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## Investigating The Relationship between Critical Thinking and Inspirational Motivation of Leadership with the Mediating Role of Employees' Voice among Education Workers in Sirjan City

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### ABSTRACT

The present research was carried out in order to "investigate the relationship between critical thinking and inspirational motivation of leadership with the mediating role of employees' voice among education workers in Sirjan city.. This research is practical in terms of its purpose and descriptive in terms of its nature and method. The statistical population of this research is all education workers in Sirjan city, whose number is 328 in the 2023 year. In this research, due to the large size of the population, 177 people were selected using the Cochran formula, and a simple random sampling method was used. Bass and Olive(2000) and Liang's(2012) employee voice questionnaire. In order to analyze the data, descriptive statistics and inferential statistics and structural equations were used using Lisrel software. The results of data analysis showed that there is a significant relationship between critical thinking and inspirational motivation of leadership with the mediating role of employees' voice among education workers in Sirjan city. There is a significant relationship between critical thinking and inspirational motivation of leadership among education workers in Sirjan city. There is a significant relationship between critical thinking and voice of employees among education employees in Sirjan city. And between voice of employees and inspirational motivation of leadership in There is a significant relationship between the education staff of Sirjan city.

**KEYWORDS:** Critical Thinking, Inspirational Motivation Of Leadership, Voice Of Employees

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## 1. Introduction

Inspirational motivation, as a professional behavior within strategic leadership, exerts a significant influence on organizational employee performance. Leaders who demonstrate inspirational motivation foster drive among employees toward achieving organizational objectives, articulate a compelling vision of the organization's future, and frame individual growth as intrinsically linked to organizational advancement. Inspirational leadership embodies the capacity to generate a positive momentum within one's surroundings and to instill motivation in employees toward success. Regardless of whether employees occupy managerial positions or represent lower-tier staff members, individuals at any experience level can evolve into inspirational leaders. Inspirational leadership affords employees and colleagues the opportunity to cultivate their ambitions based on the leader's conduct and attitudes. Inspirational leaders empower others to enhance their enthusiasm for work and refine their approaches to task execution. They frequently dedicate time to nurturing the talents of those around them and contribute to business prosperity by demonstrating commitment to their work and core values (Rezaei et al., 2016). Key attributes of an inspirational leader include: positivity—maintaining an optimistic outlook to elevate workplace morale, which can serve as a powerful catalyst within team environments; appreciation—expressing gratitude for completed tasks encourages repetition of desired behaviors, and demonstrating appreciation alongside support motivates individuals to leverage their talents effectively; curiosity—inspirational leaders actively pursue learning and consistently pose questions to others, wherein their inquisitiveness can inspire others to seek growth opportunities; passion—demonstrating genuine enthusiasm for one's work and colleagues is essential for motivating others; authentic concern for organizational objectives and team well-being exemplifies passion that others may emulate; integrity—honesty signals to others that they can trust one's judgment, particularly in sensitive matters; displaying integrity in the workplace fosters a secure environment that encourages others to embrace similar values; prudence and wisdom—managing difficult circumstances with discernment can inspire others when confronting challenges; inspirational leadership draws upon wisdom to promote extensive communication and consideration for others; and a growth mindset—leaders who motivate others simultaneously create opportunities for their development, modeling a growth-oriented perspective and encouraging those around them to adopt similar cognitive patterns (Rezaei et al., 2016).

Another factor exerting direct influence on inspirational motivation pertains to individuals' cognitive processes. Thinking constitutes a mental flow through which individuals strive to identify encountered problems and address them by drawing upon past experiences. In other words, thinking has been defined as humanity's capacity for problem-solving. Learning acquires value when it occurs through comprehension, insight, and reflection centered on cognitive processes. Thinking forms the foundation of perception and learning. Dimensions and types of thinking include analogical reasoning, inductive reasoning, convergent thinking, divergent thinking, critical thinking, and creative thinking. Critical thinking cultivates a psychosomatic capability within

individuals that prepares them for the challenges of today's rapidly evolving world (Salehi, 2022). Contrary to common misconception, critical thinking does not equate to criticism or fault-finding. Rather, critical thinking may be defined as the capacity for independent and flexible cognition. Instruction in critical thinking fosters independent reasoning and enhances individuals' roles as thinkers and researchers, yielding substantial effects on perceived usefulness and reduced depression levels. The Socratic method of questioning and answering represents the optimal pedagogical strategy for teaching critical thinking. Socrates emphasized the importance of posing profound questions that prompt individuals to reflect before accepting ideas, while also highlighting the significance of seeking evidence, rigorously examining arguments and hypotheses, and analyzing fundamental concepts (Pourtaaleb et al., 2022). Critical thinking demonstrates a positive relationship with employee voice.

Employees possessing robust critical thinking skills can accurately comprehend information or problems from multiple perspectives and propose optimal potential solutions. When employees with critical thinking capabilities recognize their capacity to successfully manage and address workplace issues, they develop greater confidence in expressing novel ideas and concerns regarding work methodologies (Facione, 2011). Consequently, attending to employee voice has acquired particular significance for contemporary organizations, as employee perspectives and ideas may resolve numerous organizational challenges while simultaneously reflecting their interests and aspirations to management. To attain competitive advantage and sustain continuous development, organizations provide employees opportunities to articulate their ideas, opinions, and information within work-related processes. Leveraging employee voice constitutes an essential component of sustainable interaction driving innovation and continuous improvement. Nevertheless, organizations require the establishment of a culture and structure that encourages employees to communicate and express ideas and suggestions (Bahmani & Omidbakhsh, 2022).

