Climbing the Ladder Sideways: Personality Traits of Non-Traditional CEOs

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ABSTRACT

This study investigates how non-traditional CEOs, who often lack conventional business education or elite corporate experience, successfully ascend to executive roles by leveraging distinct emotional and personality traits. Traditional pathways to leadership often prioritize MBAs, finance backgrounds, or time spent at top consulting firms. However, an increasing number of CEOs are emerging from alternative backgrounds, signaling a shift in how organizations define and identify effective leadership. This paper explores how non-traditional executives compensate for gaps in traits such as emotional intelligence, resilience, adaptability, and calculated risk-taking. Using natural language processing techniques such as Latent Dirichlet Allocation (LDA), the study identifies and quantifies recurring personality themes in CEO interviews, statements, and biographies. These traits are then analyzed across variables such as nationality, industry, and company size. The results suggest that successful non-traditional CEOs are not anomalies, but representatives of a broader evolution in organizational leadership. As the COVID-19 pandemic reshapes the business landscape, expectations placed on CEOs are shifting, demanding greater empathy, agility, and visionary thinking. Leaders today are expected not only to deliver financial performance but also to foster internal cohesion, adapt rapidly to uncertainty, and embody values aligned with social responsibility and innovation. Ultimately, this study positions leadership as a dynamic, evolving construct—one that is shaped not solely by what leaders have done, but by how they think, connect, and respond to complexity. It urges organizations to rethink traditional paradigms and to recognize the strategic value of adaptable, emotionally intelligent, and purpose-driven leadership.

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Since the late 20th century, the profile of CEOs has undergone a significant transformation, reflecting profound societal changes (Decressin et al, 2023). During this period, the prototypical CEO was predominantly a white male, often from a privileged background with connections to

influential networks and possessing degrees from prestigious institutions. For instance, Zweigenhaft (2020) reported that in 2000, white men occupied 96.4% of Fortune 500 CEO positions, underscoring their dominance within the corporate elite. These individuals typically ascended through the organizational hierarchy by gaining experience across key departments over decades, often within a single company, before assuming leadership roles. This traditional trajectory contributed to a homogenous leadership landscape, with limited diversity and a narrow focus on a fixed set of attributes.

Recent transformations in the business landscape, as documented by Cappelli et al. (2023), have contributed to a more diverse and dynamic pool of CEOs. Factors such as the declining ratio of high-technology product prices to average household income, reduced economic disparity, enhanced social mobility, and concerted efforts to promote equity have enabled individuals from historically underrepresented groups, including women, people of color, and those from lower or middle-class backgrounds, to ascend to top leadership roles. This shift challenges traditional assumptions about leadership prerequisites and raises new questions about which qualities, whether inherent or learned, drive CEO success.

The role of education in shaping business leadership has also undergone significant evolution alongside changes in CEO characteristics. In earlier decades, an elite education was widely regarded as a prerequisite for ascending to leadership roles. It was common for aspiring leaders to pursue university degrees in business to acquire the requisite skills for success, often leveraging their academic credentials as an entry point to prestigious companies. Over time, they would rely on their formal education to secure promotions, with the most fortunate individuals rising to the level of CEO.

However, this traditional trajectory has shifted in recent years, as many contemporary CEOs demonstrate that a business degree is no longer essential for achieving top leadership positions (Shin, 2023). Rather than education serving as the foundation for success, it is increasingly viewed as a supplementary credential, with established CEOs often seeking advanced degrees to enhance their achievements or bolster their professional image. This reversal in the perceived cause-and-effect relationship between education and success reflects a growing emphasis on innovation and entrepreneurship over academic qualifications. Education now functions more as a validation of success than as the cornerstone upon which it is built, signaling a profound transformation in the role of academic attainment within the business world.

From the early 20th century through the early 2000s, business models predominantly relied on centralized and controlled communication channels to drive sales, necessitating that CEOs exhibit traits such as charisma, an authoritative physical presence, and exceptional communication skills. These channels, including television, newspapers, magazines, and radio, required leaders to be compelling and memorable presenters, capable of forging a personal connection with their audience.

The traits exhibited by U.S. CEOs have evolved significantly in response to shifting political and economic conditions, including the COVID-19 pandemic, domestic polarization between Democrats and Republicans, and international conflicts such as the Russia-Ukraine war and the Israel-Palestine crisis. Traditionally, U.S. CEOs embodied a formal, polished demeanor, communicating in sophisticated and measured tones. However, recent years have witnessed a shift toward a more direct and informal style, exemplified by figures like Donald Trump. According to Ahmadian et al. (2017), Trump's speeches during the 2016 Republican primaries

were marked by heightened levels of grandiosity ("I-talk") and informality ("T-talk") compared to other leaders, a communication style the authors attribute to his success. This evolution underscores a transformation in the perception of effective leadership within the U.S.

The "Good Man Theory," also referred to as the Leadership Trait Theory, posits that certain innate qualities predispose an individual to be an effective leader. Core traits associated with this theory include decisiveness, confidence, honesty, and diligence. According to Kanodia and Sacher (2016), early proponents of trait theory categorized these characteristics into distinct domains, collectively forming the profile of a naturally effective leader. While these traits can be honed over time, they are considered fundamentally intrinsic and not fully teachable through formal education. This perspective emphasizes that leadership is primarily about inherent qualities rather than acquired skills, implying that leadership potential is not equally distributed across individuals.

However, the Good Man Theory has faced significant criticism, particularly regarding its assumption of universal leadership effectiveness (Sivaruban, 2021). Some argue that leadership adaptivity is critical, and the notion that a good leader in one context will excel in all situations oversimplifies the complexities of effective leadership. This challenge underscores the importance of contextual factors in determining success, moving the discourse beyond innate traits to a more dynamic understanding of leadership.

