

Exploring the synergy of neuroleadership and Islamic values in shaping Generation Z leaders: A mixed method analysis

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ABSTRACT

The synergy of neuroleadership and Islamic values is crucial in addressing leadership challenges posed by Generation Z, particularly in combating toxic leadership, negative culture, and turnover. Generation Z's unique behaviors require leaders who combine neuroleadership and Islamic values to inspire and create positive environments. However, a lack of studies in Indonesia, the largest Muslim-majority country, highlights a significant research gap. Using a mixed-method approach, this study investigates how Islamic values and neuroleadership influence leadership skill development. We conducted focus group discussions with 60 participants and surveyed 317 active members of the biggest Islamic organization in Indonesia, aged 17–23, to test the hypotheses. The results show that both neuroleadership and Islamic values affect leadership skills. Among the eight neuroleadership indicators, transfer and caring are the most influential in shaping leadership skills. Additionally, in accordance with Islamic values, fairness and tolerance are key factors for effective leadership. Generation Z seeks to be heard and understood. While they may lack problem-solving skills, they excel in fairness, tolerance, and relationships.

Keywords: Leadership; Neuroleadership; Islamic Values; Generation Z; Mixed Method

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Introduction

Leadership skills that meet competition demands are essential in managing today's constantly evolving organizational environments. Leaders must understand data, interact with multimedia, and navigate politics to provide quality service. Neuroleadership can help build successful organizational leadership strategies (Aithal & Satpathy, 2024; Ruiz-Rodríguez et al., 2023). Neuroleadership empowers individuals and fosters a healthy organizational culture sustainably by focusing on people. It combines brain science and psychology to develop effective leadership skills, including decision-making, problem-solving, emotional control, influencing others, and managing change (Aithal & Satpathy, 2024; Johannessen, 2020). Leaders who utilize neuroleadership strategies can overcome many organizational challenges (Smith, 2020).

Current leadership trends are highly controversial, with many contemporary leaders displaying toxic behaviors (Thoroughgood et al., 2018). If this continues, future Generation Z leaders may adopt similar behaviors (Gabrielova & Buchko, 2021; Koulopoulos & Keldsen, 2016). This potential character crisis in leadership patterns necessitates changes in developing leadership qualities in Generation Z (Çetin & Halisdemir, 2019; Risky, 2021). Neuroleadership, combined with understanding Islamic values (Aswaja), can solve leadership toxicity (Akbarzadeh, 2016; Alkouatli et al., 2023).

Neuroleadership aims to strengthen leadership by directly connecting it to human neuroscience (Gocen, 2021; Kuhlmann & Kadgien, 2018). Initially developed by David Rock, the concept is defined as social cognitive neuroscience—a subfield of neuroscience that seeks to understand human interactions on social, cognitive, and neural levels (Freedman, 2019; Lazar, 2021). Neurological variables help identify why leaders take certain actions and how they deliver them (Haslam et al., 2020). As an applied field of social cognitive neuroscience, neuroleadership analyzes and shapes leader behavior (Aithal & Satpathy, 2024; Saruhan, 2023).

Today, leaders in the United States, Europe, and the Muslim world face the growing challenge of preventing disputes in Western-Muslim relations (Iqbal & Mabud, 2019; Sahin, 2018). To address this challenge, it is essential to develop a leadership model based on Islamic values (Arar et al., 2022; Sahin, 2018), specifically using the values of *Ahlussunnah Wal Jama'ah* (Rozaq et al., 2020; Said Mayzar Mulia & Ismail, 2020). Such a model reflects faith as the basis of motivation for good deeds and leadership as an ethical and moral responsibility, emphasizing values such as moderation, fairness, tolerance, and harmonization

(Fidiana, 2020; Mahyudi, 2015; Mustafa Busu et al., 2022). Leadership should transcend the ego, focusing on spiritual rewards and the vision of serving others, especially the weak and disadvantaged (Asbaş & Tuzlukaya, 2023; Thakadipuram, 2024).

Islamic value theory in leadership is deliberately developed to incorporate spiritual values, applicable in religious and non-religious organizations (Afsar et al., 2016; Egel & Fry, 2017). It meets leaders' and followers' fundamental needs for welfare, creates vision and value alignment at all organizational levels, and promotes higher employee well-being, organizational commitment, financial performance, and social responsibility (Dorta-Afonso et al., 2021; Haque et al., 2019). The importance of neuroleadership and Islamic values (Egel & Fry, 2017) lies in 1) Creating a vision where leaders and followers are more purposeful and creative, 2) Building an organizational culture based on harmonization with Islamic values where everyone feels understood and valued, and takes ownership of the organization.

The foundation of neuroleadership combined with the Islamic values of *Ahlussunnah Wal Jama'ah* is rooted in inner life or spiritual practice, enabling individuals to transcend personal interests and serve a greater purpose for the common good of the organization (Elamin, 2024; Hagemann, 2023). This relationship between followers, leaders, and stakeholders fosters a service-oriented culture (Fairholm & Gronau, 2015; Ullah et al., 2022). Additionally, it nurtures peace and satisfaction through the relationship between beings and between beings and God (Egel & Fry, 2017).

Research on neuroleadership and Islamic values has shown that they predict various positive outcomes in individuals and organizations across different countries and cultures (Hagemann, 2023; Hamid, 2024). These include increased organizational commitment, job satisfaction, altruism, mindfulness, career self-management, sales growth, work engagement, identification, retention, organizational citizenship behavior, attachment, loyalty, and work unit productivity. They are also negatively related to role stress (Fry et al., 2017).

The fundamental challenges that necessitate preparing new leadership include the effects of toxic leadership, workforce entry and, turnover/loyalty issues, and negative organizational culture. These challenges highlight the need for the neuroleadership model to build Generation Z leadership skills and foster a positive organizational culture. This approach emphasizes emotion, intuition, and self-awareness in leadership and the importance of building strong relationships with followers (Sari & Handayani, 2022; Zaccaro & Banks, 2016).

Implementing neuroleadership based on eight key indicators aligned with the Islamic values of *Ahlussunnah Wal Jama'ah* will create a framework to operationalize this model.