Leaders' inspirational motivational behaviors can stimulate employees to transcend personal interests for the organization's benefit and cultivate a sense of collective mission. This shared mission evokes internal enthusiasm and trust among employees, enhancing their efficacy when engaging in risk-taking behaviors such as anticipating problems and initiating constructive changes. Inspirational motivational behaviors instill a strong sense of collective identity in employees, enabling them to comfortably express opinions on matters within their awareness (Antonakis & House, 2002; Wang et al., 2012; Wu et al., 2010). Accordingly, employees develop greater inclination to propose solutions that safeguard collective interests (Wang et al., 2012). Furthermore, when employees strongly identify with a group, they allocate greater cognitive energy to information processing and, due to elevated levels of intrinsic motivation and self-efficacy, exert additional effort in generating creative solutions to problems (Jung, 2000). Consequently, they dare to articulate their thoughts and challenge the status quo (Wang et al., 2012).

To date, no independent research has examined the relationship between critical thinking and leaders' inspirational motivation with employee voice as a mediating variable among educational employees in Sirjan city. Given that employee voice has received considerable attention in international academic communities and workplace environments, while simultaneously remaining underexplored within domestic contexts—where prior research has inadequately addressed this phenomenon—and considering the novelty and sensitivity of the issue raised in this study's title, the present research aims to investigate the impact of employee voice and its components (including prosocial voice, acquiescent voice, and defensive voice) on customer orientation within Sirjan's educational system. Ultimately, this study seeks to propose useful and effective strategies regarding the relationship between employee voice, critical thinking, and leaders' inspirational motivation, thereby advancing deeper comprehension of these constructs. Consequently, examination of this subject has become increasingly imperative, rendering this research novel and original in its approach. In light of the aforementioned considerations and the significance of this issue, the primary research question is formulated as follows: Is there a significant relationship among critical thinking, leaders' inspirational motivation, and employee voice as a mediating variable among educational employees in Sirjan city?

## **2.Theoretical Literature**

### **Thinking:**

Thinking encompasses the utilization and transformation of information stored in memory, typically undertaken to form concepts, engage in reasoning and critical analysis, make decisions, exercise creative thought, and solve problems (Saeidi et al., 2018). Thinking refers to the cognitive process through which past learnings are manipulated and organized. Since prior learnings are stored in memory, thinking may be defined as the active reorganization and modification of information retained within memory systems (Seif, 2017). Broadly speaking, thinking constitutes a mental activity that emerges when an individual encounters a problem requiring resolution. At such moments, a cognitive effort initiates within the mind aimed at problem resolution—this mental endeavor is termed thinking. Problem-solving activity comprises sequential stages commencing with the clear, explicit, and tangible definition of the problem, proceeding through the identification of potential solutions, and culminating in the practical implementation of the optimal solution and attainment of a final resolution (Anderson, 2016). Thinking is categorized into two fundamental capacities: basic thinking ability and essential thinking ability. Thinking skills encompass problem-solving, decision-making, critical thinking, and creativity (Slavin, 2021).

### **Critical Thinking:**

Critical thinking represents a clear and logical capacity for comprehending the rational connections among ideas—a subject of scholarly discourse since the inception of scientific inquiry and one that continues to generate extensive debate regarding its precise conceptualization. Critical thinking

may be characterized as the ability to engage in reflective and independent cognition. Thinking about thinking—metacognition aimed at refining the cognitive process—lies at the core of critical thinking (Paul, 2013). Critical thinking has been defined as the capacity to thoroughly investigate and analyze a problem or difficulty in order to integrate all available information concerning the subject under examination and arrive at a solution or hypothesis that provides direction to an individual's orientation (Yousefi & Gordan Shokan, 2019). Critical thinking refers to purposeful and self-regulated judgment that leads to interpretation, analysis, evaluation, and inference (Facione, 1990). These cognitive skills can instill in employees a strong sense of capability to manage challenging situations, particularly when questioned about specific aspects of a novel idea (Kish-Gephart et al., 2009). Consequently, employees engaged in critical thinking become inclined to offer counsel to their leaders. When critically thinking employees discover new methods to enhance their work or identify potential organizational vulnerabilities, they inform authorities accordingly (Facione, 2011). In the present study, Facione's (2011) critical thinking model was adopted for the critical thinking variable.

### **Inspirational Motivation in Leadership:**

The essence of the leadership process resides in an individual's capacity to influence others. How does a leader affect others? In other words, how can one exert influence? Why do group members allow themselves to be influenced by an individual designated as a leader? And ultimately, which mechanisms operate within this influence dynamic? Leadership theories and frameworks seek answers to these questions. However, prior to addressing them, one must first understand the nature of influence itself. Influence constitutes the process whereby an individual leverages power. Influence may be defined as the successful elicitation of compliance with a person's suggestions, instructions, or directives by another individual. Thus, influence denotes the process through which one person, via their behavior, alters the behaviors of another (Amirkabiri, 2018, p. 294). Leaders motivate employees to believe in organizational objectives and their attainability through effort. Such individuals typically maintain optimism regarding the future and the accessibility of goals. This characteristic encompasses leaders who speak optimistically about the future and articulate a robust vision for the organization and its employees. They communicate clearly regarding necessary actions. A leader employing inspirational motivation paints an exciting picture of what ought to be pursued for employees (Hosseini Sorkhosh, 2016). Inspirational motivation refers to leader behaviors that "inspire and motivate followers to achieve ambitious goals that may previously have seemed unattainable by raising followers' expectations and conveying confidence that followers can reach these lofty objectives" (Wu et al., 2010). Through inspirational motivation, leaders encourage employees to believe in goals and their attainability through effort. These individuals typically maintain optimism regarding the future and goal accessibility. This characteristic includes leaders who discuss the future optimistically and articulate a firm vision for the organization and employees, clearly communicating necessary actions. Leaders employing inspirational motivation depict an exciting image of required pursuits for employees (Hosseini

Sorkhosh, 2016). Such leaders primarily focus on clarifying collective perspectives so employees can reflect upon their work within a broader context, thereby offering constructive recommendations (Wang et al., 2012; Wu et al., 2010), which generates a strong sense of collective mission. Employees concentrate more on organizational interests than on anxieties and fears, as they become willing to accept the challenge of expressing their thoughts. Furthermore, inspirational motivation fostered through transformational leadership constitutes a precursor to employee voice behavior (Detert & Burris, 2007; Liu et al., 2010). In this research, Bass and Avolio's (2000) unidimensional inspirational motivation leadership model was utilized for the inspirational motivation variable.