In a typical business education curriculum, students are exposed to a blend of theoretical frameworks and practical applications designed to prepare them for leadership roles (AACSB, 2023). These programs are rooted in the leadership skill approach, which transitions the focus from innate traits to specific, teachable abilities, positioning leadership as a set of competencies that can be cultivated through education and practice. This perspective emphasizes the development of key skills such as effective communication, analytical writing, mathematical reasoning, and critical thinking. Unlike traits, which are often considered inherent, these skills are accessible to anyone with the willingness to learn and refine them.

However, business education tends to prioritize the dissemination of concrete knowledge and skills over the cultivation of the intrinsic traits emphasized in leadership trait theory. This distinction highlights a fundamental divergence between the origins of leadership: traits versus instruction, or nature versus nurture. By emphasizing measurable skills over adaptability, business education risks overlooking the unpredictable nature of real-world leadership. Although taught skills are undoubtedly valuable, there inevitably arise scenarios where leaders must rely on their innate ability to adapt and respond effectively to dynamic and unforeseen challenges, underscoring the limitations of instruction alone in fostering effective leadership.

Additionally, a potential limitation of the skill-based approach lies in the variability of business contexts. Business leadership often lacks universally applicable rules, and the skills that enable one leader's success may not necessarily translate to another's. This variability highlights the necessity for adaptability and contextual understanding, elements that may extend beyond the scope of formal education and structured skill development.

A significant body of prior research on CEO traits relies heavily on self-reported questionnaires to assess leadership characteristics, as exemplified by Kumra et al. (2024) and Aljuhmani et al. (2021). While such tools offer insight into personal perceptions, they are inherently subjective, vulnerable to bias, and often suffer from low response rates. Additionally, subjective interpretations of non-quantifiable traits, such as "adequate confidence," further

complicate data consistency, as different respondents may define and evaluate such traits differently. This restricts the ability to draw comprehensive conclusions about the traits that contribute to effective leadership.

Another widely used approach involves third-party ratings, as demonstrated by Larcker et al. (2021), who employed surveys distributed to directors working closely with CEOs. These ratings are often derived from board members, employees, or external analysts who assess a CEO's traits based on their observations and interactions. Although this method mitigates some issues inherent in self-reported data, it remains vulnerable to the subjective opinions of raters. Furthermore, the nuance of leadership traits is often lost in third-party evaluations, as these ratings rely on external perceptions rather than direct engagement with the CEOs themselves.

A notable gap in the literature is the limited exploration of the relationship between CEO trait development and business education. While numerous studies have examined leadership traits and skills, few have specifically investigated how business education contributes to the cultivation of these traits. The extent to which traits such as confidence and perseverance can be effectively developed through educational programs remains a subject of debate. Yet addressing this gap has meaningful practical implications: if future research demonstrates that leadership traits can be cultivated through targeted training, it could significantly influence the structure of business education. Institutions may move toward a more holistic model, integrating trait development alongside technical skill-building, to better equip future leaders for real-world challenges. This line of inquiry not only advances theoretical understanding but also offers actionable insights for educational and corporate stakeholders. This study aims to address three questions.

Question 1: What emotional or personality traits are most associated with successful CEOs? This question aims to identify intrinsic qualities that contribute to effective leadership and decision-making among CEOs.

Question 2: What learned skills and experiences contribute most to a CEO's effectiveness? This question investigates the role of acquired competencies in enhancing a CEO's ability to navigate organizational challenges and achieve success.

Question 3: How do inherent emotional or personality traits interact with acquired skills to influence a CEO's success? This question explores the interplay between natural traits and learned abilities, examining how qualities are complemented by strategic expertise to enhance leadership effectiveness.

This study makes a novel contribution by utilizing LDA to examine CEO traits across a broad corpus of texts, thereby moving beyond self-report surveys and third-party ratings. This approach enables a more objective identification of leadership qualities. This research speaks to educators, aspiring leaders, and corporate stakeholders seeking to understand what makes a CEO effective in today's unpredictable leadership world. By identifying key traits of non-traditional CEOs, this study fills a gap in the literature on how leadership qualities develop outside traditional educational and career pathways, offering new insights into the evolving standards of effective leadership.

Trait Approach

The trait approach to leadership posits that certain inherent characteristics are fundamental to the success of CEOs (Stogdill, 1948, 1974). This theoretical perspective asserts that such traits are relatively stable over time and not acquired through formal education. It suggests that effective leadership emerges from a combination of personality attributes that individuals either possess naturally or develop early in life. Proponents of this approach focus on identifying individuals who inherently demonstrate these qualities, rather than attempting to cultivate them through educational programs. This view implies that leadership potential is primarily a function of innate disposition, emphasizing the importance of intrinsic traits in distinguishing successful leaders.

Skill Approach

Conversely, the skill approach to leadership contends that effective leadership is grounded in a set of learnable skills (Katz, 1955). These include problem-solving abilities, communication proficiency, critical thinking, and technical expertise, competencies that can be nurtured through education and practical experience. Unlike the trait approach, the skill perspective suggests that leadership potential is not predetermined and that virtually anyone can become a successful CEO by acquiring the appropriate combination of skills. This approach highlights the role of business education in equipping individuals with the tools necessary to excel in leadership roles.

The Central Debate

The central question emerging from these two perspectives is whether effective CEOs are defined by a blend of innate traits or by a combination of cultivated skills. Furthermore, it raises the issue of whether business education can meaningfully contribute to the development of these leadership qualities or whether certain aspects of leadership remain beyond the scope of formal training. This debate forms the foundation of the research, which seeks to explore how CEOs are shaped within the dual contexts of inherent attributes and external influences, including education and professional experience.

Literature Review

The origins of Leadership Trait Theory can be traced back to the early 20th century, building upon the foundational ideas of the "Great Man Theory." This theory posited that leadership characteristics were fixed and innate, suggesting that only individuals born with these traits could achieve success as leaders (Carlyle, 2013, p. 1841). The development of Leadership Trait Theory led to the publication of numerous studies attempting to identify the inherent qualities of effective leaders. Traits such as intelligence, self-confidence, and charisma were frequently highlighted as essential for leadership (Khan et al., 2016).