This allows organizations to develop work practices that align with the workforce's desires and leadership at corporate and government levels (Abubakar, 2019; Cascio & Aguinis, 2017; Kramer, 2016). The study's results suggest that integrating neuroleadership building blocks with the Islamic values pillars of *Ahlussunnah Wal Jama'ah* will form the character of Generation Z leaders, promoting positive leadership philosophies, supporting leadership turnover, and establishing positive work values (Farooq et al., 2022; Husain & Khan, 2023).

Islamic values of *Ahlussunnah Wal Jama'ah* can provide a strong foundation for developing Generation Z's leadership skills, helping them become wise, prudent, and just leaders. Based on this, the study aims to develop a model for enhancing Generation Z leadership skills by combining the neuroleadership approach with the Islamic values of *Ahlussunnah Wal Jama'ah* (Azizah & Nurdianto, 2022; Syahputra & Safitri, 2022).

Literature Review

Why Prepare Leaders?

Based on current research literature, leadership is no longer just about holding a position with subordinates. Effective organizational leadership must improve systems, increase retention, and achieve sustainable results. A successful leadership formula includes three essential elements: committed leaders, actively engaged followers, and a shared vision (Northouse, 2018). Three fundamental challenges necessitate leadership preparation: replacing bad leadership, managing workforce entry and exit, and addressing the negative influences of organizational culture (Alimohammadi & Ghasemi, 2017; Cascio & Aguinis, 2017).

Toxic leadership, characterized by an autocratic and traditional style with rigid bureaucratic rules, creates high pressure and negative work culture, affecting organizational performance and member well-being (Pittman, 2020). This style fosters a "culture of fear," impacting members and their families, as members often face repercussions in their personal lives due to workplace stress (Bhandarker & Rai, 2020; Pittman, 2020).

Turnover is a persistent concern, particularly in child welfare organizations (Middleton & Potter, 2015). The first two years in a job are critical; members engaged in their work may miss their children's formative years, impacting family life (Vyas & Butakhieo, 2021). High turnover affects the well-being of members' children and undermines the quality, consistency, and expertise needed in child welfare services (Kim & Pierce, 2023).

Organizational culture often influences workforce interpretation of tasks and responsibilities, impacting psychological and personal well-being and customer service

patterns. Leaders who encourage inclusive partnerships set a positive cultural model for customer interactions (Lamberton et al., 2024; Lückmann, 2020). Culture embodies shared values, myths, beliefs, and perceptions about an organization's functions (Appannah & Biggs, 2015).

Leadership Skills

Leadership skills are increasingly crucial in various fields of work. However, teaching and learning these skills within formal education is challenging. While information on leadership theories and models can be delivered through lectures and seminars (Daniëls et al., 2019; Guhr et al., 2019), supporting the development of concrete leadership skills for students is much more difficult (McGarr, 2021; Roman et al., 2019). Traditional teaching methods, such as textbooks and lectures, are insufficient for teaching leadership skills due to the complexity and uncertainty in defining leadership and the limited knowledge of leadership theories. Leadership is a complex practice influenced by various situational factors (Hadi, 2018; Ali et al., 2017; Sutherland, 2016). Therefore, understanding leadership principles and models alone cannot develop successful leadership practices in different situations. Moreover, classroom education methods are only partially effective in developing the complex skills required in the workplace (Broman et al., 2017; Wong & Ng, 2021).

Leadership skills, which are a leader's abilities to influence others, can be divided into two categories: technical skills and interpersonal skills (Northouse, 2018). Technical skills necessary for carrying out specific tasks can be acquired through education and training. Interpersonal skills needed to interact with others can be developed through experience and training (Jensen & Konradsen, 2018; Kuiper et al., 2015). Leadership plays a vital role in dynamic business and work environments, where leadership skills are key to leading effectively and influencing others to follow directions.

Leadership skills can be divided into four different groups (Dirani et al., 2020; Siewiorek et al., 2012; Sousa & Rocha, 2019). First, cognitive skills involve gathering, processing, and disseminating information, aligning with the Islamic value of *tawashul*, which emphasizes communication (Kardi et al., 2023; Saefudin, 2023). Second, interpersonal skills are related to interacting and influencing others, such as negotiation skills, and correspond to the Islamic value of *ta'aruf*, meaning to know more deeply to facilitate interaction (Asyari & Husnul Abid, 2016). Third, business skills pertain to specific functional areas like operations analysis and personnel resource management, aligning with the Islamic value of *ta'awun*, meaning cooperation (Kashif et al., 2018; Talukder et al., 2022). Lastly, strategic skills are highly

conceptual skills needed to understand complexity, handle ambiguity, and exert influence in organizations, such as visioning and problem-solving skills, corresponding to the Islamic concept of *amar ma'ruf nahi munkar*, which involves promoting good and preventing bad (Hendar, 2023; Yilmaz & Morieson, 2023).

Leadership and Generation Z

Generations born in the 1990s and raised in the 2000s, during significant technological change, are recognized as Generation Z (Burgess et al., 2022; Dr. A.P. Singh & Dangmei, 2017). This generation has grown up with the web, internet, smartphones, laptops, and digital media as integral parts of their identity, earning names such as iGen, Gen Tech, Digital Natives, and Gen Wii. Their deep connection to electronics and the digital realm sets them apart from other generations (Chatzoglou et al., 2020; Szymkowiak et al., 2021; Gabrielova & Buchko, 2021).

Generation Z is the most ethnically diverse and technologically advanced generation (Goryunova & Jenkins, 2023). They communicate casually and directly, with social networking playing a crucial role in their lives. Known for their Do-It-Yourself attitude, they possess entrepreneurial qualities, trustworthiness, and tolerance and are less motivated by money than Generation Y (Črešnar & Nedelko, 2020; Hossain et al., 2023). They maintain a realistic outlook on work expectations and an optimistic attitude towards the future.

