

Using Kruskal Wallis H Tests to Compare Citation Differences Among the Leading Leadership Theories

Reginald L. Bell
Prairie View A & M University

Kathy Kuria
Kuriah Consulting, LLC

Ursula Brady
Texas A&M University, Corpus Christi

When a leadership theory appears in the title of the article, will Google's Cited By counts differ among the leading topics in leadership theory? We tested this research question by comparing Google Scholar "Cited By" citation counts for 400 articles across 10 leading leadership theories, using a control group as the baseline, and splitting the articles into high- and mid-volume tiers. Using Kruskal–Wallis H tests, we found that when a leadership theory appeared in the title of the article, articles consistently outperformed controls with ($p < .001$) with large effect sizes for Tier 1 ($\eta^2 = 0.283$) and Tier 2 ($\eta^2 = 0.162$). The takeaway is clear: strategic, well-crafted titles with theory-specific keywords don't just describe your work, they can meaningfully amplify its visibility and scholarly impact. We make two recommendations for authors seeking ways to improve the impact of the leadership theory articles they write.

Keywords: artificial intelligence, citations, ethical, family-wise error, h-index, homoscedasticity, impact, inclusive, influence, Kruskal Wallis H Test, leadership theory, transformational leadership

THE IMPORTANCE OF AN ARTICLE'S TITLE

Recent years have seen an increasing amount of research on the impact of paper titles on citation rates (Rossi et al., 2020). The title of an academic article plays a crucial role in attracting readership, influencing citations, and optimizing discoverability in digital databases. Scholars debate whether adding an author's area of expertise to the title increases its visibility and citation count, or if it restricts its intended audience by making it too narrowly focused (Ebrahim et al., 2014; Rostami et al., 2014). Several studies have explored different aspects of article titles, including their length, structure, lexicon, and their relationship with impact metrics such as citations and downloads (Jacques & Saebire, 2010; Milojević, 2017; Paiva et al., 2012).

Structure, Length, Lexicon and Other Aspects of Titles

There are structural aspects of titles. Additionally, the title structure affects reader involvement. Several studies have examined the structural components of article titles and their correlation with citation impact. The use of colons in article titles has been a subject of considerable interest. Hartley (2007) and Lewison and Hartley (2005) found that titles with colons are common in some disciplines and may contribute to increased citation rates. However, Jacques and Sebire (2010) argue that while structured titles help clarify content, their influence on citations varies depending on journal type.

There is the length and citation impact of academic titles of published articles. Studies suggest that shorter, result-oriented titles are more likely to attract citations. Paiva, Lima, and Paiva (2012) found that concise titles describing research results lead to higher citation counts. Jamali and Nikzad (2011) and Subotic & Mukherjee (2013) observed a similar trend, noting that brief, engaging titles increase readership and impact. Habibzadeh and Yadollahie (2010) and Letchford et al. (2015) further support this, emphasizing that shorter, accessible titles enhance discoverability across disciplines. Alimoradi et al. (2016) highlighted the role of specificity and length in citation rates, finding that precise wording improves article visibility. Chokshi et al. (2016) analyzed radiology journals and found that articles with clear, field-specific terminology received more citations within their discipline, though their broader reach may be limited.

There are lexical and disciplinary differences among titles of published articles. Examining management research, Jaca-Madariaga et al. (2024) found that distinctiveness is in part responsible for more consistent citation patterns. Similarly, Nair and Gibbert (2016) discovered a significant relationship between field-related keywords in titles and management science citation performance. Haggan (2004) explored differences in research paper titles across literature, linguistics, and science, revealing variations in title construction based on disciplinary norms. Soler (2007) conducted a similar study in scientific fields, highlighting the importance of precise and technical wording for audience engagement. Nagano (2009) expanded on this by comparing lexical choices in soft disciplines, indicating that humanities titles often adopt a more descriptive and interpretative approach compared to the concise and direct nature of scientific titles.

Article titles can optimize content for greater readability and increased searchability of subject matter. With the rise of digital databases and search engines, a growing body of research emphasizes optimizing titles for both human readers and machine algorithms. Moore (2010) proposes a two-step approach to title optimization, emphasizing clarity and keyword inclusion for improved discoverability in search engines. Terra et al. (2021) and Pottier et al. (2024) extend this perspective by examining subject-access metadata and the relationship between keywords, titles, and abstracts in academic databases. Similarly, Tran et al. (2024) examined highly cited research articles and found that specific title elements, including specialization keywords, played a crucial role in article discoverability.

Maksudul Shadat Akash (2024) explored the societal and professional implications of including academic titles, such as "Dr.," in published work. While this study does not directly analyze specialization in article titles, it provides insight into how formal recognition and professional branding influence academic reception. Using a different approach, Heard et al. (2023) found that while humor can initially engage the reader, its impact on long-term academic performance remains unclear. Psychology research by Subotic and Mukherjee (2013) yielded a similar conclusion: shorter and more engaging titles had higher download rates, but did not necessarily result in more citations.

The collective findings from these studies emphasize the importance of title characteristics in academic publishing. The literature suggests that including an area of specialization in the title of an article has both advantages and disadvantages. Although specificity can improve engagement within a particular discipline, the article's broader reach may be limited. To optimize impact, titles should be clear, concise, and informative while considering disciplinary conventions, accessibility, and discoverability. The growing reliance on digital repositories further amplifies the necessity of well-structured titles to enhance visibility and citation impact. Future research could explore the construction of titles across emerging disciplines and their interaction with evolving digital publishing platforms.

The inclusion of an author's specific area of expertise in the title has mixed effects on article performance. Al-Awqati (2006) discusses the significance of article titles as the first point of engagement

for readers. Martínez and Mammola (2021) found that the use of specialized terminology tends to reduce overall citation counts due to a narrower audience. Similarly, Fox and Burns (2015) highlighted that while technical specificity may improve citations within a field, it can hinder interdisciplinary engagement.

However, other research presents a more nuanced view revealing that titles serve as a concise representation of the research, guiding potential readers in their decision to delve deeper into the content. Chamorro-Padial and Rodríguez-Sánchez (2023) emphasized that a balance between specificity and accessibility is crucial for optimizing article visibility. Their study demonstrated that well-structured titles, which include field-specific terms while maintaining a general appeal, tend to perform best in both specialized and broader academic contexts. Similarly, Christensen et al. (2009) emphasize that well-crafted titles and abstracts are essential in attracting readers from diverse disciplines.

Our Study's Purpose

Our study's purpose is to investigate current research on the impact of article title properties, particularly the inclusion of phrases associated with specialization, on citation counts and academic participation. In order to answer the research question, we test two hypotheses. The brief literature serves as a guidepost for the various research articles on the influence that an area of specialization or topic in the article title might have on citation counts. The literature also serves as a guide to the quantitative analyses, findings, discussion of results and implications for future research.

There are always tips on how to get an article published. More directly, the title of the publication is seen to have importance. The brief literature review helped inform us on how to best formulate the research question. Overall, studies indicate that concise titles improve citation potential by making research more discoverable and appealing to a wider audience (Dorta-Gonzalez & Santana-Jiménez, 2018; Letchford et al., 2015; Paiva et al., 2012). When researching on any topic in the field of leadership, a literature search and review was essential. However, when delimiting the research question, it is often the common practice to search for key terms in the "title of the article first," with restrictions on the time period [this type of search is known as a custom range.]. The discipline of the research influences the research articles being published, including "modification in noun phrases" as well as in the soft disciplines (Nagano, 2009; Nagano, 2015).

Our Research Question

We wanted to know if including any of the leading leadership topics over the past twenty years, in quotes, when searching for results "in the title of the article" would lead to differences in the Google "Cited By" count. Therefore, the following research question was formulated.

RQ: When a leadership theory appears in the title of the article, will Google's Cited By counts differ among the leading topics in leadership theory?

METHODS

There is no sense pretending that scholars are not using Generative AI in their research endeavors. Consequently, we used AI as a tool to expedite some basic questions on leadership's leading topics. Our goal was to verify the face validity of the AI overview through a literature review, and then investigate the summary provided to us by the AI using empirical data and statistical analyses. Therefore, on June 22, 2025, we asked Google Generative AI (Gemini): "What exactly are the leading topics in leadership theory over the past 20 years? Who are the pioneering scholars associated with the development of each of the leadership topics? Can you provide me with an APA 7th Edition reference list in addition to a summary of the main ideas?" Shown in Table 1 are the results of the AI Overview, answered on June 22, 2025.

TABLE 1
GOOGLE GEMINI FOUND 10 LEADING TOPICS OF LEADERSHIP THEORY

What exactly are the leading topics in leadership theory over the past 20 years? Who are the pioneering scholars associated with the development of each of the leadership topics? Can you provide me with an APA 7th Edition reference list in addition to a summary of the main ideas?

AI Overview, answered on June 22, 2025

Based on the information gathered, here are some of the leading topics in leadership theory over the past 20 years, along with associated scholars and a summary of their main ideas:

1. Authentic Leadership:

- Main Ideas: Authentic leadership emphasizes a leader's genuineness, self-awareness, and ethical behavior. Authentic leaders operate with congruence between their values and actions, fostering transparency and trust within their teams. This approach fosters a work environment where employees feel respected and valued.
- Pioneering Scholars: **Bill George** is a key proponent of authentic leadership, suggesting that it arises from a leader's life experience and self-understanding.
- Significance: Authentic leadership gained traction in response to corporate scandals and a crisis of public trust in leadership. Studies link it to increased job satisfaction and organizational commitment.

2. Servant Leadership:

- Main Ideas: This theory, proposed by **Robert K. Greenleaf**, emphasizes putting the needs of others first and supporting their development. Servant leaders aim to empower and serve their followers, believing that true leadership emerges from this service mindset.
- Pioneering Scholars: **Robert K. Greenleaf** is credited with initially proposing this concept in his essay "The Servant as Leader".
- Significance: Servant leadership gained popularity in the 21st century due to its emphasis on empathy, listening, and personal development, contributing to increased job satisfaction, team performance, and organizational commitment.