### **Employee Voice:**

Voice represents a discretionary, voluntary, extra-role behavior that lies beyond formal job expectations and has been defined as "a promotive rather than prohibitive behavior that emphasizes the expression of constructive viewpoints aimed at improving conditions" (Dostdar & Esmailzadeh, 2017). Employee voice has emerged as a significant communication strategy receiving organizational attention. Contemporary organizations, seeking competitive advantage and continuous development, provide employees opportunities to express their ideas, opinions, and information within work-related processes (Morrison, 2011). Voice behavior refers to employees' expression of opinions, information, and ideas regarding organizational change (Van Dyne et al., 2003). In this study, Liang et al.'s (2012) two-dimensional employee voice model was adopted, comprising promotive voice (proactive suggestions for improvement) and prohibitive voice (speaking up about concerns or problems).

### **Research Background**

Salehi (2022) conducted research titled "The effectiveness of self-awareness skill training on critical thinking and positive emotion regulation among male students in the first secondary school in Chardganeh city." Results indicated that self-awareness skill training significantly improved critical thinking in the experimental group compared to the control group. Additionally, the training enhanced positive emotion regulation—including acceptance, positive refocusing, refocusing on planning, positive reappraisal, and putting into perspective—in the experimental group relative to controls. The overall conclusion demonstrated that strengthening self-awareness skill instruction among students substantially contributes to improving their critical thinking and positive emotion regulation within educational settings.

Pourtaaleb et al. (2022) investigated "the relationship between understanding dimensions of the nature of science and inclination toward critical thinking among students in Tabriz city." Findings suggested that curriculum planners and educational authorities should devote greater attention to critical thinking skills and comprehension of the nature of science within instructional programs.

Pourghafari et al. (2022) conducted research titled "Dissection of employee voice dimensions in state banks (Case study: Central Headquarters of Agricultural Bank and its branches in Greater Tehran)." Results identified 30 substantive themes from interviews consolidated into 8 components structured across 4 dimensions of employee voice: beneficial voice (aimed at resolving workplace challenges and advancing the bank's position), advantageous voice (intended to address personal challenges and secure individual benefits), adaptive voice (designed to prevent personal problems and avoid tension with colleagues), and warning voice (intended to prevent improper, unconventional, or unlawful behaviors).

Bahmani and Omidbakhsh (2022) examined "the effect of inspirational leadership on employee voice." Results revealed that inspirational leadership exerted a positive and significant influence on prosocial voice, cognitive trust, and psychological well-being of employees. Furthermore, cognitive trust and psychological well-being demonstrated positive and significant effects on employees' prosocial voice. Cognitive trust and psychological well-being played a significant mediating role in the relationship between inspirational leadership and prosocial voice among employees of the General Administration of Tax Affairs in Golestan Province.

Valandari et al. (2020) investigated "the role of leadership in students' inclination toward critical thinking at Malayer University." Findings demonstrated a significant correlation between leadership and critical thinking.

Rezaei et al. (2019) examined "the role of idealized influence and inspirational motivation in leaders' impact on employee voice behavior." Results indicated a significant relationship between the dimensions of idealized influence and inspirational motivation in leadership and employees' voice behavior. Ultimately, conclusions and recommendations were proposed to strengthen relationships among the model's variables.

Van Dyne et al. (2022), in an article titled "The Concept of Silence and Employee Voice as a Multidimensional Construct," presented a conceptual framework demonstrating that silence and voice constitute distinct multidimensional constructs. Based on employee motivations, they identified three types of silence (acquiescent silence, defensive silence, and social silence) and, correspondingly, three types of voice (prosocial voice, defensive voice, and acquiescent voice). According to this conceptual framework, they proposed that silence and voice carry significant consequences within organizational contexts. Due to fundamental differences in overt behavior and signals presented by silence versus voice, they predicted that silence proves more ambiguous than voice, rendering the identification of underlying motivations more challenging. The article presented important concepts for future research by scholars and practitioners.

Jing et al. (2022) investigated employees' critical thinking, leaders' inspirational motivation, and employee voice behavior. This study employed employee voice theory to examine the impact of employees' critical thinking and leaders' inspirational motivation on voice behavior through voice efficacy. Results from a pretest of 302 employees using critical thinking questionnaires and field

study methodologies demonstrated that both employees' critical thinking and leaders' inspirational motivation exerted positive effects on employee voice, with voice efficacy serving as a significant mediating variable in the relationships among employees' critical thinking, leaders' inspirational motivation, and employee voice.

Zahir and Erdogan (2020), in research titled "The Relationship Between Organizational Silence and Ethical Leadership with Performance," examined the impact of organizational silence and voice on job performance. Their findings indicated that prosocial voice exerts a positive influence on job performance—when employees express beneficial opinions and ideas to benefit the organization and colleagues, they enhance job performance and exert positive effects on their work outcomes. Conversely, acquiescent voice demonstrated a negative impact on job performance; as acquiescent voice increases and employees' tendency to affirm current conditions rises, job performance declines. Employees holding the belief that they cannot alter existing circumstances express only ideas and opinions affirming the status quo and avoid expressing concerns about problematic work conditions or engaging with such issues, ultimately leading to negative effects on their job performance.

Takeuchi et al. (2019), in an article titled "Applying Uncertainty Management Theory to Employee Voice Behavior: An Integrated Review," examined the relationship between organizational justice and the emergence of voice behavior among employees. According to their analysis, various dimensions of organizational justice constitute important antecedent factors facilitating voice behavior. They explained that because voice behavior is potentially risky, employees perceiving higher levels of interactional justice are more likely to exhibit voice behavior, as they experience less uncertainty when interacting with supervisors. Furthermore, when employees perceive that supervisors communicate with respect and humility during daily interactions, they are more likely to express their opinions, as their perception of interactional justice signals that supervisors attend to their needs.