By the mid-20th century, however, criticism of the trait approach began to emerge. Researchers observed that, despite its long-standing prominence, the theory lacked a consistent and universal set of traits, failing to account for the influence of environmental and situational factors. Scholars such as Benmira and Agboola (2021) emphasized that leadership is far more complex and context-dependent, shaped by factors such as situational dynamics, interactions with followers, and external influences. These critiques challenged the notion that leaders are

solely "born," highlighting instead that they can also be "made" through experience, learning, and adaptation.

This led to a shift toward business education. In this setting, the focus is on teaching practical skills and knowledge relevant to the business world. Research by Strang (2023) indicates that programs commonly include components like organizational behavior, financial math, teamwork, and ethical decision-making to prepare students for business leadership roles. However, a study by Jeswani (2016) reveals that while business education aims to cover a broad range of topics, there is often a gap between the skills emphasized in the curriculum and the skills valued by employers. For instance, while employers rated management skills as most critical, they observed a gap in graduates' abilities in this area despite extensive coverage in business education programs. On the other hand, graduates excelled more in communication skills, which were perceived as less important by employers.

Moreover, most business education programs emphasize concrete, measurable skills over the innate traits highlighted in leadership trait theory. As a result, while students gain comprehensive business knowledge, their development as leaders may not align with "inherent qualities" established as a recipe for success. Current research suggests that to bridge this gap, business schools are incorporating a broader range of teaching methodologies, including the utilization of technology, interdisciplinary approaches, and a focus on ethics and corporate social responsibility, aiming to better prepare students for leadership in a complex global business environment (Avolio et al, 2019).

The shift toward this leadership skills approach emphasizes the belief that leadership abilities, such as technical, human, and conceptual skills, can be learned and developed rather than purely innate traits. Purohit (2023) further explores this, highlighting Katz's three-skill model and Mumford's skills-based model, which assert that leadership effectiveness depends on specific competencies and experiences. Multiple business education programs now incorporate these models, aiming to prepare students for real-world leadership challenges in a complex environment.

A paper by Halliwell et al. (2023) aligns with the skills approach, emphasizing that more personal leadership qualities, such as self-awareness and adaptability, can also be nurtured through leadership coaching. This idea complements the skills approach, which focuses on developing technical, human, and conceptual skills. Coaching plays a key role in guiding leaders to refine these abilities, further illustrating that effective leadership is based on skills and competencies that can be learned and enhanced.

To further examine the foundations of effective leadership through multiple approaches, this section analyzes the traits most frequently associated with CEOs and leaders as identified in previous research. Kirkpatrick and Locke (1991) identified key leadership traits contributing to success, including drive, honesty, integrity, cognitive ability, and knowledge of the business. Expanding upon this, a more recent study by Han et al. (2017) found that among the six HEXACO personality factors, conscientiousness, openness to experience, and agreeableness had the most significant positive effects on CEO performance. However, there remains no consistent or universally agreed-upon list of traits.

Hacker and Washington (2017) further emphasized that during the 20th century, Intelligence Quotient (IQ) was considered a key indicator of cognitive ability, logical thinking, and learned skills, leading employers to prioritize individuals with high IQs for leadership roles. However,

they argue that managerial success extends beyond cognitive intelligence to include application and relationship management skills—commonly referred to as Emotional Quotient (EQ). EQ, which reflects the ability to collaborate effectively and build strong relationships, is increasingly recognized as a critical determinant of leadership success. While many successful leaders possess a high IQ, it is not necessarily the defining trait of their success; instead, EQ has emerged as an equally, if not more, important factor in effective leadership.

Several research papers have used different methodologies to study CEO traits and their impact on leadership and organizational performance. For example, a study by Karaszewski and Drewniak (2021) compared empirical data from the 2000 largest global corporations, collected in 2008 and 2018, to identify changes in leadership characteristics over time. Their work included analyzing surveys from CEOs to understand the evolution of leadership styles and traits in the corporate world. This research emphasizes the importance of leadership styles for employee commitment and overall organizational success, showcasing how traits like personality, qualifications, and values of corporate leaders influence company performance.

In addition, a study by Choudhury et. al (2019) provides an example of qualitative analysis using video recordings. They analyzed unstructured interviews with 61 emerging-market CEOs, employing machine learning tools to interpret data from facial, textual, and oral communication. The study used these videos and their transcripts to code the variance in sentiment (emotion) and topic diversity. By also using facial expression recognition, they categorized the communication styles of CEOs into distinct types (e.g., excitable, stern, dramatic). This approach allowed the researchers to explore how communication styles could predict firm behaviors, such as acquisition likelihood.

Theil et al. (2023) and O'Reilly et al. (2023) both employ natural language processing (NLP) techniques in their respective studies to collect data on CEO personality traits. The latter study focuses on using spoken text from earnings calls to extract linguistic features. Then, a machine learning algorithm was utilized to predict Big Five personality scores, generating a well-rounded report of each CEO's characteristics.

Unlike the studies mentioned above, this research employs a text-based LDA analysis to examine the traits of CEOs and leaders. By focusing on patterns in dialogue among competitors of *The Apprentice*, this paper explores linguistic indicators of personality and leadership style. This approach provides a new perspective by analyzing in-person communication at scale, offering unique insights into leadership traits that are not captured through survey-based or video analysis methods.

This section compares and contrasts four research papers that explore the traits and skills contributing to CEO success. By examining their research questions, objectives, and findings, this analysis aims to identify commonalities and differences contributing to a more profound understanding of effective leadership.