3. Transformational Leadership:

- Main Ideas: Transformational leaders inspire and motivate their followers to go beyond their self-interests for the benefit of the organization. They achieve this by acting as role models, articulating a clear vision, encouraging creativity and stimulating individual growth.
- Pioneering Scholars: **James V. Downton** and **Bernard M. Bass** are key figures in the development of transformational leadership theory.
- Significance: Transformational leadership is one of the most widely used leadership theories in the 21st century and has been linked to higher employee engagement, performance, and job satisfaction.

4. Inclusive Leadership:

- Main Ideas: Inclusive leaders prioritize diversity, equity, and inclusion, creating an environment where everyone feels valued and respected. They actively seek diverse perspectives, challenge biases, and promote equitable opportunities for all team members.
- Pioneering Scholars: While specific individual pioneers are not explicitly mentioned in the search results for the past 20 years, the theory is associated with researchers like **Bourke & Dillon**, **Karimi**, **Shore et al.**, **Randel et al.**, and **Nishii**.
- Significance: Inclusive leadership fosters innovation, improves decision-making, strengthens team cohesion, and contributes to attracting top talent and increasing competitiveness.

5. Emotional Intelligence (EI) in Leadership:

- Main Ideas: EI involves recognizing and managing one's own emotions and understanding the emotions of others. In leadership, EI is crucial for building relationships, managing stress, fostering open communication, and creating an inclusive environment.

- Significance: EI is increasingly emphasized in leadership training programs, as it helps leaders navigate complex challenges, prioritize emotional well-being, and create a positive and productive work environment.

6. Technology and its Impact on Leadership:

- Main Ideas: Technology has profoundly impacted leadership, enabling faster decision-making, remote work capabilities, digital communication, and data-driven decision-making. It has also transformed leadership training and development programs.
- Significance: Leaders must embrace technological advancements while prioritizing ethical considerations, such as cybersecurity and data privacy. Balancing technology and humanity is crucial for effective leadership in the digital age.

7. Ethical Leadership:

- Main Ideas: Ethical leadership emphasizes integrity, fairness, and care for others. Ethical leaders communicate ethical standards, model ethical behavior, and promote peer accountability.
- Significance: Ethical leadership is critical for building trust, fostering positive organizational cultures, and positively impacting internal workforce culture and external reputation.

8. Shared Leadership:

- Main Ideas: This theory recognizes that leadership responsibilities and decision-making can be dispersed among multiple team members, rather than resting solely with a single leader.
- Significance: Shared leadership is an emerging trend that reflects a shift towards more collaborative and distributed leadership approaches.

9. Agile and Adaptive Leadership:

- Main Ideas: These approaches emphasize flexibility, responsiveness, and the ability to adapt to a constantly changing business landscape. Agile and adaptive leaders can navigate uncertainty, embrace innovation, and foster a culture of continuous learning.
- Significance: These leadership styles are increasingly relevant in the digital age, as they enable organizations to remain competitive and resilient in the face of disruption.

10. Focus on Followers and Engagement:

- Main Ideas: Recent leadership theories place greater emphasis on the role of followers and the importance of engaging, energizing, and developing them.
- Significance: This shift reflects a recognition that effective leadership depends on the leader's ability to build strong relationships with their followers and create a supportive and inclusive environment.

Here are some examples of APA 7th edition references for potential sources related to these leadership topics. Note that the specific formatting may vary depending on the type of source (e.g., book, journal article, website) and whether it has a DOI.

Bourke, J., & Dillon, B. (2018). *The diversity & inclusion revolution: Eight global trends that will transform your business*. Deloitte.

Dinh, J. E., Lord, R. G., Gardner, W. L., Cha, J., & Chen, G. (2014). Leadership theory and research in the new millennium: Current theoretical trends and future directions. *The Leadership Quarterly*, 25(1), 36-63.

George, B. (2003). *Authentic leadership: Rediscovering the secrets to enduring value*. Jossey-Bass.

Greenleaf, R. K. (1970). *The servant as leader*. The Robert Greenleaf Center.

Hewlett, S. A., Marshall, M., & Sherbin, L. (2013). *How diversity can drive innovation*. Harvard Business Review, 91(12), 30.

Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., Holcombe Ehrhart, S., & Singh, A. (2018). Inclusive leadership: Innovative practices for diversity and inclusion at work. *Organizational Dynamics*, 47(3), 195-204.

Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Ehrhart, K. H., & Singh, A. (2018). Inclusive leadership: Past, present, and future. *Human Resource Management Review*, 28(2), 199-216.

THE LITERATURE CONFIRMS THE AI OVERVIEW

Leadership theory has evolved into a diverse range of models, each with its own conceptual foundations, uses and definitions (Barante, 2024). Following the AI Overview on June 22, 2025, we examined whether its list of leading leadership theories aligned with the most influential scholarship over the past two decades. We reviewed ten well-known frameworks: transformational, transactional, strategic, servant, ethical, authentic, spiritual, leader–member exchange (LMX), inclusive, and shared leadership, as identified in the AI Overview. We compared their influence in academia, as measured by the citation counts of their top three most cited works. Using the top three most cited publications for each theory helps ensure a fair and comparable view of scholarly impact. As the citation data was skewed and varied widely across theories, we selected the Kruskal-Wallis H test, a non-parametric method for comparison that does not assume a normal distribution, to test for statistically significant differences. The review confirms the face validity of the AI Overview of the leading leadership theories. Table 2 provides a comparative summary of these leadership frameworks, outlining their key constructs, documented outcomes, and factors contributing to their citation frequency.

TABLE 2
KEY CONSTRUCTS, KEY OUTCOMES, AND CITATION DRIVERS ACROSS
LEADERSHIP FRAMEWORKS

Leadership Style*	Core Constructs	Key Outcomes	Citation Drivers	Relevant Works
Transformational	Vision, charisma, inspiration	Innovation, psychological empowerment, engagement, organizational change	Broad applicability, strong empirical base	Bass & Riggio (2006); Gumusluoglu & Ilsev (2009); Wang et al. (2011); Pieterse et al. (2010)
Servant	Empowerment, humility, stewardship	Well-being, community impact, ethical behavior, OCB	Ethics and education research; rising popularity	Liden et al. (2008); Eva et al. (2019); Greenleaf (2013); Van Dierendonck (2011)
Ethical	Fairness, role modeling, integrity	Trust, ethical climate, employee voice	Business ethics, OB, HRM	Mayer et al. (2012); Brown & Treviño (2006); Brown et al. (2005)
LMX	Dyadic trust, respect, mutual obligation	OCB, commitment, job satisfaction	Micro-level OB and HR research	Ilies et al. (2007); Martin et al. (2016); Dulebohn et al. (2012)
Authentic	Self-awareness, transparency, moral perspective	Trust, engagement, moral identity, well-being	Values-driven leadership literature	Walumbwa et al. (2008); Avolio & Gardner (2005)

Leadership Style*	Core Constructs	Key Outcomes	Citation Drivers	Relevant Works
Strategic	Vision alignment, adaptive learning, foresight	Organizational performance, adoption, competitive advantage, change readiness	Strategy, top-management studies	Boal & Hooijberg (2001); Vera & Crossan (2004); Ireland & Hitt (2005); Carter & Greer (2013); Elenkov et al. (2005)
Shared	Distributed influence, collaboration, mutual support	Team performance, creativity, empowerment, collective efficacy	Team-based and project-driven fields	Carson et al. (2007); Pearce & Conger (2008); D’Innocenzo et al. (2016); Wang et al. (2014)
Spiritual	Calling, vision, altruistic love	Intrinsic motivation, well-being, sustainability, purposeful culture	Workplace spirituality, positive psychology	Fry (2003); Fry & Altman (2013); Fry & Slocum (2008)
Transactional	Contingent reward, rule enforcement	Task performance, compliance	Classical contrast theory, foundational citations	Bass & Riggio (2006) Pieterse et al. (2010)
Inclusive	Belongingness, uniqueness, psychological safety	Creativity, voice behavior, engagement., inclusion	DEI, HR, team inclusion literature	Randel et al. (2018); Shore et al. (2011); Carmeli et al. (2010); Hollander (2012)

*Note. Table content generated in part with assistance from *ChatGPT*, an AI language model developed by OpenAI (2025). The author reviewed, verified, and edited the content for accuracy and APA 7 compliance.

Leading Leadership Theory Synopsis

Among the theories identified in the AI Overview, transformational leadership has been a prominent model for decades, characterized by its emphasis on vision, charisma, and personalized consideration to motivate followers (Bass & Riggio, 2006; Gumusluoglu & Ilsev, 2009). Transactional leadership presents a distinct approach, emphasizing contingent rewards and management by exception to sustain performance (Pieterse et al., 2010). Strategic leadership functions at the broader organizational level, connecting executive vision and resource management to long-term competitive advantage (Ireland & Hitt, 2005). While transformational versus transactional leadership are frequently referenced throughout management and organizational behavior fields, citations of strategic leadership are mainly concentrated within strategic management and policy studies.

Our review also examined values-based approaches which form another influential group within the AI Overview’s selection of leadership theories. Ethical leadership stresses fairness, integrity, and leading by example, with key works by Brown, Treviño, and Harrison (2005) and Mayer et al. (2009) widely cited across many disciplines. Servant leadership centers on follower growth, humility, and stewardship (Liden et al., 2008; Van Dierendonck, 2011), while authentic leadership emphasizes self-awareness, transparency, and moral principles (Avolio & Gardner, 2005; Walumbwa et al., 2008). Spiritual leadership merges purpose and altruistic values, maintaining a smaller but growing presence in research connecting leadership to meaning and well-being (Fry & Slocum, 2008).

Our review also included relational and inclusion-oriented models identified in the AI Overview. Leader–member exchange (LMX) theory examines the quality of dyadic leader–follower relationships and

their impact on trust, job satisfaction, and organizational citizenship behaviors, with widely cited empirical support in leadership and organizational research (Ilies et al., 2007; Dulebohn et al., 2012). Inclusive leadership promotes a sense of belonging and values diversity, thereby fostering psychological safety and knowledge sharing within teams (Carmeli et al., 2010; Randel et al., 2018). Shared leadership shares authority among team members, boosting creativity, decision-making, and performance in collaborative settings (Carson et al., 2007; Wang et al., 2014). Although these models differ in their scope of application, each demonstrates significant citation influence within its main domain, justifying systematic comparison.