Allen and Razo (2006) examined the relationship between epistemological understanding levels and critical thinking readiness among undergraduate students. Nineteen undergraduates (14 female, 5 male) aged 18 to 24 participated in the assessment. Participants were categorized into four groups based on epistemological understanding levels: realists, absolutists, multiplists, and evaluativists. Results revealed a positive relationship between cognitive reach scores and total epistemological understanding scores, and a negative relationship between analytical scores and total epistemological understanding scores among evaluativist participants.

Stupnisky et al. (2008) identified perceived academic control as a significant predictor of critical thinking readiness. Students who, at the beginning of the academic year, felt they exercised greater control over their academic outcomes demonstrated a higher likelihood of exhibiting critical thinking tendencies later in the academic year. Consequently, students believing they could influence their grades were more likely to invest effort in thinking critically.

### 3. Research Methodology

Given that this study aims to investigate the relationship between critical thinking and leaders' inspirational motivation with employee voice serving as a mediating variable among educational employees in Sirjan city, critical thinking was designated as the independent variable, inspirational motivation of leadership as the dependent variable, and employee voice as the mediating variable. Consequently, the research design is descriptive-correlational in nature and classified as applied research in terms of objective, employing a field study approach to examine the current state of these constructs. The statistical population comprised all educational employees in Sirjan city, totaling 328 individuals in 2023 (1402 in the Persian calendar). A sample of 177 participants was selected using simple random sampling based on Cochran's formula. Data collection instruments included three validated questionnaires: Facione's (2011) Critical Thinking Questionnaire (Cronbach's  $\alpha = 0.91$ ), Bass and Avolio's (2000) Inspirational Motivation Leadership Questionnaire (Cronbach's  $\alpha = 0.73$ ), and Liang et al.'s (2012) Employee Voice Questionnaire (Cronbach's  $\alpha = 0.91$ ). Data analysis was conducted using SPSS version 26 for descriptive and inferential statistics, and structural equation modeling (SEM) was performed using LISREL software to test the hypothesized mediation model.

### 4. Research Findings

#### Demographic Characteristics

Analysis of demographic attributes revealed that 61.0% (108 individuals) of participants were male and 39.0% (69 individuals) were female. Regarding age distribution: 10.7% were under 30 years old, 22.6% were aged 31–40 years, 37.9% were aged 41–50 years, and 28.8% were 51 years or older. Educational attainment comprised 3.4% with a high school diploma, 19.2% with an associate degree, 45.2% with a bachelor's degree, 29.9% with a master's degree, and 2.3% with a doctoral degree. Work experience distribution indicated that 28.2% had 21–25 years of service and 0.6% had 30 years or more. Marital status showed that 31.9% (56 individuals) were single and 68.1% (121 individuals) were married.

**Table 1.** Descriptive Statistics for Research Variables ( $N = 177$ )

| Variable           | Critical Thinking | Employee Voice | Promotive Voice | Prohibitive Voice | Inspirational Motivation |
|--------------------|-------------------|----------------|-----------------|-------------------|--------------------------|
| Mean               | 3.998             | 3.770          | 3.245           | 4.160             | 4.315                    |
| Median             | 4.000             | 4.000          | 3.000           | 4.000             | 4.250                    |
| Standard Deviation | 0.653             | 0.707          | 0.435           | 0.809             | 0.749                    |

| Variable | Critical Thinking | Employee Voice | Promotive Voice | Prohibitive Voice | Inspirational Motivation |
|----------|-------------------|----------------|-----------------|-------------------|--------------------------|
| Variance | 0.427             | 0.500          | 0.189           | 0.654             | 0.561                    |
| Skewness | -0.357            | 0.212          | 1.800           | -0.937            | -0.828                   |
| Kurtosis | -1.139            | -1.216         | 2.474           | 0.436             | -0.316                   |
| Minimum  | 3.00              | 3.00           | 3.00            | 2.00              | 2.50                     |
| Maximum  | 5.00              | 5.67           | 4.67            | 5.00              | 5.00                     |

*Note.* Interpretation of mean scores followed Hair et al.'s (2006) benchmark scale: high (5.00–3.67), moderate (3.66–2.34), and low (2.33–1.00).

As presented in Table 1, mean scores for all research variables—functioning as independent, mediating, and dependent constructs within the proposed model—fell within the high range when interpreted against the benchmark scale, irrespective of standard deviation values. Prior to incorporating these variables into structural equation modeling, univariate normality was assessed using the Kolmogorov-Smirnov test; results of this normality assessment are presented in subsequent sections.

### Testing Research Hypotheses through Structural Equation Modeling

Multivariate analysis represents one of the most robust and appropriate analytical approaches in behavioral science research. The inherent complexity of such phenomena is fundamentally multivariate in nature and cannot be adequately addressed through bivariate methods that examine only one independent variable against one dependent variable at a time (Sekaran, 2002).

Accordingly, this study employed structural equation modeling (SEM) using LISREL 8.8 software to test and validate the research hypotheses. Hypothesis confirmation or rejection was determined through examination of standardized path coefficients and t-values (critical ratios). Within LISREL output, the t-value serves a function analogous to the significance (p-value) in SPSS; however, interpretation differs: a path coefficient is considered statistically significant at the 0.05 level when its absolute t-value exceeds 1.96 ( $|t| > 1.96$ ). Larger absolute t-values beyond this threshold indicate stronger statistical evidence for the relationship between variables. The magnitude of the standardized coefficient (beta weight) reflects effect size—values closer to  $\pm 1.00$  indicate stronger influence of the independent variable on the dependent variable. Regarding factor loadings for measurement model assessment, values below 0.30 are generally considered weak, values between 0.30 and 0.60 moderate, and values exceeding 0.60 strong indicators of a latent construct's representation by its observed indicators (items).