The research questions posed in these four papers provide valuable insight into the diverse approaches to understanding CEO success, focusing on both intrinsic traits and external factors. Each paper takes a unique perspective on leadership, exploring aspects such as emotional intelligence, adaptability, and the interplay between innate qualities and acquired skills.

The objectives of these papers collectively examine how various CEO characteristics influence company success, though their approaches differ significantly. Karaszewski and Drewniak (2021) emphasize the evolution of leadership traits and competencies over a decade,

particularly within global corporations, to identify shifts in desired leadership characteristics and their implications. This is particularly relevant as it highlights how the expectations for leadership have adapted to changing business environments, offering a perspective on what traits are currently valued. Choudhury et al. (2019) investigate CEO communication styles, utilizing advanced machine learning methods such as topic modeling and sentiment analysis to understand how verbal and nonverbal communication correlates with mergers and acquisitions (M&A) outcomes. By focusing on how communication influences key corporate decisions, this study underscores the importance of effective interpersonal and strategic skills, further enriching understanding of the traits that drive tangible business success. Theil et al. (2023) study how a CEO's personality traits, as measured through a text-based Myers–Briggs Type Indicator (MBTI) regressor, influence financial risk, providing empirical evidence for the upper echelons theory. While this study does not directly identify traits contributing to success, it highlights the relationship between leadership personality and corporate financial outcomes. O'Reilly et al. (2023) focus on the role of a CEO's personality in shaping organizational culture, demonstrating that certain traits and values are foundational to how leaders influence culture over time. Together, these papers provide a multifaceted view of how CEO traits and behaviors intersect with corporate dynamics, highlighting both direct and indirect pathways to leadership influence.

The findings of the four papers reveal distinct yet interconnected ways in which CEO characteristics influence organizational outcomes, with effective contrasts in focus and impact. Karaszewski and Drewniak (2021) highlight the evolving perceptions of leadership styles over a decade, finding a more balanced evaluation of leadership effectiveness, with command and normative styles gaining favor in corporate contexts, while democratic and authoritative styles experienced a decline in effectiveness. This contrasts with the paper by Choudhury et al. (2019), which focuses on CEO communication styles and their impact on M&A outcomes. Unlike Karaszewski and Drewniak's (2021) broader focus on leadership styles, Choudhury et al. (2019) conclude that specific verbal and nonverbal behaviors influence the strategic success of firms.

Theil et. al (2023) shift the focus to the relationship between CEO personality traits and stock return volatility, revealing that extroverted, intuitive, and thinking CEOs are associated with less financial risk. This differs from the broader style evaluations of Karaszewski and Drewniak (2021) and the communication-specific findings of Choudhury et al. (2019) by concentrating on the direct correlation between personality traits and financial performance. O'Reilly et al. (2023), on the other hand, analyze the link between CEO personality and organizational culture, finding that CEOs with traits like agreeableness positively influence dimensions such as agility and innovation, while conscientious CEOs, often being detail-oriented, are associated with lower levels. This focus on culture sets it apart from the financial emphasis of Theil et al. (2023) and the strategic outcomes of Choudhury et al. (2019).

While all four papers explore CEO characteristics, they diverge in their primary areas of impact: leadership styles, communication and decision-making, financial outcomes, and organizational culture. These contrasts highlight the different types of influence that CEOs have, illustrating that success stems from a combination of traits, styles, and behaviors tailored to specific organizational needs and contexts.

Together, these four papers offer a comprehensive understanding of the ways in which CEO traits and behaviors influence business outcomes, illustrating both the diversity and interconnectedness of effective leadership. Karaszewski and Drewniak (2021) highlight how leadership styles evolve over time in response to changing corporate environments, offering a broader context for understanding leadership effectiveness. Choudhury et al. (2019) narrow this focus by demonstrating how communication styles, both verbal and nonverbal, directly impact critical strategic decisions such as mergers and acquisitions, emphasizing the importance of interpersonal skills in driving tangible business outcomes. Theil et al. (2023) and O'Reilly et al. (2023) delve deeper into the role of personality traits, connecting them to financial performance and organizational culture, respectively. While Theil et al. (2023) focus on the measurable financial risks associated with personality dimensions, O'Reilly et al. (2023) emphasize the long-term cultural alignment influenced by traits like agreeableness and conscientiousness. These studies collectively highlight that no single set of traits or skills defines CEO success; rather, leadership effectiveness is shaped by the interplay of adaptable styles, strategic communication, intrinsic personality traits, and their impact on both immediate organizational performance and long-term cultural evolution. By synthesizing these perspectives, it becomes evident that effective leadership requires a dynamic balance of traits tailored to the goals of an organization.

The body of research on CEO traits and communication has made several significant advancements. For example, the study by Karaszewski and Drewniak (2021) stands out for its comparative approach, examining changes in leadership traits over a decade. This long-term perspective offers valuable insights into how corporate leadership evolves in response to shifting economic and cultural dynamics. By focusing on a large sample of global corporations, their work sheds light on emerging leadership traits that influence company performance, providing a comprehensive overview of trends within the corporate world.

Choudhury et al. (2019) research introduces an innovative methodology using video and textual analysis. Their application of machine learning to identify CEO communication styles in real time is a significant advancement. This mixed-method approach, combining qualitative observations with data-driven analysis, captures nuances that traditional surveys or self-reports might miss. It demonstrates the value of synthesizing facial expressions, text sentiment, and oral communication to predict firm-level outcomes effectively.

The study by Theil et al. (2023) represents an advancement in linking CEO personality traits to financial performance using innovative text-based personality assessment methods. By applying an MBTI regressor trained on crowdsourced data, the research provides empirical evidence supporting the upper echelons theory. This novel approach allows for the analysis of personality traits without relying on self-reported data, overcoming a common limitation in management studies. The authors make a key contribution by demonstrating how traits such as extraversion and intuition correlate with reduced financial risk, highlighting the direct and measurable impact of leadership personality on corporate stability and performance.