In reviewing the AI Overview's selection of leadership theories, we observed thematic connections that may affect their scholarly reach and citation patterns. Values-based models, such as servant, ethical, authentic, and spiritual leadership, highlight moral principles and ethical behavior, concepts that strongly resonate in organizational ethics and human resource management literature, potentially extending their disciplinary influence. Transformational, servant, and inclusive leadership emphasize psychological empowerment and internal motivation, themes aligned with employee engagement and performance research that may boost their citation rates in practical settings. Trust and the quality of leader–follower relationships, key to LMX, servant, ethical, and inclusive leadership, connect these theories to the extensive literature on organizational citizenship behavior. Meanwhile, transformational, strategic, and shared leadership are frequently cited in relation to innovation and adaptability, whereas servant, authentic, and spiritual leadership are prominent in studies on employee well-being and commitment. The increasing recognition of distributed influence and teamwork in shared and inclusive leadership reflects a shift toward participatory organizational practices, which has gained attention in recent leadership scholarship. By digging into these themes and comparing how often each theory is cited, this study aims to find out if a theory's focus actually influences the academic footprint.

THE DATA DESCRIPTION

This study's data analysis consisted of 40 observations per leadership topic, totaling 400 observations of citation data. The first 40 articles which appeared in a Google Scholar search was recorded. The search was conducted for articles that included the exact leadership topic in the title; for example, we searched for terms in quotation marks, such as "Transformational Leadership," "Servant Leadership," and "Authentic Leadership," and found 16,400, 9,170, and 4,650 search results, respectively. The period was from 2005 to 2024. Therefore, 10×40 equals 400 rows of data for 10 independent groups (leadership topics). For each of the leadership topics, we gathered the first 40 rows of "Cited by" data in terms of unique citation counts for each topic. Initially, there were 17 possible independent variables and one dependent variable, as shown in Table 3. Data were gathered from Google Scholar on June 22, 2025 by copying and pasting the search results pages directly to an Excel file. Data were rank ordered by search results, and the top 10 results were classified into Tier 1 and Tier 2 in order to truncate the data for statistical purposes, explained later in this study. Data were cleaned and organized for export to SPSS 28.0 for analyses.

TABLE 3
RANK ORDERED LISTING OF 17 LEADERSHIP TOPICS (SEARCH RESULTS) AND THE
DEPENDENT VARIABLE (CITED BY)

The 17 Possible Independent Variables (Search Results) Custom Search Period: from 2005 to 2024	The One Dependent Variable (Cited By)
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <ol style="list-style-type: none"> 1. *Transformational Leadership (16,500) 2. *Servant Leadership (9,170) 3. *Ethical Leadership (6,820) 4. Leader Member Exchange (4,690) 5. *Authentic Leadership (4,650) 6. Strategic Leadership (3,610) 7. *Shared Leadership (2,260) 8. Spiritual Leadership (2,200) 9. Transactional Leadership (1,980) 10. *Inclusive Leadership (1,750) 11. e-Leadership (1050) 12. Democratic Leadership (766) 13. Situational Leadership (765) 14. Contingency Leadership (699) 15. Laissez-fair Leadership (223) 16. Autocratic Leadership (214) 17. Path-Goal Leadership (127) </div> <div style="width: 35%; text-align: center;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Tier 1 Topics = 41,830 results </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Tier 2 Topics = 11, 800 results </div> <div style="border: 1px solid black; padding: 5px;"> Bottom 7 Topics = 3,844 results </div> </div> </div>	<p>Cited By counts for 40 articles for each of the 10 independent variables is the measure of comparison.</p> <p>Measurement was the number of citations for 40 articles for each of the 10 independent variables: 40 x 10 = 400 rows of raw citation data (Cited by).</p> <p>Kruskal Wallis is the test when the assumption of normal distribution is violated and there more than three independent groups.</p>

*Denotes that the leadership topic is also shown in the AI Overview summary.

RESULTS OF THE KRUSKAL WALLIS H TESTS

A Kruskal-Wallis H test was used to compare the median differences in Google Cited By counts, a measure of citations, among the top 10 leadership topics based on a rank order of the Google search results, as shown in Table 3. We surmised the data would violate the normal distribution requirement for One-Way ANOVA based on the visible skewness of the Cited By data. Table 4 shows the rank ordered Cited By data for all 10 leadership groups and the skewness appears obvious. For example, one search result in the transformational leadership column had 22,138 citations; while another result in the strategic leadership column had just 1 citation. There are many factors that contribute to the skewness observed in the Cited By data. The age of an article directly correlates with higher citation counts: In fact, Jorge Hirsch attempted to control for this problem with his now broadly accepted h-index, originally meant to measure a faculty's impact and intellectual productivity in physics (Hirsch, 2005); celebrity authors too will influence citation rates; a journal's reputation certainly influences the citation rates of articles it publishes (Bell, 2013; Bell & Chong, 2010; Fei & Bell, 2013; Judge, et al, 2007; Singh, et al, 2007). The dependent variable (Cited By count) was subject to extreme scores, which makes it obvious that the assumption of homoscedasticity for ANOVA problematic for our data. Any experienced researcher could examine the data in Table 4 and observe the skewness. Extreme scores pull the mean in either direction.

TABLE 4
RANK ORDERED GOOGLE “CITED BY” RAW DATA WITH 40 CELLS PER TOPIC
(SEARCH RESULTS) IN THE TITLE OF THE ARTICLE

Transform (16,500)	Servant (9,170)	Ethical (6,820)	LMX (4,690)	Authentic (4,650)	*Demo- Control 1 (19,600)	Strategic (3,610)	Shared (2,260)	Spiritual (2,200)	Transaction (1,980)	Inclusive (1,750)	*Situ- Control 2 (15,600)
Cited By	Cited by	Cited By	Cited By	Cited By	Cited By	Cited By	Cited By	Cited by	Cited By	Cited By	Cited By
22138	15980	9183	2742	8906	681	999	3194	1636	1793	1837	488
3241	4386	6873	2244	6938	543	830	1300	1477	1715	1255	265
2995	3728	2460	1322	3759	253	491	1078	1313	1347	914	254
2335	2986	1938	920	2823	197	462	890	497	1280	678	172
1036	2577	1781	904	2588	155	429	712	469	1140	616	172
794	2104	1448	804	2539	132	427	685	348	1021	604	144
782	2047	1342	788	1489	123	415	616	320	999	507	130
754	1828	1055	615	1457	84	391	591	310	972	505	129
669	1722	1046	585	1174	81	357	579	305	775	345	127
645	1284	1025	560	1076	80	298	571	259	757	339	123
635	1071	923	501	1045	75	253	500	236	615	329	119
556	733	862	489	975	70	226	428	230	543	304	114
482	647	654	446	765	67	216	399	230	449	260	111
476	626	559	423	617	63	211	387	226	434	210	107
438	513	554	381	529	58	205	372	207	409	207	105
400	497	512	369	489	56	184	340	192	371	200	102
375	450	369	348	446	49	155	315	181	363	173	97
375	439	338	320	440	48	155	283	176	336	163	87
368	433	310	311	428	48	153	274	170	326	162	80
357	421	278	291	405	48	152	251	157	307	145	79
347	369	260	287	389	47	140	241	153	288	128	78
304	367	249	265	369	44	131	195	152	283	119	75
289	349	236	261	322	36	124	182	151	264	116	75
238	267	233	256	301	36	123	171	134	254	115	72
230	248	230	254	276	36	121	170	133	220	112	55
217	245	209	253	271	29	117	158	112	185	95	53
201	245	182	176	236	25	99	156	110	184	85	52
178	232	172	153	226	25	88	152	99	171	80	46
174	217	164	152	218	24	85	141	88	165	73	35
161	211	158	146	195	23	84	125	86	156	65	34
161	205	156	139	173	18	73	109	84	150	63	30
156	153	152	135	161	18	54	109	74	128	48	30
154	145	148	129	132	17	52	96	72	121	41	28
97	136	141	110	125	17	49	95	54	99	39	27
78	119	136	98	120	16	40	85	54	80	31	22
77	111	122	92	118	10	24	74	48	80	31	20
76	96	111	75	104	10	23	72	43	77	27	15
65	82	76	66	100	8	20	62	42	48	25	14
62	76	62	58	53	5	17	34	42	45	20	9
44	64	46	16	43	4	1	31	7	21	17	9
Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
43,160	48,409	36,753	18,484	42,820	3,359	8,474	16,223	10,677	18,971	11,083	3,784

*Both Control 1 and Control 2 variables represent Google Search results for “anywhere in the article.”

Fortunately, the Kruskal Wallis H test is a substitute for One-Way ANOVA when the data are non-parametric—violating the normal distribution assumption and three or more independent groups are being compared. Figures 1 and 2 are histograms of the data, which clearly show the homoscedasticity violation for the Tier 1 and Tier 2 data. Kruskal Wallis H Test requires at least five observations per independent group (Kruskal & Wallis, 1952); we had 40 observations per 10 independent groups of leadership theory topics. In order to check the face validity of the Google AI answer shown in Table 1 we compared “Cited By” counts for 10 topics confirmed in the literature to be legitimate leadership topics, verifying [AI found 10 leadership theories to be “leading topics in leadership over the past 20 years”].