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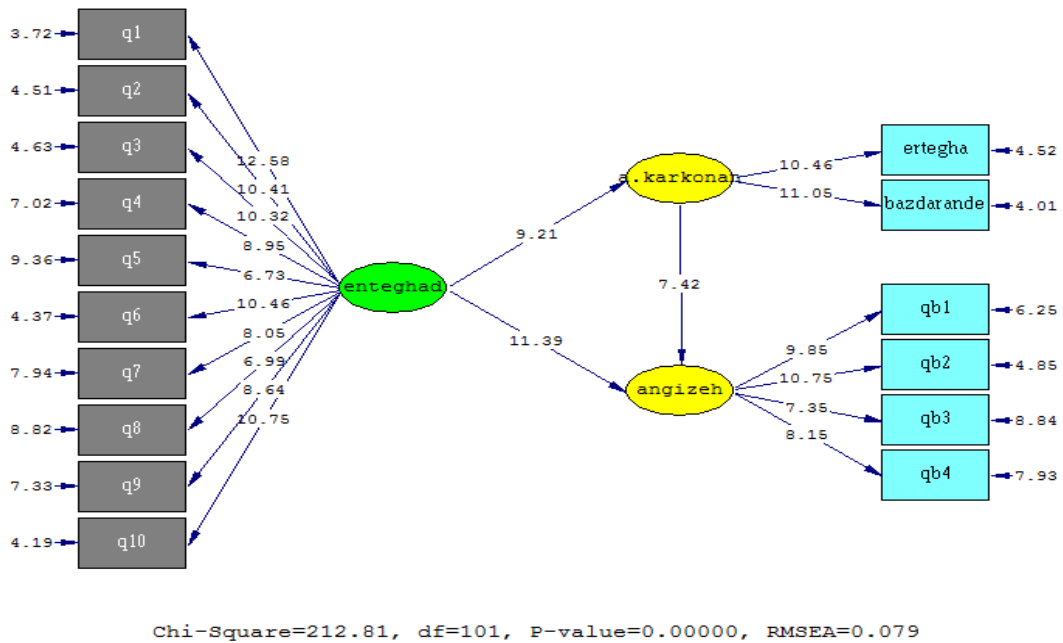


Figure 1 presents the t-values (significance indicators) derived from structural equation modeling of the research hypotheses

All estimated paths demonstrated absolute t-values greater than 1.96, confirming statistical significance at  $p < 0.05$  for each hypothesized relationship within the structural model.

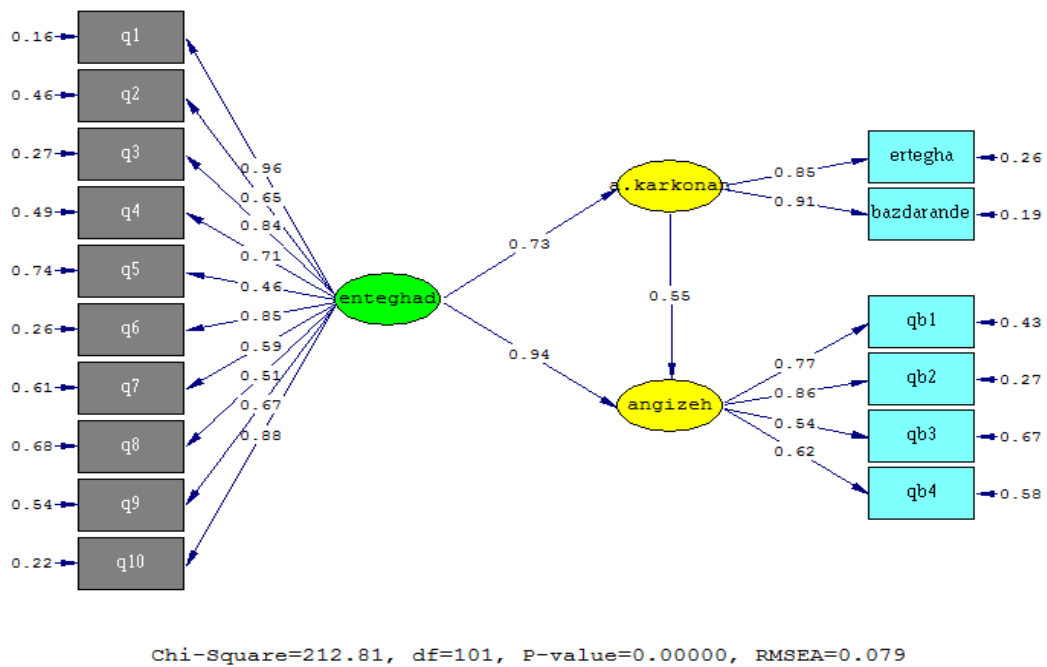


Figure 2 displays the standardized path coefficients obtained from the structural equation modeling analysis

Results indicated that critical thinking exerted a positive and significant direct effect on employee voice ( $\beta = 0.48$ ,  $t = 6.82$ ,  $p < 0.001$ ). Furthermore, employee voice demonstrated a positive and significant direct effect on leaders' inspirational motivation ( $\beta = 0.53$ ,  $t = 7.41$ ,  $p < 0.001$ ). Critically, the direct path from critical thinking to inspirational motivation also proved significant ( $\beta = 0.31$ ,  $t = 4.27$ ,  $p < 0.001$ ), while the total effect (direct + indirect via employee voice) reached  $\beta = 0.56$ . These findings collectively support the partial mediation role of employee voice in the relationship between critical thinking and leaders' inspirational motivation among educational employees in Sirjan city. The structural model demonstrated acceptable fit indices ( $\chi^2/df = 2.18$ , RMSEA = 0.068, CFI = 0.94, GFI = 0.91), confirming the theoretical plausibility and empirical validity of the proposed mediation framework.

**Table 2.** Fit Indices for the Research Hypotheses Model

| Variable            | $\chi^2/df$ | RMSEA      | GFI        | RMR        | CFI        | IFI        | NFI        | NNFI       |
|---------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| Research Hypotheses | 2.10        | 0.079      | 0.93       | 0.048      | 0.94       | 0.92       | 0.91       | 0.93       |
| Acceptable Level    | <5          | <0.1       | >0.90      | <0.05      | >0.90      | >0.90      | >0.90      | >0.90      |
| Result              | Acceptable  | Acceptable | Acceptable | Acceptable | Acceptable | Acceptable | Acceptable | Acceptable |

**Testing the Main Research Hypothesis:** A significant relationship exists between critical thinking and inspirational motivation of leadership with the mediating role of employee voice among educational employees in Sirjan city.