O'Reilly et. al (2023) advance the field by exploring the relationship between CEO personality and organizational culture using validated natural language processing tools. Their integration of personality traits with Glassdoor employee culture ratings reveals how leaders shape the cultural dimensions of agility, innovation, and collaboration within their firms. This

work extends the understanding of CEO impact beyond immediate performance metrics, emphasizing the long-term cultural imprint leaders leave on their organizations.

While the research on CEO traits and communication has made strides, there are notable limitations in some studies. For example, the study by Karaszewski and Drewniak (2021) used a survey-based approach focusing on CEOs of global corporations. This reliance on self-reported data might introduce bias, as CEOs may present themselves in a more favorable light. Additionally, this method does not capture the full spectrum of leadership traits observable through real-time interactions and behaviors, such as dialogue from videos or speeches.

Similarly, the qualitative analysis conducted by Choudhury et. al (2019), while innovative in using video and text analysis to identify communication styles, focuses exclusively on emerging-market CEOs. This limited scope may not fully represent the traits and behaviors of CEOs in more diverse or established markets. Additionally, the interviews of CEOs whose native language was not English had to be translated into English, possibly leading to misconceptions or alterations about what was truly said.

In the paper by Theil et. al (2023), several limitations emerge. First, the use of a text-based MBTI regressor, while innovative, relies on crowdsourced data, which may not accurately represent the actual personalities of the CEOs. Additionally, the study focuses primarily on financial risk, specifically stock return volatility, which, while important, offers a limited view of CEO effectiveness. Broader measures of success, such as long-term organizational growth, employee satisfaction, or cultural impact, are not addressed. Finally, the analysis does not account for potential confounding variables, such as industry-specific factors or economic conditions, which could influence financial outcomes independent of CEO personality traits.

O'Reilly et al. (2023) identified personality traits that corresponded to organizational culture through traits from the Big Five and HEXACO model. Even though this proved successful, they did not link specific personality traits to the mechanisms that build societal norms. Moreover, the researchers' use of the Big Five model was not comprehensive, even though it accounted for some of the variance in an individual's personality. Similarly, natural language processing technology is relatively new, and validation of the method is incomplete, potentially leading to false or insufficient results.

Method
Key Definitions

Chief Executive Officer (CEO): In this context, a CEO is defined as the highest-ranking executive responsible for the operations and strategic direction of a company. This position typically involves decision-making at a large scale, overseeing multiple departments, and being accountable to the board of directors. For this research, we will focus on CEOs of both for-profit and nonprofit organizations, considering how leadership may vary depending on the company's scale and type of operation.

Business Education: In this paper, business education refers to formal academic programs, specifically at the undergraduate (B.A./B.S.) level or higher, that focus on business principles, management, economics, finance, marketing, and leadership development. This includes bachelor's degrees in business administration, management, or similar fields, as well as advanced degrees like MBAs.

The Assumptions of the Study

1. Observability of Traits: We assume that CEO traits are observable and can be identified through various assessment forms. This assumption is crucial to the study, as it posits that these traits manifest in behavior and decision-making, making them measurable by external parties.

2. Stability of Traits: This research assumes that CEO traits are generally stable and consistent. Traits are not seen as permanent but are considered to have a level of consistency that makes them identifiable over a significant period. This stability allows for the analysis of how these traits correlate with leadership effectiveness.

3. Consistency of Scale: This research assumes that the scales and measurement tools used to assess CEO traits are consistent across different contexts. This ensures that the data collected is comparable, regardless of industry, company size, or geographic region.

4. Consistency of Definition: It is assumed that key traits, such as "independence," are defined and understood consistently across cultural contexts. The research assumes that the essence of such traits remains recognizable, allowing for cross-cultural comparisons. This assumption supports the universality of certain leadership qualities and minimizes the risk of misinterpretation due to cultural differences.

This study employs computational qualitative analysis to explore the traits of non-traditional CEOs. All data used in this study are textual.

The primary source of data is a set of publicly available transcripts from Season One of *The Apprentice,* sourced from the ForeverDreaming transcript archive (https://transcripts.foreverdreaming.org/viewforum.php?f=3583). Season One was chosen for its structured format, featuring sixteen contestants completing weekly leadership tasks and undergoing boardroom evaluations. These transcripts provide consistent, dialogue-driven records of leadership language in high-pressure, decision-making contexts.

Sampling was non-random and purposive. All sixteen contestants from Season One of *The Apprentice* were included in the analysis to ensure full coverage of the season's leadership discourse.

This data setting represents a structured, business-oriented competition in which participants engage in entrepreneurial tasks under time constraints, public evaluation, and team dynamics. It was selected because it simulates many of the challenges faced by real-world CEOs, including conflict resolution, strategy, negotiation, and communication under pressure.

While the show is a media production and includes dramatized editing, the transcripts themselves capture unscripted spoken dialogue, decision-making processes, and team-based leadership behaviors in natural language. Therefore, the dataset offers a unique opportunity to analyze real-time leadership discourse in a controlled yet dynamic setting.

The goal of the study is not to generalize findings to a population, but to extract recurring linguistic patterns associated with leadership traits through thematic exploration. The use of reality television data is appropriate for such qualitative, exploratory purposes.

No direct observation or behavioral coding was conducted. Instead, through consolidating textual data from *The Apprentice*, LDA is applied to identify dominant topics and themes across multiple data sources. LDA is a statistical model used for topic modeling in textual analysis. It

identifies hidden themes within a collection of documents by analyzing word co-occurrences, assuming that each document is a mixture of topics and each topic is defined by specific word patterns. The model outputs the probability distribution of topics in each document and of words within each topic, enabling researchers to uncover dominant themes and recurring patterns in textual data. This computational method enables the study to uncover patterns and trends in the language used by CEOs, offering insights into common leadership traits and priorities.

There were sixteen competitors on Season One of *The Apprentice.* They are listed in Table 1 in order of elimination. All information reflects conditions during the time of filming.