However, Generation Z tends to exhibit impatience, a desire for instant gratification, and a lack of ambition seen in previous generations (Dreyer & Stojanová, 2023). Their heavy reliance on technology often results in a shorter attention span and attention deficit disorder (Vedechkina & Borgonovi, 2021; Zhao et al., 2021). This generation is individualistic, self-directed, demanding, materialistic, and entitled (Dreyer & Stojanová, 2023; Rubin et al., 2021). Despite their desire to be heard, they often lack problem-solving skills and the ability to analyze situations and make informed decisions (S. Khan & Yairi, 2018; Shanta & Wells, 2022). Additionally, they are less inclined towards political participation and community engagement than earlier generations (Grasso et al., 2019; Kitanova, 2020).

Schawbel (2014) and Al-Asfour & Lettau (2014) note that Generation Y and Generation Z share similar expectations regarding leadership traits, prioritizing honesty, a solid vision, and good communication skills. However, Generation Z values managers who listen slightly more to their ideas and opinions, while Generation Y prefers autonomy. Moreover, a study by McGaha (2018) indicates that Generation Z prefers leaders who are strong communicators, foster a positive and inclusive culture, demonstrate high emotional intelligence, provide

ongoing mentorship, are involved and engaged, are highly competent, and promote equality. McGaha's study suggests that Generation Z prefers transformational leadership over transactional leadership. Additionally, Grow and Yang (2018) and Adecco (2016) found that Generation Z expects future managers to be fair and confident, possess soft skills, be friendly and open-minded, and provide equal opportunities for internal growth and development.

Neuroleadership

The concept of neuroleadership explores the neural underpinnings of leadership and strategic management practices, known as neurostrategy. This approach aims to uncover the intersection between neuroscience tools, cognitive and integrative neuroscience, and various contexts within neuroscience, such as the social, cognitive, and emotional realms (Cristofaro et al., 2022; Karakas & Yildiz, 2020). Neuroleadership focuses on four fundamental elements: decision-making and problem-solving, emotional regulation, influencing followers through cooperation, and facilitating organizational change. These elements can positively impact the workplace and influence employee behavior. Neuroleaders strive to understand the brain's functioning stages comprehensively, enabling them to optimize work management and exert a positive influence on the work environment through their leadership role.

Recognizing that employees with healthy brain structures contribute to enhanced workplace efficiency, neuroleaders assist in developing employees' brain structures. They achieve this by implementing training programs that foster consistent and appropriate brain development while also guiding employees by identifying and leveraging their strengths as leaders (Davis et al., 2020; Ramzan et al., 2020). Neuroleadership is a brain discipline in leadership used to motivate, manage change, influence, and understand the workforce, which is crucial for its concept (Aithal & Satpathy, 2024; Saruhan, 2023). The collaboration between neuroscience and psychology has led to studies identifying unconscious factors influencing behavior, thereby improving leadership practices (Pittman, 2020; Trenerry et al., 2021). Understanding the biological aspects of the workforce's character can help leaders achieve organizational missions effectively.

Although neuroleadership is a new field with many uncertainties, it provides substantial insights into the workings of organizational culture and climate (Pittman, 2020). The proposed conceptual framework is based on previous research on neuroleadership associated with Islamic values of *Ahlussunnah Wal Jama'ah*, suggesting that neuroleadership can shape leadership character. Neuroleadership is a natural tool for shaping values, ethics, and leadership skills because its approach is based on the human nerve center (Afiouni &

Dehghan, 2022; Kreitner & Kinicki, 2021; Northouse, 2018). Zak (2017) identifies eight fundamental blocks used as indicators to increase trust in organizations: applause, expectations, deliverables, transfer of understanding, interpersonal openness, care for others, investment awareness, and nature. These indicators are highly correlated with values, ethics, and the culture of *Ahlussunnah Wal Jama'ah*.

Furthermore, the role of neuroleadership in enhancing leadership skills has been studied by several researchers, including Fingelkurts et al. (2020), de la Nuez et al. (2023), and Aithal & Satpathy (2024). These studies indicate a positive relationship between neuroleadership and leadership skills. Cognitive skills are improved as neuroleadership focuses on enhancing decision-making, problem-solving, and critical thinking abilities by understanding how the brain processes information and responds to stress. Interpersonal skills are strengthened through the application of emotional intelligence and empathy, which are key components of neuroleadership, allowing leaders to build stronger relationships, communicate effectively, and resolve conflicts. Business skills benefit from neuroleadership by promoting innovative thinking and creativity, enabling leaders to develop new strategies and solutions. Finally, strategic skills are enhanced as neuroleadership encourages long-term planning and adaptability, helping leaders to anticipate changes and make informed decisions that align with organizational goals.

H₁: Neuroleadership influences leadership skills positively.

Islamic Values of Ahlussunnah Wal Jama'ah

Ahlu-sunnah Wal Jama'ah (أهل سنة و الجماعة) is composed of three words, namely *Ahl* (أهل), *Al-Sunnah* (سنة), and *Al-Jama'ah* (جماعة), each carrying its own significance. *Ahl* refers to a collective entity such as a family, a class, or a group of followers. *Al-Sunnah*, on the other hand, denotes a particular way or path, even if it may not be pleasing to everyone. Lastly, *Al-Jama'ah* originates from the term *jama'a*, which signifies the act of gathering or bringing together different elements (Kanafi et al., 2021). The term '*Jama'ah*' is also derived from the word *ijtima'* (association), which stands in contrast to *tafarruq* (divorce) and *firqah* (division). A congregation or *Jama'ah* represents a large assembly of individuals who unite under a common objective. Furthermore, it implies a collective agreement among its members regarding a particular issue (Kanafi et al., 2021; Setiawan et al., 2022).

According to Islamic tradition, *sunnah* refers to a favored path in Islam practiced by the Prophet Muhammad and his companions. *As-Sunnah*, or *sunnaturrasul* and *jama'ah*, involves following these practices in religion and community life. Therefore, *Ahlussunnah Wal*

Jama'ah refers to those who adhere to the teachings of the Prophet Muhammad and his companions (Mawardi et al., 2021; Nirzalin et al., 2021).