FIGURE 1
HISTOGRAM OF THE TIER 1 DATA: VIOLATION OF THE HOMOGENEITY OF VARIANCE ASSUMPTION

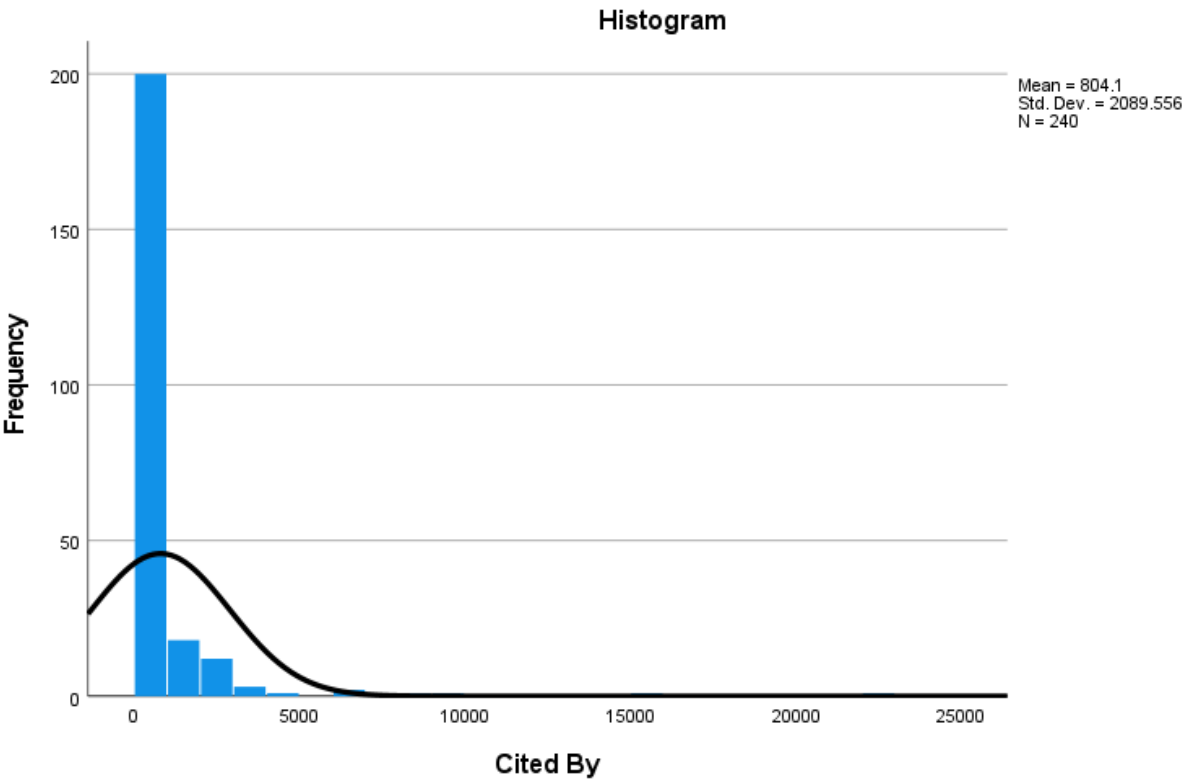
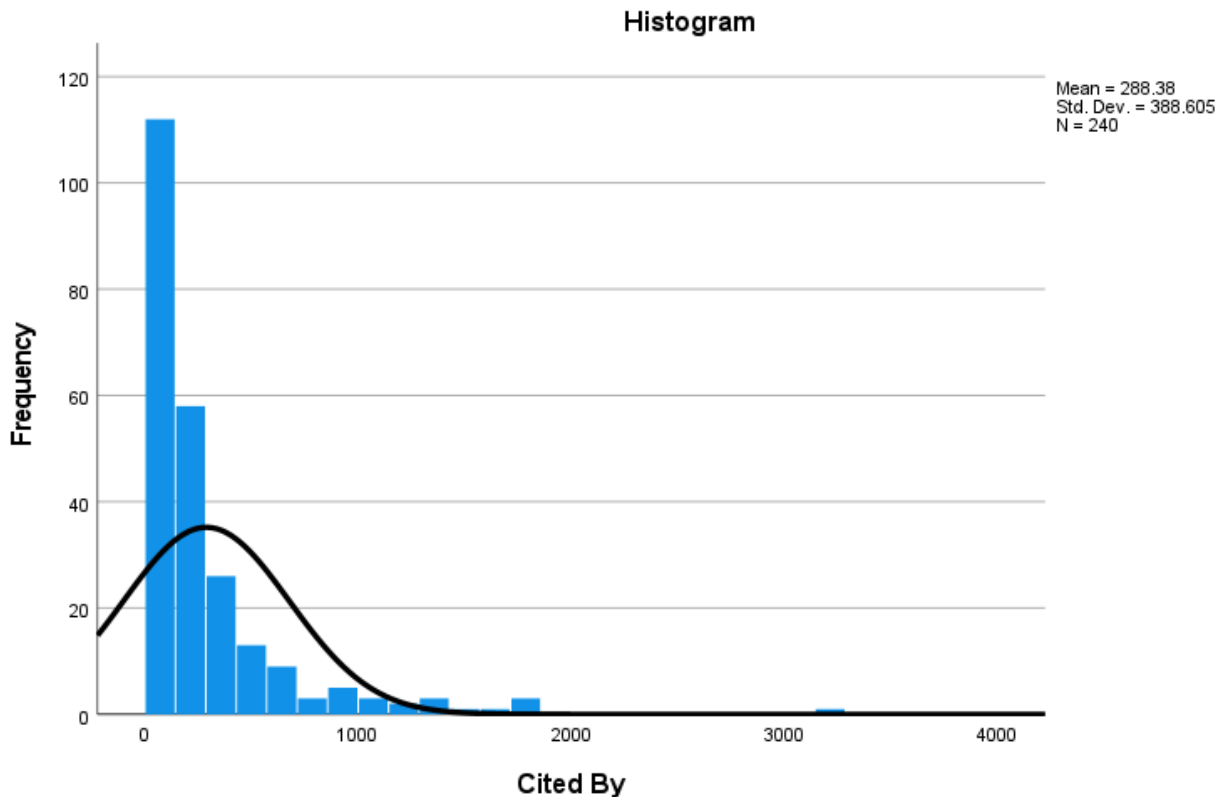


FIGURE 2
HISTOGRAM OF THE TIER 2 DATA: VIOLATION OF THE HOMOGENEITY OF
VARIANCE ASSUMPTION



Our review of the related literature strengthens the face validity of the AI Overview of the leading topics in leadership over the last twenty years: 2005-2024. However, statistical tests showed that there are scientific differences in the Cited By data, a much stronger claim than mere face validity. Because the search results showed that seven of the leadership topics had fewer than 1,500 search results, those areas were not considered for the Kruskal-Wallis tests as experimental groups in either Tier 1 or Tier 2. This cutoff was necessary and purely based on the need to truncate the data for statistical purposes. Too many independent variables in a Kruskal Wallis H Test can lead to a Type-I error; that is, when a researcher accepts a hypothesis as *true* when it is actually *false* (also known as the family-wise error). A more stringent confidence interval [$p < .01$] or fewer independent variable resolves the family-wise error problem.

Therefore, any topic with fewer than 1,500 Google search results was excluded from consideration as a Tier 1 or Tier 2 experimental group. We removed the following seven leadership topics as experimental groups: e-Leadership-1050 results, Democratic Leadership-766 results, Situational Leadership-765 results, Contingency Leadership-699 results, Laissez-Faire Leadership-223 results, Autocratic Leadership-214 results, and Path-Goal Leadership-127 results. However, Democratic Leadership and Situational Leadership were used as control groups (baselines) in Tier 1 and Tier 2 analyses, respectively: the two control variables (Democratic Leadership = Demo-Control 1) and (Situational Leadership = Situ-Control 2) were searched for in quotation marks anywhere in the article, and the rank order of the search results are shown in Table 4.

The data was coded, cleaned, and prepared for export to SPSS 28.0, where the tests were run and data outputs were created for analysis. Table 4 shows the rank ordered raw data with Google Cited By counts for each of the remaining 10 leadership topics, which includes the search results totals. All the cleaned data used for data analyses in this study is shown in Table 4. The Excel file, which includes the actual pages

copied directly from Google Scholar on June 22, 2025, is available upon request. No IRB approval is required for this study by the institution where the study took place. Data found in Table 4 were analyzed using SPSS 28.0.

TWO NULL HYPOTHESES

Two null hypotheses were tested, based on the theory that all leadership theory topics are the same and that there is no meaningful difference among their Google Cited By medians. We surmised that if both null hypotheses are accepted, our theory has a major weakness; we would be able to argue that the inclusion of a leading leadership topic in the article title has no effect on the median citation counts, regardless of the leadership topic or the presence of a control group. On the other hand, if we could reject either of the two null hypotheses, we could argue that placing the leadership topic in the article title is a prudent way to achieve a greater degree of scientific impact for one or more of the leadership topics. Eta Squared was also used to measure the effect size.

Because we also compared the top 5 leadership topics (Shown as Tier 1 in Table 3), based on the rank order of the Google results, we can rule out a Type-I Error having an undue influence on the medians compared across the independent groups because we truncated the data to avoid the family-wise error problem. The Bonferroni correction also reduced this problem. Drummond and Vowler (2012) wrote: “*The usual solution proposed to the problem imposed by the multiple tests is to impose a more stringent threshold for ‘significance’. The advantage is that we are less likely to have false positive classifications. The disadvantage is equally clear: with a more stringent criterion, we will fail to detect occasions where the null hypothesis is not ‘true’*” (para). Reducing 10 independent variables into Tier 1 and Tier 2 with only five experimental variables for each tier greatly reduced the risk. Reducing the total number of experimental variables from 10 to 5 reduced the likelihood of a Type-I Error in the hypotheses testing.

Tests Results for Hypotheses 1

HO₁: *There will be no difference in the median Google Cited By counts among the five Tier 1 experimental variables and the control group when the five experimental variables are searched for “in the title of the article” and the control group is searched for “anywhere in the article.”*

We were able to reject HO₁. There is a difference in the median Google Cited By counts among the five Tier 1 experimental variables and the control group when the five experimental variables are searched for “in the title of the article” and the control group is searched for “anywhere in the article.” All other variables differed with the control group but did not differ between each other, as can be seen in the Pairwise Comparison Table 5. Figure 3 and Figure 4 show the box plot and the pairwise comparison nodes diagram. When experimental variables Transformational Leadership = 1, Servant Leadership = 2, Ethical = 3, Leader-Member Exchange = 4, and Authentic Leadership = 5 were compared to a control variable Demo-Control 1 = 6, the Kruskal Wallis H Test was $H(5, 240) = 71.242, p < .001$. The effect size is large with $\eta^2 \approx 0.283$. The control group (baseline) was the result of a Google Scholar search for the article title, which was designed to test our theory that a leadership topic included in the title would result in significantly more citations. To calculate the effect size (Eta squared) for a Kruskal-Wallis H test, we used the formula:

$$\eta^2[H] = (H - k + 1) / (n - k)$$

where: H is the Kruskal-Wallis H statistic.

k is the number of groups.

n is the total number of observations.