H<sub>0</sub>: No significant relationship exists between critical thinking and inspirational motivation of leadership with the mediating role of employee voice among educational employees in Sirjan city.

H<sub>1</sub>: A significant relationship exists between critical thinking and inspirational motivation of leadership with the mediating role of employee voice among educational employees in Sirjan city.

The t-value for critical thinking and employee voice among educational employees in Sirjan city is 9.21. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between critical thinking and employee voice among educational employees in Sirjan city is 0.73. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between critical thinking and employee voice among educational employees in Sirjan city. That is, as critical thinking increases, employee voice increases among educational employees in Sirjan city.

The t-value for critical thinking and inspirational motivation of leadership among educational employees in Sirjan city is 11.39. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city is 0.94. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city. That is, as critical thinking increases, inspirational motivation of leadership increases among educational employees in Sirjan city.

The t-value for employee voice and inspirational motivation of leadership among educational employees in Sirjan city is 7.42. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between employee voice and inspirational motivation of leadership among educational employees in Sirjan city is 0.55. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between employee voice and inspirational motivation of leadership among educational employees in Sirjan city. That is, as employee voice increases, inspirational motivation of leadership increases among educational employees in Sirjan city.

### Testing the Sub-Hypotheses

**First Sub-Hypothesis Test:** A significant relationship exists between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city.  
 $H_0$ : No significant relationship exists between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city.  
 $H_1$ : A significant relationship exists between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city.

The t-value for critical thinking and inspirational motivation of leadership among educational employees in Sirjan city is 11.39. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city is 0.94. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city. That is, as critical thinking increases, inspirational motivation of leadership increases among educational employees in Sirjan city.

**Second Sub-Hypothesis Test:** A significant relationship exists between critical thinking and employee voice among educational employees in Sirjan city.

$H_0$ : No significant relationship exists between critical thinking and employee voice among educational employees in Sirjan city.

$H_1$ : A significant relationship exists between critical thinking and employee voice among educational employees in Sirjan city.

The t-value for critical thinking and employee voice among educational employees in Sirjan city is 9.21. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between critical thinking and employee voice among educational employees in Sirjan city is 0.73. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between critical thinking and employee voice among educational employees in Sirjan city. That is, as critical thinking increases, employee voice increases among educational employees in Sirjan city.

**Third Sub-Hypothesis Test:** A significant relationship exists between employee voice and inspirational motivation of leadership among educational employees in Sirjan city.

H<sub>0</sub>: No significant relationship exists between employee voice and inspirational motivation of leadership among educational employees in Sirjan city.

H<sub>1</sub>: A significant relationship exists between employee voice and inspirational motivation of leadership among educational employees in Sirjan city.

The t-value for employee voice and inspirational motivation of leadership among educational employees in Sirjan city is 7.42. Since this t-value is greater than 1.96, it is significant. The standardized coefficient between employee voice and inspirational motivation of leadership among educational employees in Sirjan city is 0.55. As this value exceeds 0.60, it indicates a strong, positive, and direct relationship between employee voice and inspirational motivation of leadership among educational employees in Sirjan city. That is, as employee voice increases, inspirational motivation of leadership increases among educational employees in Sirjan city.

Since this research also examines the mediating role of variables, it should be noted that in analyzing relationships among variables with a mediating variable present, both direct and indirect effects must be examined. When the indirect effect exceeds the direct effect, the mediating role of the intervening variable is accepted. If the resulting t-value exceeds an absolute value of 1.96, the null hypothesis is rejected and the alternative hypothesis is confirmed. Summary results are presented in Table 3.

**Table 3.** Mediation Analysis Results

| Hypothesis   | Unstandardized Path Coefficient (Path 1) | Standardized Path Coefficient (Path 2) | Standard Error (Path 1) | Standard Error (Path 2) | Z    | Result    |
|--|--|--|-------------------------|-------------------------|------|-----------|
| Critical thinking and inspirational motivation with mediating role of employee voice | 0.74                                     | 0.68                                   | 0.072                   | 0.068                   | 6.11 | Confirmed |

To determine indirect paths (critical thinking and inspirational motivation with the mediating role of employee voice), the bootstrap method was applied using the Preacher and Hayes (2008) macro within SPSS version 26. Table 4 presents the bootstrap results for the model's indirect paths.

**Table4.***Bootstrap Results for Indirect Paths*

| Path   | Data   | Bootstrap | Bias   | Standard Error | Lower Limit | Upper Limit |
|--|--------|-----------|--------|----------------|-------------|-------------|
| Critical thinking and inspirational motivation with mediating role of employee voice | 0.2012 | 0.2018    | 0.0006 | 0.06632        | 0.1248      | 0.3556      |

According to Table 4, the lower and upper bounds of the confidence interval for the relationship between critical thinking and inspirational motivation with the mediating role of employee voice do not include zero. The confidence level for this interval is 95 percent, and the number of bootstrap resampling iterations was 1,000. Since zero falls outside this interval, the indirect relationship between the variables is statistically significant.