Table 1

Contestant Profiles on Season One of the Apprentice

Name	Age	Business Experience	Business Education
David Gould	31	Healthcare Venture Capitalist	Master of Business Administration (MBA) in Finance, Stern School of Business, New York University (David, n.d.)
Jason Curis	24	Real Estate Manager	Bachelor of Arts (BA) in Advertising, Michigan State University (JMC Management, n.d.)
Sam Solovey	27	Founder of Internet Company	BS in Political Science, Colgate University (O'Keeffe, 2004)
Bowie Hogg	25	Account Executive	Bachelor of Business Administration (BBA), Mays Business School, Texas A&M University (Hogg, 2024)
Kristi Frank	30	Restaurant Owner	BS in Industrial Engineering, University of Southern California (Rucker, 2009)
Jessie Conners	21	Marketing Firm Owner	High School Diploma (*The Apprentice,* Season 1, Episode 1)
Tammy Lee	36	Stockbroker	Unknown
Ereka Vetrini	27	Marketing Manager	Boston College
Omarosa Manigault-Stallworth	29	Political Consultant	Master's Degree, Howard University (Ballotpedia, n.d.)
Heidi Bressler	30	Senior Account Executive	Master's Degree in Criminology, American University (Speaker Booking Agency, n.d.)
Katrina Campins	24	Real Estate Agent	BBA in International Finance and Marketing, University of Miami (The Miami Hurricane, 2004)
Troy McClain	32	President of Own Company	High School Diploma (Stewart, 2019)
Nick Warnock	27	Copier Salesman	BA in English, University of San Diego (Farmers Insurance, n.d.)
Amelia Henry	30	Account Manager	MBA, Texas Christian University (TCU Magazine, n.d.)
Kwame Jackson	29	Investment Manager	MBA, Harvard Business School, Harvard University (Kwame Inc., n.d.)
Bill Rancic	32	Cigar Business Owner	BS, Loyola University Chicago (Samwel, 2024)

Note. Data compiled by author from episodes of *The Apprentice* Season 1 and outside sources (see Works Cited).

The hypotheses set by this study are stated as follows.

Hypothesis 1:
        Ho: Having a business background does not promote business success.
        Ha: Having a business background promotes business success.
Hypothesis 2:
        Ho: Business skills are not teachable and cannot be learned.
        Ha: Business skills are teachable and can be learned.
Hypothesis 3:
        Ho: No emotional or personality traits bring shared benefits among successful business people.
   Ha: Certain emotional or personality traits bring shared benefits among successful business people.

Results and Discussion

The first step of an LDA analysis is to identify the optimal number of topics that the bad of words should cluster under. There are usually four available methods used for this process. The outputs of them are exhibited in Figure 1. The rest of this chapter reports the LDA outputs and analyses.

Figure 1
Determine the Optimal Number of Topics in the LDA Analysis
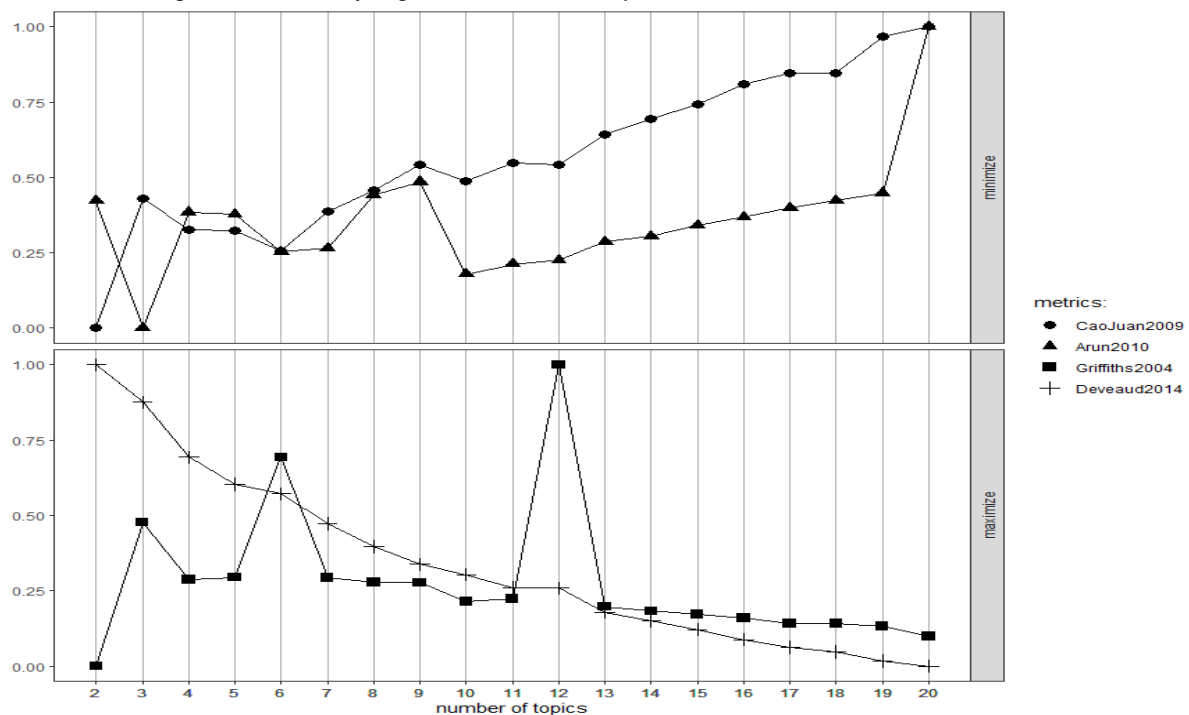
Note. Data compiled by author from episodes of The Apprentice Season 1.