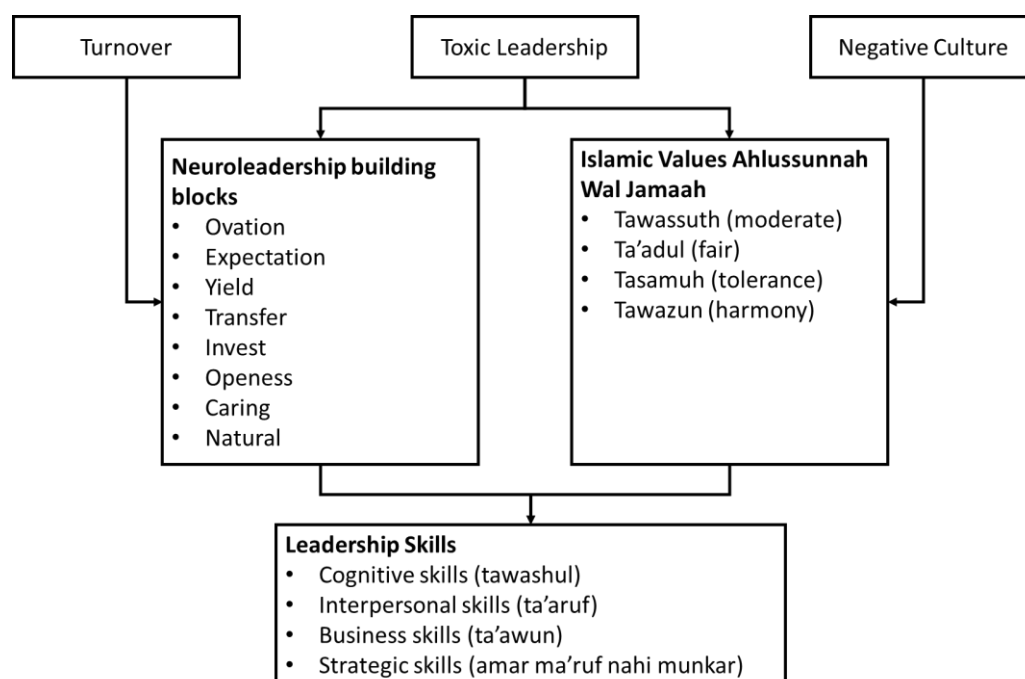
Ahlussunnah Wal Jama'ah theology has been present in Indonesia since the arrival of Islam during the Khulafaur Rasyidin period, particularly during Caliph Uthman bin Affan's time (Putri et al., 2024). Islam spread to Indonesia via two main routes: the southern route with the Shafi'i school of thought (from Arabia through to Indonesia) and the northern route adhering to the Hanafi school of thought (through Turkey and Central Asia to Indonesia) (Kanafi et al., 2021).

Initially, Islam in Indonesia comprised two main sects: Sunni and Shia. The Sunni sect, which gave rise to the majority of *Ahlussunnah Wal Jama'ah* followers in Indonesia, was more widely accepted than the Shia sect, which was introduced by Persian followers and has a presence in areas like Pariaman, West Sumatra (Kanafi et al., 2021; Sari et al., 2020). The peaceful spread of Islam, particularly on Java since the 13th century, was facilitated by the Wali Songo (nine guardians), whose cultural movements helped integrate Islamic values into local traditions (Lukens-Bull & Woodward, 2021; Warisno & ZA, 2018).

The Islamic values of *Ahlussunnah Wal Jama'ah* such as *tawassuth* (moderation), *tawazun* (balance), *i'tidal* (fairness), and *tasamuh* (tolerance) are highly regarded for their implementation. These values promote peace, noble morals, and tolerance of local traditions, and are essential for building harmonious community relations (Anshori, 2018; Fadillah, 2019; Ismail, 2020). *Ahlussunnah Wal Jama'ah* teachings encompass religious, ethical, and human values, addressing social issues and fostering community harmony (Ismail, 2020; Rozaq et al., 2020). Key indicators of *Ahlussunnah Wal Jama'ah* values include *tawassuth* (moderation), *ta'adul* (fairness), *tasamuh* (tolerance), and *tawazun* (harmony) (Anshori, 2018; Ismail, 2020; Rozaq et al., 2020). To effectively implement these values in daily life, a strategy focused on character-building through learning to know, learning to be, learning to do, and learning to live together is essential.

Islamic values can significantly enhance various leadership skills as demonstrated by studies conducted by Navsariwala & Abbasi (2017), Abdul Mutalib & Rafiki (2021), and Hukamdad & Akbar (2023). Regarding the Islamic values of *Ahlussunnah Wal Jama'ah*, the relationship of the four indicators in shaping leadership skills can be explained as follows. Firstly, moderation (*Tawassuth*) fosters balanced decision-making and cognitive clarity, allowing leaders to evaluate complex situations thoughtfully and avoid extreme actions, which is crucial for strategic planning and problem-solving. In addition, fairness (*Ta'adul*) promotes equitable treatment and transparency, strengthening interpersonal relationships by

Figure 1. Conceptual Framework



building trust and respect among team members. This value also supports effective conflict resolution and enhances communication skills, creating a more cohesive and efficient team dynamic. Moreover, tolerance (*Tasamuh*) encourages inclusivity and empathy, essential for interpersonal skills. Leaders can foster innovative business practices and maintain a harmonious workplace by creating a supportive and open environment where diverse perspectives are valued. Finally, harmony (*Tawazun*) ensures a balanced approach to work and life, promoting well-being and sustainable productivity. This balance aids in developing strategic skills, enabling leaders to implement long-term plans that consider the holistic needs of the organization and its people, thereby ensuring sustained organizational success.

H₂: Islamic values of *Ahlussunnah Wal Jama'ah* positively influences leadership skills.

Methods

The approach taken is a phenomenological approach, which seeks to reveal, study, and understand phenomena and their unique contexts as experienced by individuals, delving into the level of individual beliefs (Cuthbertson et al., 2020; Mayoh & Onwuegbuzie, 2013). The ladder of the phenomenological approach depicted in Figure 1 shows a structured methodology to understand the complex issues of turnover, toxic leadership, and negative culture within organizations. The approach examines how neuroleadership building blocks and Islamic values of *Ahlussunnah Wal Jama'ah* influence leadership skills. Neuroleadership

elements such as ovation, expectation, yield, transfer, investment, openness, caring, and natural behavior are crucial for improving management and leadership qualities. Similarly, Islamic values like moderation (*tawassuth*), fairness (*ta'adul*), tolerance (*tasamuh*), and harmony (*tawazun*) aim to instill ethical and moral dimensions into leadership practices. These combined factors are proposed to develop essential leadership skills, including cognitive (*tawashul*), interpersonal (*ta'aruf*), business (*ta'awun*), and strategic skills (*amar ma'ruf nahi munkar*).