In this case:

$$H = 71.242$$

$$N = 240$$

$$k = 6$$

Therefore:

$$\eta^2[H] = (71.242 - 6 + 1) / (240 - 6)$$

$$\eta^2[H] = 66.242 / 234$$

$$\eta^2[H] \approx \text{is approximately equal to } \approx 0.283$$

This value suggests a large effect size, based on common interpretations where eta-squared values greater than or equal to 0.14 indicate a large effect.

TABLE 5
KRUSKAL WALLIS PAIRWISE COMPARISONS OF GROUPS FOR THE TIER 1 LEADERSHIP THEORY TOPICS

Pairwise Comparisons of Groups					
Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a
6-4	88.388	15.524	5.694	<.001	.000
6-1	95.063	15.524	6.124	<.001	.000
6-3	99.000	15.524	6.377	<.001	.000
6-5	108.038	15.524	6.959	<.001	.000
6-2	108.263	15.524	6.974	<.001	.000
4-1	6.675	15.524	.430	.667	1.000
4-3	10.613	15.524	.684	.494	1.000
4-5	-19.650	15.524	-1.266	.206	1.000
4-2	19.875	15.524	1.280	.200	1.000
1-3	-3.937	15.524	-.254	.800	1.000
1-5	-12.975	15.524	-.836	.403	1.000
1-2	-13.200	15.524	-.850	.395	1.000
3-5	-9.037	15.524	-.582	.560	1.000
3-2	9.262	15.524	.597	.551	1.000
5-2	.225	15.524	.014	.988	1.000
Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.					
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.					
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.					

FIGURE 3
BOX PLOT FOR THE FIVE TIER 1 EXPERIMENTAL VARIABLES AND DEMO-CONTROL 1

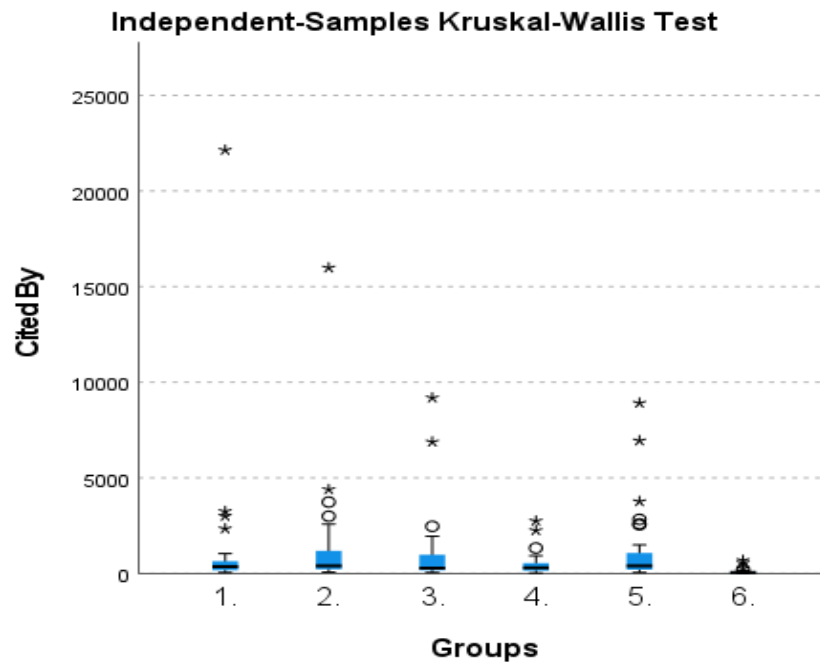
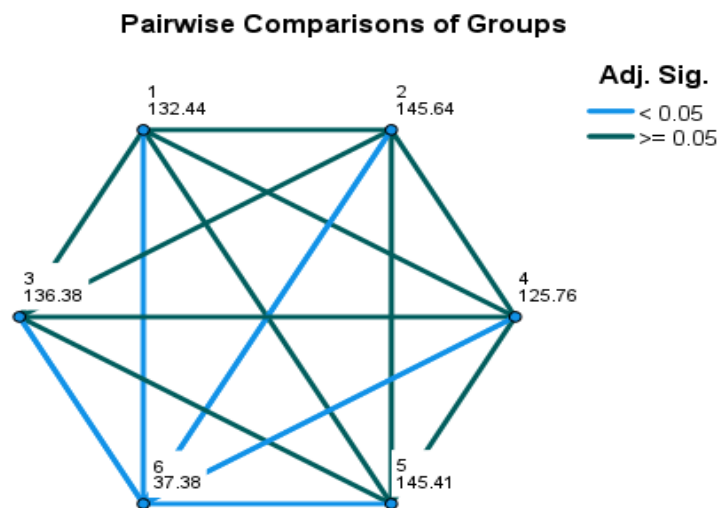


FIGURE 4
PAIRWISE COMPARISON OF TIER 1 GROUPS NODES DIAGRAM



Each node shows the sample average rank of Groups.

HO₂: *There will be no difference in the median Google Cited By counts among the five Tier 2 experimental variables and the control group when the five experimental variables are searched for “in the title of the article” and the control group is searched for “anywhere in the article.”*

We were able to reject H_{O2} . There is a difference in the median Google Cited By counts among the five Tier 2 experimental variables and the control group when the five experimental variables are searched for “in the title of the article” and the control group is searched for “anywhere in the article.” All other variables differed with the control group, as can be seen in the Pairwise Comparison Table 5. Figure 5 and Figure 6 show the box plot and the pairwise comparison nodes diagram. There was a difference in the median Google Cited By counts among the five Tier 2 experimental variables: Strategic Leadership = 7, Shared Leadership = 8, Spiritual Leadership = 9, Transactional leadership = 10, Inclusive Leadership = 11, and Situ-Control 2 = 12, with $H(5, 240) = 42.866$, $p < .001$.

All other variables differed with the control group (baseline), as can be seen in the Pairwise Comparison Table 6. The experimental variable Transactional Leadership differed significantly from the other experimental variables: Strategic ($p = .003$), Spiritual ($p = .012$), and Inclusive ($p = .005$). The only other difference between the experimental variables was that Shared Leadership differed from Inclusive Leadership ($p = .035$) and Strategic Leadership ($p = .025$). The Bonferroni adjustment eliminated those differences among experimental variables, except between Strategic Leadership and Transactional Leadership (Adj. $p = .046$). Despite this minor difference, nearly all the uniqueness in the data can be attributed to the differences between the control group, Situ-Control 2, and the five experimental variables. Figure 4 and Figure 5 show the box plot and the pairwise comparison nodes diagram. The effect size was large with $\eta^2 \approx 0.162$. Effect size was calculated and interpreted based on the Eta Squared value. To calculate the effect size (Eta squared) for a Kruskal-Wallis H test, we used the formula:

$$\eta^2[H] = (H - k + 1) / (n - k)$$

where: H is the Kruskal-Wallis H statistic.
 k is the number of groups.
 n is the total number of observations.

In this case:

$$H = 42.866$$

$$N = 240$$

$$k = 6$$

Therefore:

$$\eta^2[H] = (42.866 - 6 + 1) / (240 - 6)$$

$$\eta^2[H] = 37.866 / 234$$

$$\eta^2[H] \approx \text{is approximately equal to } \approx 0.162$$

This value suggests a large effect size based on common interpretations, where eta-squared values greater than or equal to 0.14 indicate a large effect.

TABLE 6
KRUSKAL WALLIS RESULTS FOR THE 5 TIER 2 EXPERIMENTAL VARIABLES AND
SITU-CONTROL 2

Pairwise Comparisons of Groups					
Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a
12-7	45.975	15.524	2.962	.003	.046
12-11	47.988	15.524	3.091	.002	.030
12-9	52.988	15.524	3.413	<.001	.010
12-8	80.713	15.524	5.199	<.001	.000
12-10	91.913	15.524	5.921	<.001	.000
7-11	-2.012	15.524	-.130	.897	1.000
7-9	-7.012	15.524	-.452	.651	1.000
7-8	-34.737	15.524	-2.238	.025	.379
7-10	-45.937	15.524	-2.959	.003	.046
11-9	5.000	15.524	.322	.747	1.000
11-8	32.725	15.524	2.108	.035	.525
11-10	43.925	15.524	2.830	.005	.070
9-8	27.725	15.524	1.786	.074	1.000
9-10	-38.925	15.524	-2.507	.012	.182
8-10	-11.200	15.524	-.721	.471	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is .050.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

