft) skills are critical to developing successful leaders in today’s workplaces, as they include areas of development like the ability to: understand your emotions; communicate effectively with others; be adaptable; be resilient; and be motivated. These non-cognitive skills serve to complement all areas of a leader’s ability to lead their team, make good decisions, and respond quickly to changing or unforeseen circumstances.

In addition to providing a source of support and success for a leader’s ability to lead effectively, non-cognitive skills also have been shown to have a high level of impact on an organization’s ability to perform well through

employees' levels of engagement and teams' ability to work together and accomplish tasks. Nonetheless, the challenges associated with measuring non-cognitive skills, lack of knowledge about what they are and their benefits, insufficient training related to non-cognitive skill development and organizational barriers continue to hinder professional leaders from utilizing these skills as fully as they could. However, if structured training programs, educational opportunities and other forms of technology such as Artificial Intelligence (AI) are used effectively, the development and application of non-cognitive skills can be greatly increased and improved.

The study highlights that leaders today should consider developing both cognitive (intellectual) and non-cognitive (emotional and social) competencies as a part of their leadership skills. Educational institutions and companies need to focus on preparing tomorrow's leaders with well-rounded approaches that include developing their ability to lead emotionally, be flexible in a rapidly changing environment and to work effectively in complex/ever-evolving systems.

10. References

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