This study employs a mixed-method approach to thoroughly examine the relationship between neuroleadership, Islamic values, and leadership skills in addressing organizational challenges. The mixed-method approach is chosen for several reasons. Firstly, it combines qualitative insights with quantitative validation, providing depth and breadth in understanding the phenomena. This allows researchers to answer confirmatory and exploratory questions within the same study, minimizing respective biases (Archibald, 2015; Mayoh & Onwuegbuzie, 2013). Secondly, it provides a comprehensive analysis by exploring complex relationships that a single method might miss, enhancing the credibility and reliability of the findings. Thirdly, it captures individuals' context and subjective experiences, essential for understanding how neuroleadership and Islamic values influence leadership. Finally, it offers a holistic perspective by integrating multiple viewpoints and dimensions, crucial for developing robust leadership models applicable in diverse organizational settings. Through this approach, the study aims to provide a nuanced and evidence-based understanding of how neuroleadership and Islamic values can enhance leadership skills (especially for generation z) and address key organizational issues.

Study 1: Exploratory Study

Qualitative exploratory research was conducted using focus group discussions, an excellent tool for mixed methods research (McKim, 2015). According to Roszkowska & Filipowicz-Chomko (2021), the main benefit of focus group discussions is their ability to gather diverse perspectives and in-depth insights on a specific topic through interactive and dynamic group interactions. This method enables researchers to explore complex behaviors, motivations, and attitudes, leading to a comprehensive understanding of the subject matter. Focus group discussions typically last between 1 to 2 hours, with 90 minutes being a good rule of thumb for planning sessions (Khan & Abedin, 2022). In this study, each focus group discussion lasted for more than an hour to uncover how Islamic values and neuroleadership

influence the development of leadership skills. Audio and video recordings were used to capture observations.

Sixty participants were selected for the study. According to Guest et al. (2016), focus group discussions typically divide opinions into three to five small groups; four groups were formed in this study. Each group consisted of ten to twelve participants. The primary data collection process for the focus group discussions ended once data saturation was reached. Data saturation in the focus group discussions occurred when additional sampling became unnecessary because no new information related to the research question from existing group discussion.

Study 1: Results

Table 1 summarizes the focus group discussion results on neuroleadership indicators, highlighting each indicator's frequent responses and participant quotations. Ovation, characterized by acknowledging high performers, fosters a positive atmosphere. Setting realistic yet ambitious targets, or Expectation, encourages growth and capability stretching. Yield involves granting autonomy in task performance and fostering creativity and trust. Transfer emphasizes utilizing expertise, reducing burnout, and increasing job fulfillment. Invest is about leaders understanding employees' personal lives and fostering a compassionate environment. Openness promotes free idea exchange and transparency. Caring involves leaders showing genuine concern for employee well-being, creating motivation. Lastly, Natural leadership encourages authenticity, inspiring employees to be genuine and comfortable at work. These practices collectively enhance organizational culture, employee satisfaction, and productivity.

Table 1 also highlights various neuroleadership indicators' impact on organizational dynamics and provides valuable insights for developing questionnaire items for future research. Participants emphasized the positive atmosphere created by ovation, where public praise boosts morale and inspires excellence (Pittman, 2020). For instance, the sample quotation "I've noticed that when leaders give public praise for achievements, it creates a positive atmosphere" can be used to develop questionnaire items that measure the frequency and impact of public recognition on employee morale. Setting ambitious targets under the expectation indicator encourages growth and capability stretching (Fernandes, 2016). The quotation "When leaders set realistic yet ambitious targets, it encourages us to stretch our capabilities" can inform items assessing how setting challenging goals affects employee motivation and development. Furthermore, yielding or granting task autonomy fosters trust,

creativity, and valued contributions (Zak, 2017). The statement “Having the autonomy to decide how to approach tasks makes me feel trusted and valued” can be used to create items evaluating the degree of autonomy employees have and its effects on their job satisfaction and innovation. Transfer, by utilizing employee expertise, enhances job fulfillment and reduces burnout (Pittman, 2020). The quotation “Being allowed to work in areas where I have expertise makes my job more fulfilling and reduces burnout” can help develop items that assess how effectively organizations leverage employee strengths and its impact on burnout rates. Investment in understanding employees' personal lives fosters compassion and a supportive work environment (Zak, 2017). The sample quotation, "Having leaders who invest in understanding our individual circumstances helps create a more compassionate environment," can inform items measuring leaders' empathy and its effect on employee engagement and loyalty. These quotations not only illustrate the significance of these neuroleadership practices but also provide a basis for constructing detailed and relevant questionnaire items for subsequent research studies.

The focus group discussion results in Table 2 highlight the significance of Islamic values of *Ahlussunnah Wal Jama'ah* in organizational practices. Participants emphasized the importance of maintaining a steady course through *tawassuth* (moderation), which helps prevent overcommitment and underperformance (Syifa, 2020). The value of *ta'adul* (fairness) was evident in the equal treatment of employees and merit-based decisions (Rizal, 2021). *Tasamuh* (tolerance) was practiced by respecting diverse opinions and backgrounds, fostering a harmonious and inclusive environment (Fahmi, 2013). Lastly, participants noted the importance of *tawazun* (harmony) in balancing work commitments with personal well-being to ensure productivity and health.

These sample quotations can be utilized to develop detailed questionnaire items for further research. For instance, the quotation “*Tawassuth* helps us maintain a steady course, ensuring we don't overcommit or underperform” can inform items measuring the impact of moderation on organizational balance and performance. The statement “We ensure *ta'adul* by treating all employees equally and making decisions based on merit” can be used to create items assessing fairness and equity in decision-making processes. The quote of “We practice *tasamuh* by respecting diverse opinions and backgrounds..” can help develop items evaluating the role of tolerance in promoting inclusivity and harmony. Finally, the quotation “We strive for *tawazun* by balancing work commitments with personal well-being..” can inform items that measure the effectiveness of work-life balance initiatives in maintaining employee productivity and well-being.