FIGURE 5
BOX PLOT FOR THE FIVE TIER 2 EXPERIMENTAL VARIABLES AND DEMO-CONTROL 2

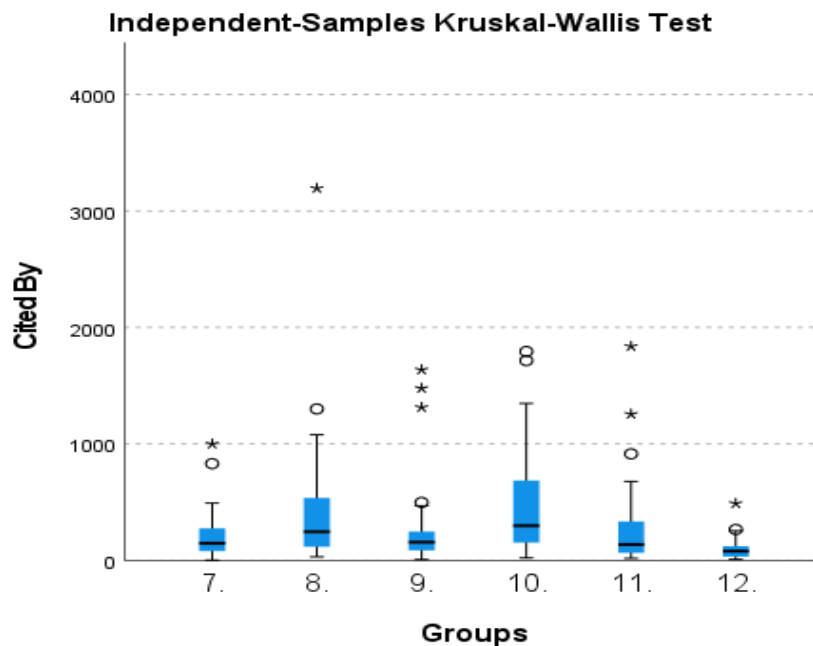
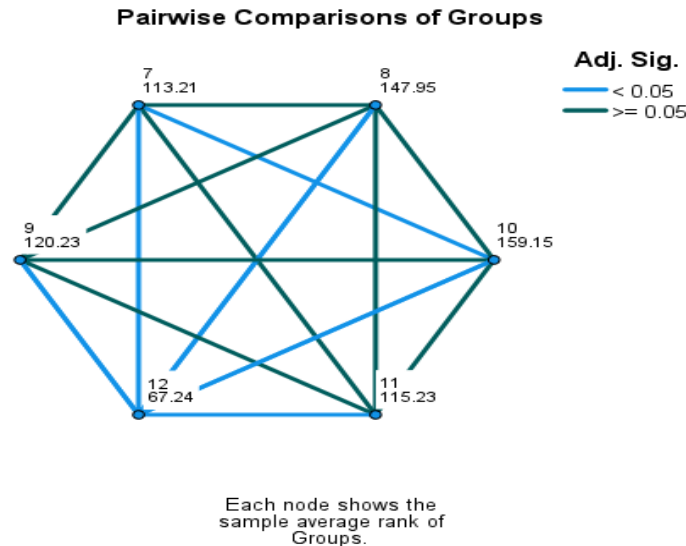


FIGURE 6
PAIRWISE COMPARISON OF TIER 2 GROUPS NODES DIAGRAM



KEY TAKEAWAYS FROM TIER 1 ANALYSIS

The theory appears to hold for Tier 1 data. The pair-wise comparisons showed all five experimental variables had significantly more citations than the control group. On the other hand, none of the experimental variables differed among each other. The control group had 19,600 search results (anywhere in the article) which did not appear to influence its first 40 search results when compared to the first 40 search results for the other five leadership topics. Recall that democratic leadership had only 766 search results for that topic “in the title of the article.” The effect size was calculated and interpreted base on the Eta Squared value (see Tomczak & Tomczak, 2014, p. 24 for specifics).

Table 7 is the Kruskal Wallis H Test data from SPSS 28.0 output which shows the means by rank, the $H(5, 240) = 71.242$, with $p < .001$. The Median Test ($Mdn = 255$) indicates that Demo-Control 1 (used as the baseline) has 38 values below the median and 2 values above the median. This is very powerful evidence that including the leadership topic in the title of the article has a great impact on the citations of the article as opposed to the baseline of the topic showing up anywhere in the article. Therefore, it is advisable for the researcher to include the leadership topic in the article title. The relationship between the six variables and the measure of citations had a significant effect, accounting for 28.3% of the variance.

TABLE 7
KRUSKAL-WALLIS TEST WITH RANKED MEANS AND MEDIAN TEST SHOWING CHI-SQUARE FOR TIER 1

Ranks

	Groups	N	Mean Rank
Cited By	Transformational	40	132.44
	Servant	40	145.64
	Ethical	40	136.38
	LMX	40	125.76
	Authentic	40	145.41
	Demo-Control	40	37.38
	Total	240	

Test Statistics^{a,b}

	Cited By
Kruskal-Wallis H	71.242
df	5
Asymp. Sig.	<.001

a. Kruskal Wallis Test

b. Grouping Variable: Groups

Frequencies		Median Test					
		Groups:					
		Transformational	Servant	Ethical	LMX	Authentic	Demo-Control
Cited By	> Median	23	24	21	24	26	2
	<= Median	17	16	19	16	14	38

Test Statistics^a

	Cited By
N	240
Median	255.00
Chi-Square	40.200^b
df	5
Asymp. Sig.	<.001

a. Grouping Variable: Groups

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.

KEY TAKEAWAYS FROM TIER 2 ANALYSIS

The theory appears to hold for Tier 2 data. A meaningful difference is observed when comparing medians for the Tier 2 experimental variables and the control group variable. The pair-wise comparisons showed all five Tier 2 leadership theory topics had significantly more citations than the control group. The control group had 15,600 search results (anywhere in the article) which did not appear to influence its first 40 search results when compared to the first 40 search results for the other five leadership topics. Recall that situational leadership had only 765 search results for that topic “in the title of the article.”

Table 8 presents the Kruskal-Wallis H Test data from SPSS 28.0 output, which shows the means by rank. The $H(5, 240) = 42.866$, with $p < .001$. The Median Test ($Mdn = 153$) shows that the Situ-Control (as baseline) has 35 below the median and 5 above the median. This is very powerful evidence that including the leadership topic in the article title has a significant impact on the article's citations, as opposed to the baseline of the topic appearing anywhere in the article. Therefore, it behooves the researcher to include the

leadership topic in the title of the article even for the Tier 2 leadership topics. The relationship of the six variables and the measure of citations had a large effect accounting for 16.2% of the variance.

TABLE 8
KRUSKAL-WALLIS TEST WITH RANKED MEANS AND MEDIAN TEST SHOWING CHI-SQUARE FOR TIER 2

Groups	N	Mean Rank
Strategic	40	113.21
Shared	40	147.95
Spiritual	40	120.23
Transactional	40	159.15
Inclusive	40	115.23
Situ-Control	40	67.24
Total	240	

Test Statistics^{a,b}

	Cited By
Kruskal-Wallis H	42.866
df	5
Asymp. Sig.	<.001

a. Kruskal Wallis Test

b. Grouping Variable: Groups

Median Test

		Groups:				
Frequencies		Strategic	Shared	Spiritual	Transactional	Inclusive
> Median	18	27	20	30	19	5
<= Median	22	13	20	10	21	35

Test Statistics^a

	Cited By
N	240
Median	153.00
Chi-Square	37.886 ^b
df	5
Asymp. Sig.	<.001

a. Grouping Variable: Groups

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.8.

TWO RECOMMENDATIONS BASED ON OUR FINDINGS

Recommendation 1: Improve Leadership Research Titles for Greater Impact

Given the study's findings, which show notable differences in citation counts when leadership theory names appear in titles, future leadership research should intentionally include relevant, highly visible theory terms in article titles, while maintaining concise and accessible wording. Researchers should strategically choose title keywords that match their target scholarly audience (e.g., management, HR, ethics) and avoid overly narrow jargon that could restrict interdisciplinary reach. Professional development programs for doctoral students and early-career scholars could incorporate training on title creation based on bibliometric evidence.

Recommendation 2: Expand Citation Analysis to Additional Theories and Contexts

Future research should expand the Kruskal–Wallis comparative method to encompass a broader range of leadership theories, emerging models, and practical settings. For instance, examining citation trends of digital-era leadership models (e-leadership, agile leadership) or cross-cultural leadership frameworks could determine if the “title effect” seen in this study applies beyond the ten theories analyzed. Increasing the dataset with more sources (such as Scopus, Web of Science) and accounting for variables like article age, journal ranking, and author prominence would enhance external validity and offer valuable insights for scholars and editors. A field such as communication, with well-established areas of specialization, is a good target for future research of this type.

REFERENCES

- Al-Awqati, Q. (2006). A general theory of titles! *Kidney International*, 69(6), 947–948.
<https://doi.org/10.1038/sj.ki.5000255>
- Alimoradi, F., Javadi, M., Mohammadpoorasl, A., Moulodi, F., & Hajizadeh, M. (2016, March). The effect of key characteristics of the title and morphological features of published articles on their citation rates. *ALIS*, 63(1). Retrieved from <http://nopr.niscares.in/handle/123456789/33892>
- Argenti, P.A. (2014). *Corporate Communication*. Retrieved from <https://www.mheducation.com/highered/product/Corporate-Communication-Argenti.html>
- Avolio, B.J., & Gardner, W.L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315–338.
<https://doi.org/10.1016/j.leaqua.2005.03.001>
- Avolio, B.J., Sosik, J.J., Kahai, S.S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly*, 25(1), 105–131.
<https://doi.org/10.1016/j.leaqua.2013.11.003>
- Barante, D.M. (2024). The dynamics of leadership: A review and evaluation of leading theories. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(10), 2414–2434.
<https://doi.org/https://dx.doi.org/10.47772/IJRISS.2024.8100200>
- Bass, B.M., & Riggio, R.E. (2006). *Transformational Leadership* (0 ed.). Psychology Press.
<https://doi.org/10.4324/9781410617095>
- Bavdekar, A. (2020). *Communicating Science Effectively: When an Optimised Video Communication Enhances Comprehension, Pleasantness, and People's Interest in Knowing More About Scientific Findings*. Retrieved from https://www.researchgate.net/publication/331525689_Communicating_Science_Effectively_When_an_Optimised_Video_Communication_Enhances_Comprehension_Pleasantness_and_People's_Interest_in_Knowing_More_About_Scientific_Findings
- Bell, R. (2013). Management journals and the celebrity researcher effect on tiers. *Journal of Leadership, Accountability, and Ethics*, 10, 44–62.
- Bell, R.L., & Chong, H.G. (2010). A Caste and Class among the Relative Frequency of Faculty's Publications: A Content Analysis of Refereed Business Journals. *Journal of Leadership, Accountability and Ethics*, 8(1), 65–89.
- Bell, R.L., & Martin, J.S. (2019). *Managerial communication for organizational development*. Business Expert Press.
- Bennett, M.J. (1998). *Intercultural Communication: A Current Perspective*. Intercultural Press.
- Biglan, A. (1973). The characteristics of subject matter in different academic areas. *Journal of Applied Psychology*, 57(3), 195–203. <https://doi.org/10.1037/h0034701>
- Bleyer, A. (2021). Examining Title Characteristics and Their Influence on Academic Engagement. *Journal of Research Metrics*, 10(3), 200–215.
- Boal, K., & Hooijberg, R. (2001) Strategic Leadership Research; Moving On. *Leadership Quarterly*, 11, 515–549. [http://dx.doi.org/10.1016/S1048-9843\(00\)00057-6](http://dx.doi.org/10.1016/S1048-9843(00)00057-6)
- Bourke, J., & Dillon, B. (2018). *The diversity and inclusion revolution*.