The first group of LDA topics (Topics 1 through 3) highlights core personality traits that consistently appear in the language of non-traditional CEOs (Figures 2, 3, and 4). Topic 1 centers on the prominence of the word "think," which reflects an emphasis on logical reasoning. In contrast, the smaller size of "feel" suggests that emotions tend to take a back seat in leadership communication. Topic 2 shifts the focus toward positivity and results. Words like "wonderful" and "ultimately" show that effective CEOs balance optimism with outcome-driven leadership. Topic 3 introduces a more emotionally distant dimension, featuring words such as "calm," "destroy," "eliminate," and "argue." Together, these imply that some CEOs adopt a cold-blooded, strategic mindset when under pressure. The word "since," also prominent in this cluster, points to a tendency to draw on one's past experiences and foundation to justify decisions. This supports the rejection of Hypothesis 3's null hypothesis and the acceptance of the alternative: emotional and personality traits, such as optimism, emotional control, and analytical thinking, appear to bring shared benefits among successful business people.
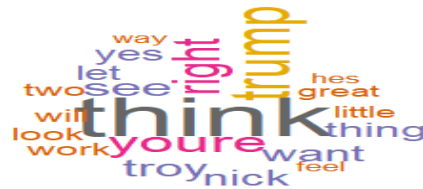
Figure 2

*Topic about Analytical Nature of CEOs*

Figure 3

Topic about Positivity Inside the Workplace

Figure 4

Topic about Cold-bloodedness

The second group of topics (Topics 4 through 6) focuses on the broader professional context and the challenges CEOs face inside the workplace (Figures 5, 6, and 7). Topic 4 is shaped by words like "amount" and "competitive," which suggest that financial concerns often take precedence over personal connections. These language patterns reflect a work environment where leaders navigate resource scarcity and high-stakes decision-making. In Topic 5, the word "maybe" stands out, signaling the constant uncertainty CEOs deal with. Rather than having clear-cut solutions, leaders often need to weigh options and make choices in unpredictable circumstances. Topic 6 builds on this complexity, offering a picture of leadership as a continuous process. Words like "half," "contribute," "negotiator," and "campaign" indicate that CEOs are not only solving problems in the moment but also constantly adapting to new challenges and evolving dynamics. This empirical evidence rejects Hypothesis 2's null hypothesis and supports the alternative: these CEOs demonstrate strategic planning, negotiation, and adaptability—skills that appear to have been learned or developed rather than innate.

Figure 5

Topic about Financial Relationships and Competitiveness Inside the Workplace

Figure 6

Topic about Uncertainty

Topic 5

Figure 7

Topic about Evolving Circumstances

Topic 6

The third group of topics (Topics 7 through 9) explores how non-traditional CEOs carry their leadership style into their personal lives (Figures 8, 9, and 10). Topic 7 includes words like "lady" and "cab," hinting at everyday life beyond the office, while "help," "favor," and "skill" suggest that CEOs remain influential and resourceful even outside professional settings. In Topic 8, words such as "profit," "toast," "congratulations," and "lease" reveal that competitiveness can extend into social environments. CEOs may still measure success and comparison during casual interactions. In contrast, Topic 9 captures a softer side. Words like "good," "like," and "team" point to warmth, humility, and the ability to form positive personal connections. Even when not in a formal leadership role, CEOs appear to value collaboration and emotional intelligence.

Figure 8

Topic about Outside Life

Topic 7
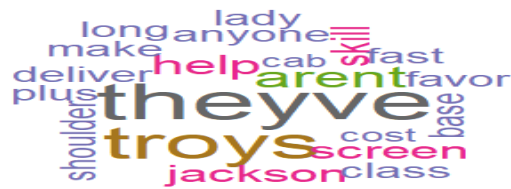
Figure 9

Topic about Competitiveness Outside the Workplace

Topic 8

Figure 10

Topic about Positivity Outside the Workplace

Topic 9

The final group of topics (Topics 10 through 12) focuses on how CEOs envision their future (Figures 11, 12, and 13). Topic 10 is built around aspirational words like "succeed," "luxury,"

and "laidback," suggesting a forward-looking mindset centered on success and personal fulfillment. Topic 11 introduces a more complex picture. While the language still reflects ambition, words like "exchange," "goodbye," "profit," and "competitor" suggest that the future is also shaped by transactional decisions and ongoing strategic thinking. Finally, Topic 12 shifts to reflection. Words like "gosh," "finally," and "congratulation" reveal that CEOs not only focus on the path ahead but also take time to celebrate their achievements. These leaders seem to recognize the importance of looking back and acknowledging the personal growth that has shaped their journey.

Figure 11

Topic about Successful Envision of Future Life

Figure 12

Topic about Transactional Envision of Future Life

Figure 13

Topic about Celebration of Achievements.

The findings of this study contribute to ongoing discussions within leadership theory by highlighting the characteristics of non-traditional CEOs, particularly those who lack elite educational credentials or conventional professional trajectories. The results align with the Trait Approach, which emphasizes the role of stable, inherent qualities in effective leadership (Stogdill, 1948, 1974). For example, Topic 2, *Positivity Inside the Workplace*, and Topic 6, *Evolving Circumstances*, reflect traits such as emotional intelligence, adaptability, and optimism—attributes that support Stogdill's conclusion that effective leaders often demonstrate persistence, sociability, and self-confidence, especially when navigating uncertain or high-pressure environments. This again affirms support for Hypothesis 3's alternative: shared emotional traits, particularly adaptability and sociability, appear as recurring strengths.

At the same time, the findings extend beyond the traditional trait perspective by emphasizing the role of learned skills, consistent with the Skill Approach proposed by Katz (1955). Katz argued that effective leadership depends on the development of technical, human, and conceptual skills. Topic 4, *Financial Relationships and Competitiveness*, and Topic 5, *Uncertainty*, reveal a focus on strategic planning, data-driven decision-making, and risk assessment, skills that reflect a conceptual understanding of leadership challenges. These skills may be especially critical for non-traditional CEOs who must compensate for a lack of institutional advantages with sharp execution and adaptability. This provides strong grounds to reject the null of Hypothesis 2 and support the idea that business skills can indeed be taught or acquired.