Table 1. Focus Group Discussion Results for Neuroleadership

Indicators	Freq. Response	Sample Quotations
Ovation	Positive	"I've noticed that when leaders give public praise for achievements, it creates a positive atmosphere."
The practice of acknowledging high performers within an organization (Pittman, 2020)	Atmosphere	
Expectation	Ambitious	"When leaders set realistic yet ambitious targets, it encourages us to stretch our capabilities."
The act of setting challenging yet achievable goals to foster growth (Fernandes, 2016)	Target	
Yield	Autonomy	"Having the autonomy to decide how to approach tasks makes me feel trusted and valued."
The act of granting workforce autonomy in task performance to foster creativity, learning, and innovation (Zak, 2017)		
Transfer	Expertise	"Being allowed to work in areas where I have expertise makes my job more fulfilling and reduces burnout."
The act of encouraging the workforce to utilize their strengths and expertise in specific projects or areas (Pittman, 2020)	Utilization	
Invest	Compassionate	"Having leaders who invest in understanding our individual circumstances helps create a more compassionate."
The leaders act to devote their valuable resources to understand the personal life of his/her social worker (Zak, 2017)		
Openness	Open	"We can freely share ideas and feedback without fear."
The act of encouraging transparency, open communication, and the free exchange of ideas within the organization (Pittman, 2020)	Communication	
Caring	Genuine	"When leaders show genuine concern for our well-being, it creates a motivating work environment."
The act of demonstrating genuine concern and empathy for the well-being of employees (Pittman, 2020)	Concerns	
Natural	Authentic	"Leaders who are authentic and true to themselves inspire us to do the same."
The practice of fostering an authentic and genuine work environment where employees feel comfortable being themselves (Pittman, 2020)		

Table 2. Focus Group Discussion Results for Islamic Values of *Ahlussunnah Wal Jama'ah*

Indicators	Freq. Response	Sample Quotations
Moderate - <i>Tawassuth</i> The practice of maintaining a balanced and moderate approach in all aspects of life and decision-making (Syifa, 2020)	Steady Course	" <i>Tawassuth</i> helps us maintain a steady course, ensuring we don't overcommit or underperform"
Fair - <i>Ta'adul</i> The principle of ensuring fairness in actions and decisions, treating everyone equitably (Rizal, 2021)	Equal Treatment	"We ensure <i>ta'adul</i> by treating all employees equally and making decisions based on merit"
Tolerance - <i>Tasamuh</i> Acceptance and respect for differing views and practices (Fahmi, 2013)	Respect Diversity	"We practice <i>tasamuh</i> by respecting diverse opinions and backgrounds. This tolerance helps create a harmonious and inclusive environment"
Harmony - <i>Tawazun</i> Maintaining balance and peaceful coexistence in relationships and actions (Fahmi, 2013)	Work-Life Balance	"We strive for <i>tawazun</i> by balancing work commitments with personal well-being. This balance ensures we stay productive and healthy"

Table 3 outlined in the table highlight key leadership skills enhanced by neuroleadership, including cognitive, business, interpersonal, and strategic skills. While cognitive skills, like critical thinking, enable leaders to evaluate situations from multiple perspectives and develop innovative policies using scientific knowledge (Wurzel et al., 2019). Business skills represent understanding market trends, managing budgets, forecasting revenue, and controlling costs, which are essential for effective business operations (Mumford et al., 2007). Interpersonal skills emphasize team collaboration, empathy, active listening, conflict resolution, and fostering productive relationships within teams (Hansen et al., 2014). Strategic skills focus on regularly reviewing and aligning business strategies with changing market conditions to ensure long-term success.

The sample quotations from the focus group discussions provide valuable insights for developing detailed questionnaire items. For example, the cognitive skill quotation, "Leaders

need to evaluate situations from multiple perspectives to come up with the best possible solutions,” can inform items measuring the extent to which leaders use critical thinking in their decision-making processes. Similarly, the business skill quotation, “Two things we've found essential is having a strong understanding of market trends and knowing how to manage budgets, forecast revenue, and control costs,” can be used to create items assessing leaders' proficiency in financial management and market analysis.

For interpersonal skills, the quotation, “We focus on building strong relationships within the team to enhance our productivity,” can help develop items evaluating the effectiveness of team collaboration and the presence of empathetic leadership practices. Lastly, the strategic skill quotation, “We regularly review our business strategies to align with changing market conditions,” can inform items that measure how frequently and effectively leaders adapt their strategies to evolving external environments.

Table 3. Focus Group Discussion Results for Leadership Skills

Indicators	Freq. Response	Sample Quotations
Cognitive The abilities to redefine ideas and concepts, understanding cause-effect, and developing policies using scientific knowledge for innovation (Wurzel et al., 2019)	Critical Thinking	“Leaders need to evaluate situations from multiple perspectives to come up with the best possible solutions.”
Business The abilities necessary to effectively manage and operate a business or organization (Mumford et al., 2007)	Market Trend, Financial Management	"Two thing we've found essential is having a strong understanding of market trends and knowing how to manage budgets, forecast revenue, and control costs”
Interpersonal Skillset that emphasizes empathy, active listening, conflict-resolution, and collaboration to foster a productivity (Hansen et al., 2014)	Team Collaboration	"We focus on building strong relationships within team to enhance our productivity"
Strategic The capacity to inspire others to willingly make daily decisions that support the organization's long-term sustainability (Samimi et al., 2022)	Strategic Adoption	“We regularly review our business strategies to align with changing market conditions"

The sample quotations from the focus group discussions provide valuable insights for developing detailed questionnaire items for future research. For example, the cognitive skill quotation, “Leaders need to evaluate situations from multiple perspectives to come up with the best possible solutions,” can inform items measuring the extent to which leaders use critical thinking in their decision-making processes. Similarly, the business skill quotation, “Two things we've found essential is having a strong understanding of market trends and knowing how to manage budgets, forecast revenue, and control costs,” can be used to create items assessing leaders' proficiency in financial management and market analysis.