- Brown, M.E., & Treviño, L.K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, 17(6), 595–616. <https://doi.org/10.1016/j.leaqua.2006.10.004>
- Brown, M.E., Treviño, L.K., & Harrison, D.A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117–134. <https://doi.org/10.1016/j.obhdp.2005.03.002>
- Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive Leadership and Employee Involvement in Creative Tasks in the Workplace: The Mediating Role of Psychological Safety. *Creativity Research Journal*, 22(3), 250–260. <https://doi.org/10.1080/10400419.2010.504654>
- Carson, J.B., Tesluk, P.E., & Marrone, J.A. (2007). Shared Leadership in Teams: An Investigation of Antecedent Conditions and Performance. *Academy of Management Journal*, 50(5), 1217–1234. <https://doi.org/10.5465/amj.2007.20159921>
- Carter, S.M., & Greer, C.R. (2013). Strategic Leadership: Values, Styles, and Organizational Performance. *Journal of Leadership & Organizational Studies*, 20(4), 375–393. <https://doi.org/10.1177/1548051812471724>
- Chamorro-Padial, J., & Rodríguez-Sánchez, R. (2023). The relevance of title, abstract, and keywords for scientific paper quality and potential impact. *Multimedia Tools and Applications*, 82(15), 23075–23090. <https://doi.org/10.1007/s11042-023-14451-9>
- Chokshi, F.H., Kang, J., Kundu, S., & Castillo, M. (2016). Bibliometric Analysis of Manuscript Title Characteristics Associated With Higher Citation Numbers: A Comparison of Three Major Radiology Journals, AJNR, AJR, and Radiology. *Current Problems in Diagnostic Radiology*, 45(6), 356–360. <https://doi.org/10.1067/j.cpradiol.2016.03.002>
- Christensen, N.B., Kume, H., & Autorino, R. (2009). How to write titles and abstracts for readers. *International Journal of Urology*, 16(1), 2–3. <https://doi.org/10.1111/j.1442-2042.2008.02228.x>
- Contreras, F., Baykal, E., & Abid, G. (2020). E-Leadership and Teleworking in Times of COVID-19 and Beyond: What We Know and Where Do We Go. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.590271>
- Cornelissen, J. (2020). *Corporate Communication: A Guide to Theory and Practice—SAGE Publications Ltd—Torrossa*. Retrieved from <https://www.torrossa.com/en/resources/an/5730568>
- Cortés, C. (2013). *Intercultural Communication*. <https://doi.org/10.4135/9781452276274.n459>
- DeVito, J.A. (2007). *The Interpersonal Communication Book*.
- Diener, R. (1984). Informational dynamics of journal article titles. *Journal of the American Society for Information Science*. Retrieved from <https://asistdl.onlinelibrary.wiley.com/doi/abs/10.1002/asi.4630350405>
- D’Innocenzo, L., Mathieu, J.E., & Kukenberger, M.R. (2016). A Meta-Analysis of Different Forms of Shared Leadership–Team Performance Relations. *Journal of Management*, 42(7), 1964–1991. <https://doi.org/10.1177/0149206314525205>
- Dorta-González, P., & Santana-Jiménez, Y. (2018). *Characterizing the highly cited articles: A large-scale bibliometric analysis of the top 1% most cited research* (Version 1). arXiv. <https://doi.org/10.48550/ARXIV.1804.10436>
- Drummond, G.B., & Vowler, S.L. (2012). Type I: Families, planning and errors. *The Journal of Physiology*, 590(20), 4971–4974. <https://doi.org/10.1113/jphysiol.2012.244061>
- Dulebohn, J.H., Bommer, W.H., Liden, R.C., Brouer, R.L., & Ferris, G.R. (2012). A Meta-Analysis of Antecedents and Consequences of Leader-Member Exchange: Integrating the Past With an Eye Toward the Future. *Journal of Management*, 38(6), 1715–1759. <https://doi.org/10.1177/0149206311415280>
- Dumdum, U.R., Lowe, K.B., & Avolio, B.J. (2013). A Meta-Analysis of Transformational and Transactional Leadership Correlates of Effectiveness and Satisfaction: An Update and Extension. In *Transformational and Charismatic Leadership: The Road Ahead 10th Anniversary Edition*, 5(0). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-357120130000005008>

- Ebrahim, N.A., Salehi, H., Embi, M.A., Tanha, F.H., Gholizadeh, H., & Motahar, S.M. (2014). Visibility and Citation Impact. *International Education Studies*, 7(4), 120.
<https://doi.org/10.5539/ies.v7n4p120>
- Elenkov, D.S., Judge, W., & Wright, P. (2005). Strategic leadership and executive innovation influence: An international multi-cluster comparative study. *Strategic Management Journal*, 26(7), 665–682. <https://doi.org/10.1002/smj.469>
- Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R.C. (2019). Servant Leadership: A systematic review and call for future research. *The Leadership Quarterly*, 30(1), 111–132.
<https://doi.org/10.1016/j.leaqua.2018.07.004>
- Fei, Q., & Bell, R. (2013). Marketing journal ranking, celebrity authors, and the diminishing quality gap. *Mustang Journal of Management & Marketing*, 3, 16–30.
- Fox, C.W., & Burns, C.S. (2015). The relationship between manuscript title structure and success: Editorial decisions and citation performance for an ecological journal. *Ecology and Evolution*, 5(10), 1970–1980. <https://doi.org/10.1002/ece3.1480>
- Fry, L., & Altman, Y. (2016). *Spiritual Leadership* (pp. 1–6). https://doi.org/10.1007/978-3-319-31816-5_2353-1
- Fry, L.W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693–727.
<https://doi.org/10.1016/j.leaqua.2003.09.001>
- Fry, L.W., & Slocum, J.W. (2008). Maximizing the Triple Bottom Line through Spiritual Leadership. *Organizational Dynamics*, 37(1), 86–96. <https://doi.org/10.1016/j.orgdyn.2007.11.004>
- Fry, L.W., Vitucci, S., & Cedillo, M. (2005). Spiritual leadership and army transformation: Theory, measurement, and establishing a baseline. *The Leadership Quarterly*, 16(5), 835–862.
<https://doi.org/10.1016/j.leaqua.2005.07.012>
- Gang Wang, Oh, I.-S., Courtright, S.H., & Colbert, A.E. (2011). Transformational Leadership and Performance Across Criteria and Levels: A Meta-Analytic Review of 25 Years of Research. *Group & Organization Management*, 36(2), 223–270.
<https://doi.org/10.1177/1059601111401017>
- George, B. (2003). *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value*. Harvard Business School. Retrieved from <https://www.hbs.edu/faculty/Pages/item.aspx?num=16246>
- Gichuki, D. (2024). The Role of Scientific Titles in Shaping Research Visibility and Citations. *International Journal of Research and Innovation in Applied Science*, 9(10), 511–515.
<https://doi.org/10.51584/IJRIAS.2024.910046>
- Greenleaf, R. (1970). The Servant as Leader. *Robert K. Greenleaf*. Retrieved from <https://greenleaf.org/product/the-servant-as-leader/>
- Greenleaf, R. (2013). *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness*. Paulist Press.
- Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of Business Research*, 62(4), 461–473.
<https://doi.org/10.1016/j.jbusres.2007.07.032>
- Habibzadeh, F., & Yadollahie, M. (2010). Are Shorter Article Titles More Attractive for Citations? Cross-sectional Study of 22 Scientific Journals. *Croatian Medical Journal*, 51(2), 165–170.
<https://doi.org/10.3325/cmj.2010.51.165>
- Haggan, M. (2004). Research paper titles in literature, linguistics and science: Dimensions of attraction. *Journal of Pragmatics*, 36(2), 293–317. [https://doi.org/10.1016/S0378-2166\(03\)00090-0](https://doi.org/10.1016/S0378-2166(03)00090-0)
- Harris, T.E., & Sherblom, J.C. (2018). *Small Group and Team Communication: Fifth Edition*. Waveland Press.
- Hartley, J. (2007). Planning that title: Practices and preferences for titles with colons in academic articles. *Library & Information Science Research*, 29(4), 553–568.
<https://doi.org/10.1016/j.lisr.2007.05.002>