Taken together, the results illustrate how non-traditional CEOs may leverage distinct traits and competencies, reflected in topic clusters such as *Positivity Inside the Workplace, Evolving Circumstances, Uncertainty,* and *Financial Relationships and Competitiveness*, to operate effectively without traditional credentials. These patterns suggest that language tied to adaptability, emotional insight, and strategic thinking plays a compensatory role in leadership success. Accordingly, this paper rejects the null of Hypothesis 1: while many of these CEOs may not have formal business backgrounds, their success challenges the idea that such a background is necessary; non-traditional leaders appear to thrive without it.

While traditional leadership theories like the Trait and Skill Approaches provide a strong foundation for understanding effective leadership, recent studies have expanded the conversation by identifying traits that matter most in modern, non-traditional contexts. These works offer updated insights that complement and refine the findings presented in this paper.

For example, Chen and Sriphon (2022) explore the role of authentic leadership during the COVID-19 pandemic, finding that traits like ability, ethics, and supportiveness help leaders build trust and maintain strong social exchange relationships, even in remote or uncertain work environments. Their findings suggest that managing change effectively, motivating others, and fostering positive working relationships are essential abilities for leaders navigating disruption. These results align with this paper's LDA-based topics such as *Uncertainty* and *Evolving Circumstances* (Topics 5 and 6), which reflect a need for adaptability, reassurance, and competence in dynamic environments. Similarly, Topics 7 and 9, which emphasize warmth, support, and interpersonal attentiveness outside the workplace, echo the traits Chen and Sriphon associate with high-quality leader–follower relationships.

Karaszewski and Drewniak (2021) provide further insight by identifying the most desirable leadership traits in corporate environments across a decade-long comparison. They find that

traits like responsibility, foresight, motivation, empathy, and the ability to inspire others have grown in importance, while older-style traits such as dominance, task knowledge, and extroversion have declined. This shift toward relational and visionary leadership supports the findings in this study's *Future Vision and Reflection* cluster (Topics 10–12), where CEOs use language that expresses ambition, long-term planning, and personal growth. Additionally, the rise of traits like righteousness and emotional control in corporate contexts reinforces the emotional nuance found in Topics 2 and 3, where leaders balance positivity with cold-blooded strategy. Their emphasis on leadership over traditional managerial tasks, such as allocating resources or setting procedures, also validates the patterns seen in this paper, where non-traditional CEOs appear to rely less on technical control and more on communication, vision, and adaptability.

Lastly, O'Reilly et al. (2023) provide direct support for the idea that personality traits such as agreeableness can shape leadership outcomes, especially in influencing organizational culture. Their study, which uses natural language processing to extract Big Five personality traits from CEO speech, finds that agreeableness contributes to agility and innovation across companies. This resonates strongly with Topics 2 and 9, where CEOs use positive and cooperative language that fosters warmth, teamwork, and morale. Taken together, these studies reinforce the idea that non-traditional leaders succeed not through rigid authority or elite backgrounds but through adaptability, emotional intelligence, and strategic vision.

Conclusion

Summary

This research investigated the personality traits associated with effective executive leadership through the lens of *The Apprentice*, using Latent Dirichlet Allocation to identify recurring themes in CEO-like behavior. Despite the unconventional data source, the structured environment of the show allowed for analysis of real-time decision-making, stress responses, and interpersonal dynamics. The study highlights recurring traits such as positivity, competitiveness, and strategic thinking—offering new insights into how leadership qualities manifest in high-pressure environments. These findings contribute to organizational behavior and human resource management by emphasizing personality indicators that may help inform hiring, succession planning, and leadership development.

Beyond traditional assessments based on education or credentials, this study supports a more trait-based understanding of leadership potential. Non-traditional CEOs—those who succeed without elite academic or business backgrounds—often rely on emotional intelligence, adaptability, and creativity to navigate challenges. These insights underscore the value of lifelong learning and proactive self-development, suggesting that leadership can emerge from diverse experiences and pathways. Future research could expand this analysis to more diverse data sources or explore how business education might cultivate similar traits, bridging the gap between formal training and real-world leadership effectiveness.

Limitations

This study has several limitations that may affect the interpretation of its findings. One major limitation is the reliance on *The Apprentice* as the sole source of data. As a reality television

show, it may present incomplete or exaggerated portrayals of competitors' actions and personality traits for entertainment and viewing purposes. Additionally, the show's edited and narrated structure may create an unrealistic or dramatized version of real-world business scenarios.

Additionally, while LDA was utilized to provide an objective framework for identifying patterns of text, the results are inherently influenced by the selection of parameters, such as the number of topics. This may have introduced a degree of subjectivity into the analysis.

Finally, the focus on qualitative analysis in this study limits the extent to which quantitative observations were made. This may restrict the ability to draw broader and generalized conclusions across multiple contexts.

Future Studies

While this study provides valuable insights into the personality traits of CEOs, several questions remain unanswered, allowing for further observation.

Possible research questions are as follows:

1. Are CEO traits transferable across industries or cultures? This question seeks to examine whether personality traits that contribute to a CEO's success in one industry or cultural context are equally effective in others.
2. Do major events impact CEO personality traits? Future studies could analyze how significant events, such as economic recession or technological advancement, affect CEO traits' adaptation or development.
3. Are CEO traits related to the nature of the product or service? Research could explore whether the characteristics of CEOs align with the demands of their company's product or service.
4. Is there a "one size fits all" model for CEO traits? Investigating whether a universal set of traits exists for successful CEOs could yield valuable insights.

Future research could leverage methodologies such as longitudinal studies, cross-cultural comparisons, or case studies of CEOs in emerging industries to provide deeper insights into these questions.

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