Table 4. Item, Pearson Correlation (r-Value), and Cronbach Alpha (CA)

Code	Item Measurement	r-Value	CA
Neuroleadership (NEU)			0.643
NEU1	I feel positive with public praise	0.469	
NEU2	I am encouraged by ambitious targets	0.478	
NEU3	I value autonomy in task decisions	0.511	
NEU4	I feel fulfilled using my expertise	0.548	
NEU5	I appreciate leaders understanding my circumstances	0.485	
NEU6	I like to share ideas without feeling any fear	0.476	
NEU7	I feel motivated by leaders' concern	0.517	
NEU8	I am inspired by authentic leaders	0.280	
Islamic Values of <i>Ahlusunnah Wal Jama'ah</i> (ISL)			0.777
ISL1	I strive to balance our commitments effectively to ensure consistent performance	0.609	
ISL2	Fairness are core principles in my decision-making process	0.788	
ISL3	I respect diverse opinions and backgrounds	0.723	
ISL4	I balance work commitments with personal well-being	0.660	
Leadership Skills (LEA)			0.756
LEA1	Before making decision, I always evaluate situations from multiple perspectives	0.504	
LEA2	I know how to manage our operational budgets	0.545	
LEA3	I focus on building strong relationships within team	0.580	
LEA4	I regularly review our strategies to stay relevant with market	0.573	

Table 5. Multicollinearity, Heteroskedasticity, and Normality Result

Variables	Dependent Variable (LEA)		Dependent Variable (Abs_Res)	Normality Kolmogorov-Smirnov
	Tolerance	VIF	Sig.	Sig.
NEU	0.541	1.847	0.918	0.232
ISL	0.501	1.995	0.611	0.165

For interpersonal skills, the quotation, “We focus on building strong relationships within the team to enhance our productivity,” can help develop items evaluating the effectiveness of team collaboration and the presence of empathetic leadership practices. Lastly, the strategic skill quotation, “We regularly review our business strategies to align with changing market conditions,” can inform items that measure how frequently and effectively leaders adapt their strategies to evolving external environments. These quotations not only illustrate the importance of these skills but also provide a robust foundation for constructing comprehensive and relevant questionnaire items for subsequent research studies.

Study 2: Survey

In Study 2, an online questionnaire was developed based on the findings from Study 1 to test the hypotheses. Purposive sampling was employed with eligibility criteria similar to those of Study 1, specifically targeting active members of the largest *Ahlussunnah Wal Jama'ah* organization in Indonesia, aged 17–23 years (Generation Z). The questionnaire utilized a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale was adapted from several sources: the leadership skills LEA scale from Mumford et al. (2007), the neuroleadership scales from Pittman (2020), and the Islamic values scale from Fahmi (2013). Additionally, self-developed items from the focus group discussion results were included. Detailed operational variables are listed in Table 4. The questionnaires were distributed across major cities in Indonesia, resulting in 343 responses, of which 317 were valid for further analysis. The sample size of the study was considered sufficient because the minimum sample size required for regression analysis, based on an evaluation from a real-life dataset, is typically around 300 or more (Bujang et al., 2017).

Table 4 also provides a detailed analysis of item measurements, Pearson correlation (r-Value), and Cronbach Alpha (CA) values for Neuroleadership, Islamic Values of *Ahlussunnah Wal Jama'ah*, and Leadership Skills. The Cronbach Alpha values for Neuroleadership (0.643), Islamic Values (0.777), and Leadership Skills (0.756) indicate acceptable to good

internal consistency, as values above 0.60 are considered reliable. Pearson correlation (r-Value) shows the strength and direction of the relationship between each item and its respective construct, with all r-values exceeding the critical value of 0.0926, suggesting statistically significant positive relationships. For Neuroleadership, items NEU1 to NEU7 have r-values ranging from 0.469 to 0.548, indicating moderate positive correlations, while NEU8 has a lower but still significant r-value of 0.280. The Islamic Values construct shows strong internal consistency, with r-values from 0.609 to 0.788, highlighting the high relevance of these items. Leadership Skills items exhibit r-values from 0.504 to 0.580, demonstrating good internal consistency (valid).

Table 5 shows the results for multicollinearity, heteroscedasticity (Glejser), and normality (Kolmogorov-Smirnov). For multicollinearity, the tolerance values for NEU (0.541) and ISL (0.501) are both above 0.1, indicating no severe multicollinearity. Correspondingly, the Variance Inflation Factor (VIF) values for NEU (1.847) and ISL (1.995) are well below the threshold of 10, confirming the absence of multicollinearity issues among the predictors. For heteroscedasticity (Glejser), the significance values for NEU (0.918) and ISL (0.611) for the dependent variable (Abs_Res) suggest that there is no heteroscedasticity, as these values are greater than the significance level of 0.05. This implies that the error variances are constant, supporting the assumption of homoscedasticity. Lastly, regarding normality, the Kolmogorov-Smirnov test results for the dependent variable (LEA) yield a significance value of 0.232 for NEU and 0.165 for ISL, which is above the 0.05 threshold, indicating that the residuals are normally distributed.

Result and Discussion

Based on Table 6, the results indicate that both Neuroleadership (NEU) and Islamic Values of *Ahlusunnah Wal Jama'ah* (ISL) significantly enhance Leadership Skills (LEA). The t-value of 2.639 for NEU, with a p-value of 0.011, shows a positive and statistically significant effect on LEA, meaning that higher levels of NEU are linked to better LEA. This finding aligns with Gocen's (2021) study on educational implications, which found that neuroleadership can implement several aspects in educational management, including multitasking, emotion management, optimal learning, psychological foundations, and thematic coherence. It is also consistent with Kuhlmann and Kadgien's (2018) research, which suggests that neuroleadership aims to develop screening tools for good leaders, enhance leadership skills, and identify subconscious factors influencing behavior to improve management and leadership practices.