- Heard, S.B., Cull, C.A., & White, E.R. (2023). If this title is funny, will you cite me? Citation impacts of humour and other features of article titles in ecology and evolution. *FACETS*, 8, 1–15. <https://doi.org/10.1139/facets-2022-0079>
- Hewlett, S.A., Marshall, M., & Sherbin, L. (n.d.). How Diversity Can Drive Innovation. *Harvard Business Review*. Retrieved from <https://hbr.org/2013/12/how-diversity-can-drive-innovation>
- Hirsch, J.E. (2005). *An index to quantify an individual's scientific research output*. <https://doi.org/10.1073/pnas.0507655102>
- Hollander, E. (2012). *Inclusive Leadership: The Essential Leader-Follower Relationship*. Routledge.
- Ilies, R., Nahrgang, J.D., & Morgeson, F.P. (2007). Leader-member exchange and citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 92(1), 269–277. <https://doi.org/10.1037/0021-9010.92.1.269>
- Ireland, R.D., & Hitt, M.A. (2005). Achieving and maintaining strategic competitiveness in the 21st century: The role of strategic leadership. *Academy of Management Perspectives*, 19(4), 63–77. <https://doi.org/10.5465/ame.2005.19417908>
- Jaca-Madariaga Ominetti, M., Zarrabeitia Bilbao, E., Rio-Belver, R.M., & Ruiz de la Torre Acha, A. (2024). Is the Impact of Management Research Predictable Through the Title? - A BERT Model to Find a Response. *Proceedings of the 17th International Conference on Industrial Engineering and Industrial Management (ICIEIM) – XXVII Congreso de Ingeniería de Organización (CIO2023)*. *CIO 2023*, 379–384. https://doi.org/10.1007/978-3-031-57996-7_65
- Jacques, T.S., & Sebire, N.J. (2010). The Impact of Article Titles on Citation Hits: An Analysis of General and Specialist Medical Journals. *JRSM Short Reports*, 1(1), 1–5. <https://doi.org/10.1258/shorts.2009.100020>
- Jamali, H.R., & Nikzad, M. (2011). Article title type and its relation with the number of downloads and citations. *Scientometrics*, 88(2), 653–661. <https://doi.org/10.1007/s11192-011-0412-z>
- Judge, T.A., Cable, D.M., Colbert, A.E., & Rynes, S.L. (2007). What causes a management article to be cited—Article, author, or journal? *Academy of Management Journal*, 50(3), 491–506. <https://doi.org/10.5465/AMJ.2007.25525577>
- Klapper, J.T. (1960). *The effects of mass communication* (pp. xii, 302). Free Press.
- Kohnen, J. (2005). Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value. *Quality Management Journal*, 12(4), 58–59. <https://doi.org/10.1080/10686967.2005.11919272>
- Kruskal, W.H., & Wallis, W.A. (1952). Use of Ranks in One-Criterion Variance Analysis. *Journal of the American Statistical Association*, 47(260), 583–621. <https://doi.org/10.1080/01621459.1952.10483441>
- Leithwood, K., & Jantzi, D. (1990). *Transformational Leadership: How Principals Can Help Reform School Cultures*. (Non-Journal ED323622; p. 49). ERIC.
- Letchford, A., Moat, H.S., & Preis, T. (2015). The advantage of short paper titles. *Royal Society Open Science*, 2(8), 150266. <https://doi.org/10.1098/rsos.150266>
- Lewison, G., & Hartley, J. (2005). What's in a title? Numbers of words and the presence of colons. *Scientometrics*, 63(2), 341–356. <https://doi.org/10.1007/s11192-005-0216-0>
- Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). E-Leadership through Strategic Alignment: An Empirical Study of Small- and Medium-sized Enterprises in the Digital Age. *Journal of Information Technology*, 31(2), 185–206. <https://doi.org/10.1057/jit.2016.10>
- Liden, R.C., Wayne, S.J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The Leadership Quarterly*, 19(2), 161–177. <https://doi.org/10.1016/j.leaqua.2008.01.006>
- Locker, K.O. (1998). The Role of The Association for Business Communication in Shaping Business Communication as an Academic Discipline. *The Journal of Business Communication* (1973), 35(1), 14–44. <https://doi.org/10.1177/002194369803500102>
- Lull, J. (2000). *Media, Communication, Culture: A Global Approach*. Columbia University Press.

- Maksudul Shadat Akash. (2024). The Impact of Using the “Dr.” Title: Personal, Philosophical, and Societal Considerations. *World Journal of Advanced Research and Reviews*, 24(3), 1080–1084. <https://doi.org/10.30574/wjarr.2024.24.3.3772>
- Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader–Member Exchange (LMX) and Performance: A Meta-Analytic Review. *Personnel Psychology*, 69(1), 67–121. <https://doi.org/10.1111/peps.12100>
- Martínez, A., & Mammola, S. (2021). Specialized terminology reduces the number of citations of scientific papers. *Proceedings of the Royal Society B: Biological Sciences*, 288(1948), rspb.2020.2581, 20202581. <https://doi.org/10.1098/rspb.2020.2581>
- Mayer, D.M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. (Bombie). (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes*, 108(1), 1–13. <https://doi.org/10.1016/j.obhdp.2008.04.002>
- McCleskey, J.A. (2014). Situational, Transformational, and Transactional Leadership and Leadership Development. *Journal of Business Studies Quarterly*, 5(4), 117–130.
- Meuser, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The Leadership Quarterly*. <https://doi.org/10.1016/J.LEAQUA.2013.11.005>
- Milojević, S. (2017). The Length and Semantic Structure of Article Titles—Evolving Disciplinary Practices and Correlations with Impact. *Frontiers in Research Metrics and Analytics*, 2. <https://doi.org/10.3389/frma.2017.00002>
- Moore, A. (2010). What’s in a title? A two-step approach to optimisation for man and machine: Writing good titles is a crucial part of optimising articles’ chances of being peer reviewed, and later found in the literature via Google: here are some tips.... *BioEssays*, 32(3), 183–184. <https://doi.org/10.1002/bies.201090009>
- Mumby, D.K., & Stohl, C. (1996). Disciplining Organizational Communication Studies. *Management Communication Quarterly*, 10(1), 50–72. <https://doi.org/10.1177/0893318996010001004>
- Nagano, R. (2009). Lexical comparison of journal article titles in soft disciplines. *Porta Lingua*, 2009.
- Nagano, R.L. (2015). Research Article Titles and Disciplinary Conventions: A Corpus Study of Eight Disciplines. *Journal of Academic Writing*, 5(1), Article 1. <https://doi.org/10.18552/joaw.v5i1.168>
- Nair, L.B. (2018). *Appraising Scholarly Impact Using Directed Qualitative Content Analysis: A Study of Article Title Attributes in Management Research*. SAGE Publications Ltd. <https://doi.org/10.4135/9781526444141>
- Paiva, C.E., Lima, J.P.D.S.N., & Paiva, B.S.R. (2012). Articles with short titles describing the results are cited more often. *Clinics*, 67(5), 509–513. [https://doi.org/10.6061/clinics/2012\(05\)17](https://doi.org/10.6061/clinics/2012(05)17)
- Pieterse, A.N., van Knippenberg, D., Schippers, M., & Stam, D. (2010). Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *Journal of Organizational Behavior*, 31(4), 609–623. <https://doi.org/10.1002/job.650>
- Pottier, P., Lagisz, M., Burke, S., Drobniak, S.M., Downing, P.A., Macartney, E.L., ... Nakagawa, S. (2024). Title, abstract and keywords: A practical guide to maximize the visibility and impact of academic papers. *Proceedings of the Royal Society B: Biological Sciences*, 291(2027), 20241222. <https://doi.org/10.1098/rspb.2024.1222>
- Randel, A.E., Galvin, B.M., Shore, L.M., Ehrhart, K.H., Chung, B.G., Dean, M.A., ... Singh, A. (2018). Inclusive leadership: Innovative practices for diversity and inclusion at work. *Organizational Dynamics*.
- Randel, A.E., Galvin, B.M., Shore, L.M., Ehrhart, K.H., Chung, B.G., Dean, M.A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review*, 28(2), 190–203. <https://doi.org/10.1016/j.hrmr.2017.07.002>
- Rossi, M.J., & Brand, J.C. (2020). Journal Article Titles Impact Their Citation Rates. *Arthroscopy*, 36(7), 2025–2029. <https://doi.org/10.1016/j.arthro.2020.02.018>

- Rostami, F., Mohammadpoorasl, A., & Hajizadeh, M. (2014). The effect of characteristics of title on citation rates of articles. *Scientometrics*, 98(3), 2007–2010. <https://doi.org/10.1007/s11192-013-1118-1>
- Sanders, J.O. (2017). *Spiritual Leadership: Principles of Excellence for Every Believer*. Moody Publishers.
- Shore, L.M., Randel, A.E., Chung, B.G., Dean, M.A., Holcombe Ehrhart, K., & Singh, G. (2011). Inclusion and Diversity in Work Groups: A Review and Model for Future Research. *Journal of Management*, 37(4), 1262–1289. <https://doi.org/10.1177/0149206310385943>
- Singh, G., Haddad, K.M., & Chow, C.W. (2007). Are Articles in “Top” Management Journals Necessarily of Higher Quality? *Journal of Management Inquiry*, 16(4), 319–331. <https://doi.org/10.1177/1056492607305894>
- Soler, V. (2007). Writing titles in science: An exploratory study. *English for Specific Purposes*, 26(1), 90–102. <https://doi.org/10.1016/j.esp.2006.08.001>
- Staples, K. (1999). Technical Communication from 1950-1998: Where Are We Now? *Technical Communication Quarterly*, 8(2), 153–164.
- Subotic, S., & Mukherjee, B. (2013). Short and amusing: The relationship between title characteristics, downloads, and citations in psychology articles. *Journal of Information Science*, 40(1), 115. <https://doi.org/10.1177/0165551513511393>
- Terra, A.L., Agustín Lacruz, C., Bernardes, Ó., Fujita, M.S.L., & Bueno De La Fuente, G. (2021). Subject-access metadata on ETD supplied by authors: A case study about keywords, titles and abstracts in a Brazilian academic repository. *The Journal of Academic Librarianship*, 47(1), 102268. <https://doi.org/10.1016/j.acalib.2020.102268>
- Ting-Toomey, S., & Chung, L. (2021). *Understanding Intercultural Communication* (Third Edition). Oxford University Press.
- Tran, H.D., Diep, P.P.U., & Mushtarin, N. (2024). “Insert witty catchphrase here!”: Do title elements influence engagement and citation?— examining highly-cited research articles in media, communication, and related disciplines. *Scientometrics*, 129(11), 6675–6691. <https://doi.org/10.1007/s11192-024-05152-7>
- Van Dierendonck, D. (2011). Servant Leadership: A Review and Synthesis. *Journal of Management*, 37(4), 1228–1261. <https://doi.org/10.1177/0149206310380462>
- Vera, D., & Crossan, M. (2004). Strategic Leadership and Organizational Learning. *Academy of Management Review*, 29(2), 222–240. <https://doi.org/10.5465/amr.2004.12736080>
- Walumbwa, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T.S., & Peterson, S.J. (2008). Authentic Leadership: Development and Validation of a Theory-Based Measure†. *Journal of Management*, 34(1), 89–126. <https://doi.org/10.1177/0149206307308913>
- Wang, D., Waldman, D.A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *Journal of Applied Psychology*, 99(2), 181–198. <https://doi.org/10.1037/a0034531>
- Watson, J. (1998). *Media Communication*. Macmillan Education UK. <https://doi.org/10.1007/978-1-349-26546-6>
- Yitzhaki, M. (1997). Variation in informativity of titles of research papers in selected humanities journals: A comparative study. *Scientometrics*, 38(2), 219–229. <https://doi.org/10.1007/BF02457410>