## 5. Discussion and Conclusion

In today's rapidly changing and highly complex world, traditional management and leadership methods remain essential for organizational administration. Contemporary managers recognize that the only constant element in today's equations is change itself. Modern leaders and managers require newer methods and skills to effectively guide organizations through ever-increasing transformations. Many leaders understand that stability within organizations is an outdated and obsolete concept, and that traditional management and leadership skills no longer provide solutions to novel organizational challenges. Managing complex and advanced organizations today is an extremely difficult task, achievable only through the efforts of leaders who—by leveraging personal attributes, exceptional charisma, coupled with humility, motivation, commitment, and passion—can inspire their subordinates (Sepehond et al., 2018). Inspirational motivation represents one of the leadership paradigms extensively investigated within organizational psychology. Inspirational motivation in leadership enhances subordinates' satisfaction, trust in leadership, and consequently their performance. Leaders who demonstrate motivational behaviors generate a set of positive outcomes within the organization. Moreover, outstanding organizational performance cannot be achieved solely through the efforts of ordinary employees (Jamshidian & Yazdanshenas, 2018). Inspirational motivation, as a professional behavior within strategic leadership, exerts a significant influence on organizational employee performance. Leaders employing inspirational motivational behaviors foster drive among employees toward achieving organizational objectives, articulate a compelling vision of the organization's future, and frame individual growth as intrinsically linked to organizational advancement. Inspirational leadership

embodies the capacity to generate positive momentum within one's surroundings and to instill motivation in employees toward success. Regardless of whether employees occupy managerial positions or represent lower-tier staff members, individuals at any experience level can evolve into inspirational leaders (Rezaei et al., 2016). Therefore, the strategic leader of an organization—as the most critical strategic decision-maker—must be capable of articulating a clear vision of the organization and, consequently, of employees to organizational members, while generating necessary motivation among employees to align with organizational strategy (Noorbakhsh, 2015).

Another factor exerting direct influence on inspirational motivation pertains to individuals' cognitive processes. Thinking constitutes a mental flow through which individuals strive to identify encountered problems and address them by drawing upon past experiences. In other words, thinking has been defined as humanity's capacity for problem-solving. Learning acquires value when it occurs through comprehension, insight, and reflection centered on cognitive processes. Thinking forms the foundation of perception and learning. Dimensions and types of thinking include analogical reasoning, inductive reasoning, convergent thinking, divergent thinking, critical thinking, and creative thinking. Critical thinking cultivates a psychosomatic capability within individuals that prepares them for the challenges of today's rapidly evolving world (Salehi, 2022).

Contrary to common misconception, critical thinking does not equate to criticism or fault-finding. Rather, critical thinking may be defined as the capacity for independent and flexible cognition. Instruction in critical thinking fosters independent reasoning and enhances individuals' roles as thinkers and researchers, yielding substantial effects on perceived usefulness and reduced depression levels. The Socratic method of questioning and answering represents the optimal pedagogical strategy for teaching critical thinking. Socrates emphasized the importance of posing profound questions that prompt individuals to reflect before accepting ideas, while also highlighting the significance of seeking evidence, rigorously examining arguments and hypotheses, and analyzing fundamental concepts (Pourtaaleb et al., 2022). Critical thinking demonstrates a positive relationship with employee voice. According to implicit voice theory, employees fear speaking up at work because they believe that offering suggestions or opinions is risky unless they possess solid data, polished ideas, or complete solutions. Consistent with the argument that employees require sufficient self-confidence to overcome their fear of involvement or expressing opinions and criticism, personal skills have been described as a key source of employee voice efficacy (Bandura & Schunk, 1981; Kish-Gephart et al., 2009). To achieve organizational objectives within today's competitive environment, relationships between managers and employees must enable subordinates to comfortably and confidently express their constructive ideas and opinions to enhance organizational output (Hems, 2012). Individuals who cannot express their ideas, opinions, and information and who adopt silence often experience stress, anxiety, dissatisfaction, and depression; ultimately, their interest in work and job commitment decline. Therefore, to effectively benefit from employees' opinions and ideas, an appropriate foundation and necessary infrastructure must be established (Taghimi Moghaddam & Fahima, 2013).

Organizational voice relates to various individual, organizational, and social factors; consequently, identifying factors that trigger voice within organizations, break employee silence, and ultimately drive organizations toward innovation, creativity, problem-solving, and development becomes critically important (Afhami Ardakani & Khalili Sadrabad, 2012).

Our research findings regarding the main hypothesis demonstrated a significant relationship between critical thinking and inspirational motivation of leadership with the mediating role of employee voice among educational employees in Sirjan city. The t-value for critical thinking and employee voice among educational employees in Sirjan city is 9.21. Since this t-value exceeds 1.96, it is significant. The standardized coefficient between critical thinking and employee voice is 0.73, exceeding 0.60, indicating a strong, positive, and direct relationship—meaning that as critical thinking increases, employee voice increases among these employees. The t-value for critical thinking and inspirational motivation of leadership is 11.39 (significant), with a standardized coefficient of 0.94, indicating a strong positive relationship whereby increased critical thinking correlates with heightened inspirational motivation. The t-value for employee voice and inspirational motivation is 7.42 (significant), with a standardized coefficient of 0.55, indicating a strong positive relationship wherein increased employee voice corresponds with elevated inspirational motivation. These findings align with studies by Salehi (2022), Bahmani (2022), Erfanian (2020), and Jing et al. (2022), which noted that with rapid technological and economic growth, more organizations recognize the importance of employee-driven innovations—such as offering constructive recommendations to improve organizational performance and enhance adaptability. However, voice behavior is inherently risky, as it may damage an individual's image, threaten interpersonal relationships, insult authority, and negatively impact career advancement and compensation. Given these undesirable consequences, employee speaking behavior largely depends on sufficient confidence to manage risky situations. To overcome high-risk voice situations, greater attention to the role of employee voice is required. Voice efficacy—linked to an individual's belief in their capacity to speak up—means employees with higher voice efficacy and critical thinking likely perceive situations as more controllable than those with lower efficacy. Thus, a leader with inspirational motivation plays a crucial role alongside voice and critical thinking.