Table 6. Hypothesis Result

Hypothesis	t-Value	Significance	Decision
H ₁ : NEU -> LEA	2.639	.011	Accepted
H ₂ : ISL -> LEA	4.230	.000	Accepted

The implications of this study indicate that NEU can enhance various leadership skills, including cognitive, business, interpersonal, and strategic skills. Pearson Correlation results show that the highest value from NEU is on the NEU4 Transfer item, where participants agreed with the statement, "I feel satisfied using my skills." This implies that highly satisfied employees can contribute to improving LEA, particularly in LEA3 business skills, which had the highest Pearson Correlation value, "I focus on building strong relationships within the team" (Choi et al., 2016). These two measurement items have the strongest relationship, suggesting that increasing opportunities for employees to work in their areas of expertise enhances their satisfaction and reduces boredom, thereby increasing their focus on building strong team relationships and ultimately boosting productivity (Plester & Hutchison, 2016; Cleary et al., 2016). Another item that can improve LEA from NEU is NEU7, Caring, the second-highest measurement item after NEU4 Transfer, where participants agreed with the statement, "I feel motivated by the care of leaders," which directly relates to LEA4 Strategic Skills, "I regularly review our strategies to keep them relevant to the market" (Warrick, 2017; Fernandez & Shaw, 2020). These two items are the second-highest measurement items, indicating that genuine leader care for employee well-being and creating a motivating work environment (Salas-Vallina, Alegre & López-Cabrales, 2021) can enhance employees' review of business strategies and their willingness to align with market changes (Stavis & Felli, 2015). Lastly, despite the relationship between NEU8, Natural, and LEA1, Cognitive Skills, being the lowest-scoring items, they are interconnected, suggesting that increasing the natural and honest qualities of leaders can inspire employees to evaluate situations from multiple perspectives to find the best solutions (Tamers et al., 2020).

Similarly, the t-value of 4.230 for ISL, with a p-value of 0.000, demonstrates a strong positive impact on LEA. This suggests that greater adherence to ISL is associated with improved LEA. This aligns with Amaliah et al. (2015) and Miswanto et al. (2020) research, which found that Islamic religiosity positively influences Islamic work commitment and satisfaction in small and medium enterprises, indirectly related to leadership skills. Brooks and Mutohar (2018) also found that Islamic values and beliefs influence Islamic leadership

skills and cross socio-religious contexts. The implications of ISL on LEA are evident from the Pearson Correlation values, where ISL2 *Ta'adul* (fairness) has the highest value, with participants agreeing with the statement, "Fairness is a primary principle in my decision-making process," directly relating to LEA3 Business Skills, "I focus on building strong relationships within the team" (Ötting & Maier, 2018). These items have the highest values, indicating that promoting fairness within a team or organization can strengthen interpersonal relationships, enhancing productivity (Eisenbeiss et al., 2015).

Another significant ISL item is ISL3 *Tasamuh* (tolerance), where participants agreed with the statement, "I value diverse opinions and backgrounds," directly relating to LEA4 Strategic Skills, "I regularly review our strategies to keep them relevant to the market" (Grover et al., 2018). This indicates that practicing tolerance by valuing diverse opinions and backgrounds can create a harmonious and inclusive environment, increasing employees' awareness of reviewing business strategies and aligning them with market changes (Aderibigbe et al., 2023). Another important ISL item is ISL4 *Tawazun* (balance), where participants agreed with the statement, "I balance work commitments with personal well-being," directly relating to LEA2 Business Skills, "I know how to manage our operational budget" (Chowdhury et al., 2022). These interconnected items indicate that ensuring employees balance work commitments with personal well-being enhances their understanding of business trends and budget management, allowing better revenue forecasting and cost control (Mallozzi et al., 2019; Kerr & Ainscow, 2022).

The lowest yet still significant relationship between ISL and LEA is ISL1 *Tawassuth* (moderation) and LEA1 Cognitive Skills, where participants agreed with the statement, "I strive to balance our commitments effectively to ensure consistent performance," directly relating to "Before making decisions, I always evaluate the situation from various perspectives" (Wayne et al., 2017). Despite being the lowest values, they are interconnected, suggesting that increasing stability by ensuring moderation in actions enhances decision-making evaluations (Eaidgah et al., 2016).

Conclusion and Suggestion

Based on the findings, it can be concluded that integrating neuroleadership and Islamic values is an effective strategy for developing leadership skills in Generation Z. These approaches complement each other, fostering effective and character-driven leaders. Interestingly, the attributes of transfer and caring play the most significant roles in developing leadership skills, indicating that enabling individuals to utilize their strengths and showing

genuine concern for their well-being are crucial for effective leadership. On the other hand, from the perspective of Islamic values of *Ahlussunnah Wal Jama'ah*, the principles of fairness and tolerance are paramount. This means that leaders who are fair, equitable, and respectful of diverse opinions create a more inclusive and harmonious environment. This also aligns with the characteristics of Generation Z, who value leaders or managers who are strong communicators, good listeners, and those who are inclusive and ensure equality. They do not consider moderation and harmony (work-life balance) as urgent because they tend to be more flexible and accustomed to multitasking and dynamic environments. Generation Z often adapts to various work conditions and seamlessly integrates their personal and professional lives. Therefore, while they appreciate work-life balance, they might not see it as a critical requirement if other important values like fairness, effective communication, and inclusivity are met.

Future research should explore the long-term impact of integrating neuroleadership and Islamic values on leadership development and organizational performance. Studies could investigate how these leadership approaches influence employee retention, job satisfaction, and overall productivity in different cultural contexts. Additionally, examining the specific neuroleadership practices that resonate most with Generation Z across various industries could provide deeper insights into tailoring leadership development programs. Further research could also explore the potential challenges and limitations of integrating these approaches in diverse organizational settings. Finally, longitudinal studies tracking the progression of Generation Z leaders who have undergone training in neuroleadership and Islamic values could offer valuable data on the effectiveness and sustainability of these leadership development strategies.

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Muhammad Ricza Irhamni, a graduated from Master of Management from Diponegoro University with laude predicate the best graduate in 2020, specializing in Human Resources. Experienced teaching and writing at Faculty of Economics and Business, Wahid Hasyim University, Semarang, Indonesia. In his contribution, he provides a comprehensive framework, compiles an introduction, reviews literature, leads data collection efforts, compiles discussions, and diligently handles and incorporates feedback from reviewers and editors to ensure research rigor.

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