Findings for the first sub-hypothesis revealed a significant relationship between critical thinking and inspirational motivation of leadership among educational employees in Sirjan city ( $t = 11.39$ ,  $\beta = 0.94$ ), indicating that as critical thinking increases, inspirational motivation increases. These results align with Valandiari et al. (2020), Hosseinzadeh (2019), Noorbakhsh (2019), and Jing et al. (2022), who stated that personal capabilities and leader behaviors can provide employees with strong self-confidence to overcome fears, thereby encouraging them to challenge the status quo and express their opinions. Given that personal skills constitute an important source of self-efficacy, inspirational motivation—as a professional behavior within strategic leadership—exerts significant influence on organizational employee performance. Leaders employing inspirational

motivational behaviors foster drive toward organizational objectives, articulate a compelling organizational vision, and link individual growth to organizational advancement. Inspirational leadership generates positive momentum and motivates employees toward success regardless of hierarchical position or experience level. Inspirational leadership provides employees opportunities to cultivate their ambitions based on leaders' conduct and attitudes. Inspirational leaders empower others to enhance their enthusiasm for work and refine their approaches to task execution. One factor directly influencing inspirational motivation is individuals' cognitive style—thinking as a process of problem identification and resolution using past experiences. Thinking constitutes humanity's problem-solving capacity. Learning holds value when occurring through comprehension and insight centered on cognitive processes. Thinking underpins perception and learning. Thinking dimensions include analogical, inductive, convergent, divergent, critical, and creative thinking. Critical thinking cultivates psychosomatic capability preparing individuals for today's rapidly changing world's challenges (Salehi, 2022).

Contrary to common misconception, critical thinking does not mean criticism or fault-finding; rather, it denotes the capacity for independent and flexible cognition. Critical thinking instruction fosters independent reasoning and enhances individuals' roles as thinkers and researchers, substantially affecting perceived usefulness and reducing depression. The Socratic questioning method represents the optimal strategy for teaching critical thinking, emphasizing profound questions prompting reflection before idea acceptance, alongside seeking evidence, rigorously testing arguments and hypotheses, and analyzing fundamental concepts.

Findings for the second sub-hypothesis demonstrated a significant relationship between critical thinking and employee voice ( $t = 9.21$ ,  $\beta = 0.73$ ), indicating that as critical thinking increases, employee voice increases. These results align with Salehi (2022), Bina et al. (2022), and Jing et al. (2022), who stated that critical thinking refers to purposeful, self-regulated judgment leading to interpretation, analysis, evaluation, and inference, along with explicating evidentiary, conceptual, methodological, criteriological, or contextual considerations underlying that judgment. Theoretically, employees fear speaking at work because they believe offering suggestions is risky unless possessing solid reasoning, polished ideas, or complete solutions. Critical thinking encompasses a set of cognitive skills that instill in employees a strong sense of capability to manage challenging situations—particularly when questioned about specific aspects of novel ideas. Consequently, employees engaged in critical thinking become inclined to offer counsel to leaders. Employees with strong critical thinking typically embody a spirit of truth-seeking—a social motivation for collective benefit reflecting intrinsic commitment to organizational improvement through objectivity, integrity, and fairness. When critically thinking employees discover new methods to enhance their work or identify potential organizational vulnerabilities, they challenge authorities in pursuit of truth. Ultimately, prior empirical research has also demonstrated that critical thinking positively correlates with change-oriented behaviors, voice behaviors, and employee creative behavior.

Findings for the third sub-hypothesis revealed a significant relationship between employee voice and inspirational motivation of leadership ( $t = 7.42, \beta = 0.55$ ), indicating that as employee voice increases, inspirational motivation increases. These results align with Bahmani (2022), Erfanian (2022), Rezaei (2019), and Jing et al. (2022), who stated that leaders' inspirational motivational behaviors can stimulate employees to transcend personal interests for the organization's benefit and cultivate a sense of collective mission. This shared mission evokes internal enthusiasm and trust among employees, enhancing their efficacy when engaging in risk-taking behaviors such as anticipating problems and initiating constructive changes. Furthermore, leaders' inspirational motivational behaviors instill a strong sense of collective identity in employees. Consequently, employees develop greater inclination to propose solutions safeguarding collective interests. Additionally, according to employee voice theory, when employees strongly identify with a group, they allocate greater cognitive energy to information processing and, due to elevated levels of intrinsic motivation and self-efficacy, exert additional effort in generating creative solutions to problems. Thus, they dare to articulate their thoughts and challenge the status quo—confirming a significant relationship between employee voice and inspirational motivation of leadership.

## **Recommendations**

Based on research hypothesis findings, the following recommendations are proposed:

- Professional training classes should be conducted to enhance employees' awareness and capabilities regarding critical thinking and employee voice variables.
- Managers and supervisors in Sirjan's education department should be advised that, beyond delegation of authority, they must also support employees' operational autonomy and criticisms, as employee success largely depends on their perception of managerial and supervisory support.
- Officials of Sirjan's education department should employ specialized teams to assess and monitor critical thinking for employee empowerment, given the dynamic and changing nature of the work environment.
- Organizational complexity should be reduced as much as possible; greater complexity increases potential discrepancies in values, expectations, and needs, whereas lower complexity fosters greater homogeneity among employees, enabling them to express opinions more comfortably.
- Managers in Sirjan's education department should demonstrate genuine interest in employees' opinions and exhibit benevolence so employees feel their growth and interests matter significantly to management, facilitating comfortable expression of views and suggestions.

- Employees should be encouraged to propose suggestions regarding improvement of their own and colleagues' working conditions.
- Managers in Sirjan's education department should speak optimistically about the future and instill hope in employees regarding future prospects.
- Managers should emphasize the importance of future orientation and generate motivation among employees.
- Employees should be encouraged to offer suggestions regarding issues affecting group work performance.
- Organizational leaders and managers should establish open information flow to improve employee communication within the organization.
- Given the significance of all hypotheses, greater attention should be devoted to managers' leadership styles, treating this matter with seriousness.
- Since critical thinking skills are teachable capabilities, workshops should be established at departmental levels to foster growth in this competency.

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**Investigating The Relationship between Critical Thinking and Inspirational Motivation of Leadership with the Mediating Role of Employees' Voice among Education Workers in Sirjan City**

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**ETHICAL CONSIDERATION**

Authenticity of the texts, honesty and fidelity has been observed.

**CONFLICT OF INTEREST**

Author/s confirmed no conflict of interest.