


# Modeling Professional Thinking in Ambidexterity and Team Psychological Empowerment (Case Study: Certified Public Accountants)




Abdolmajid Kord<sup>1</sup>, Mansour Garkaz<sup>2\*</sup>, Alireza Maetoofi<sup>3</sup>, Ali Khozain<sup>4</sup> and Alireza Hasan Maleki<sup>5</sup>

<sup>1</sup> PhD Student, Department of Accounting, Gorgan Branch, Islamic Azad University, Gorgan, Iran; 

<sup>2</sup> Associate Professor, Department of Accounting, Gorgan Branch, Islamic Azad University, Gorgan, Iran; 

<sup>3</sup> Associate Professor, Department of Accounting, Gorgan Branch, Islamic Azad University, Gorgan, Iran; 

<sup>4</sup> Associate Professor, Department of Accounting, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran; 

<sup>5</sup> Assistant Professor, Department of Accounting, Bandargaz Branch, Islamic Azad University, Bandargaz, Iran; 

\* Correspondence: m\_garkaz2009@yahoo.com

**Citation:** Kord, A., Garkaz, M., Maetoofi, A., Khozain, A. & Hasan Maleki, A. (2024). Modeling Professional Thinking in Ambidexterity and Team Psychological Empowerment (Case Study: Certified Public Accountants). *Business, Marketing, and Finance Open*, 1(3), 85-95.

Received: 18 February 2024

Revised: 15 April 2024

Accepted: 23 April 2024

Published: 01 May 2024



**Copyright:** © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

**Abstract:** The present study aims to model professional thinking in ambidexterity and team psychological empowerment among certified public accountants. This study adopts a mixed-method approach, conducted in two phases: grounded theory and structural equations. The statistical population in the qualitative phase consists of 15 academic experts in the research field, selected through a non-random purposive sampling method in 2024. In the quantitative phase, the statistical population includes members of the Iranian Association of Certified Public Accountants, from which 297 individuals were selected as the sample through convenience sampling. The data collection tool was a questionnaire, the structure of which was validated using confirmatory factor analysis in SmartPLS software, and its reliability was confirmed using Cronbach's alpha coefficient in SPSS, as well as composite reliability. Data analysis involved the Kolmogorov-Smirnov test to assess normality, Friedman's test to prioritize components and indicators, and structural equation modeling to analyze paths and validate the model in SmartPLS software. The most significant finding of this research is the existence of a relationship between the dimensions and components of professional thinking and ambidexterity, as well as a relationship between the dimensions and components of professional thinking and empowerment.

**Keywords:** Professional thinking, Psychological empowerment, Grounded theory.

## 1. Introduction

Thinking provides a foundational framework for an individual's wisdom to achieve maturity in decision-making. The approach to thinking is a crucial turning point that clarifies the necessary elements for successful performance. The importance of competency-based approaches in management is increasing daily, as these approaches address many challenges present in traditional methods [1, 2]. A professional thinking model serves as a central pillar for managerial competency, planning, organizing, integrating, and improving all aspects of the human resource management system. It has extensive applications in areas such as evaluation and selection, promotion, training and development of individuals, performance management,

recruitment, and career path planning. Thinking models can be employed for developing individual improvement programs, educational initiatives, supporting decisions regarding employees such as hiring, transfers, and promotions, conducting succession planning, performance evaluations, and refining job descriptions. It is difficult to find an organization that has experienced sustained growth and long-term success without being led by a team of thoughtful and competent managers and leaders. The results of such research highlight a wide range of managerial demands and perspectives, emphasizing the competencies essential for success. These findings can be applied in decision-making, recruitment, selection, training, and rewards, and can also be integrated with human resource management strategies.

Ambidexterity can be defined as the ability to simultaneously pursue exploration and exploitation, thereby enabling organizations to navigate multiple conflicting processes within the same structure [4]. Ambidexterity operates through two dimensions: exploration and exploitation [5]. Exploration includes activities such as searching, diversification, risk-taking, experimentation, flexibility, discovery, and innovation [6, 7], and it encompasses activities such as launching new products or services, creating new service distribution channels, and introducing new paradigms. Exploitation, on the other hand, refers to activities focused on refining and improving existing products or services, developing current service lines, and optimizing existing patterns. Exploitation aims to maximize organizational performance in the short term by implementing minor improvements, enhancing task execution, increasing operational efficiency, and ensuring reliability. The goal of organizational ambidexterity is to enable the organization to pursue both exploration and exploitation simultaneously, thereby achieving greater flexibility and efficiency. Organizations that focus solely on exploration or exploitation risk becoming trapped in an imbalanced state, jeopardizing their long-term survival. Thus, ambidexterity distinguishes between an organization's success and failure. An ambidexterity strategy allows organizations to operate cost-effectively, meet diverse customer needs, and ensure long-term survival. Balancing exploitation and exploration requires precise design and implementation of integration at both horizontal and vertical levels within organizations. Therefore, to drive transformation in today's world, organizations need ambidexterity to simultaneously develop new capabilities essential for competition in dynamic environments while optimizing existing capabilities. In this regard, adopting a thinking approach facilitates innovation and exploration [8].

Audit quality has been defined by DeAngelo (1980) as the probability of detecting and reporting errors and fraud in financial statements. The detection of such errors and frauds may be influenced by auditors' individual characteristics, including their experience and educational background [9-11]. However, the reporting of errors depends on the auditor's motivation, willingness to report, ethical and professional behavior, and type of thinking, which can be affected by both organizational and individual factors [12]. In the competitive audit environment, audit firms face intense competition to retain clients, who may replace their auditors with those perceived as more compatible, regardless of individual competence. Economic entities are established with the goal of revenue generation and profitability, and audit firms, in turn, require income for their sustainability [13, 14]. Therefore, successful firms are those that maximize their leadership's thinking capacity to generate revenue. One of the critical concerns of successful economic enterprises globally is to attract and prepare knowledgeable human capital capable of bringing positive changes to organizations. The concept of empowerment has been identified by scholars as a solution to prepare human resources for facing transformations and fostering organizational growth. Psychological empowerment, as an important perspective, is defined as the intrinsic job motivation that includes four dimensions: meaningfulness, impact, competence (self-efficacy), and autonomy [15]. It involves unleashing employees' inner

potential, providing opportunities for talent development, and enhancing employees' perception of their role in their job and organization.

Previous studies have explored various aspects of professional thinking and its implications in auditing. Baqerpour (2022) investigated the effect of locus of control on the relationship between auditors' psychological empowerment and audit quality using standardized questionnaires among Iranian audit firms. The results indicated a significant positive relationship between psychological empowerment and audit quality, which strengthens with an increase in auditors' internal locus of control [12]. Similarly, Ilani (2021) assessed the influence of ethical leadership on psychological empowerment and career advancement, revealing a significant positive correlation between ethical leadership components and empowerment [5]. In another study, Royaei et al. (2018) examined the effect of interpretation mindset orientation on auditors' judgment and decision-making, demonstrating that auditors with an abstract thinking approach exhibited different judgment patterns compared to those with a concrete mindset [6]. Moreover, Safdari et al. (2017) investigated the impact of audit firm characteristics, such as firm size, auditor specialization, firm tenure, and experience, on managerial empowerment in publicly traded companies on the Tehran Stock Exchange, confirming a positive relationship between these audit firm attributes and managerial empowerment [7]. Additionally, Hakkak et al. (2017) identified six key managerial mindsets—visionary, stimulating thought, motivating, ethical climate propagators, competency supporters, and trust-builders—as essential for fostering employees' psychological empowerment [2]. These findings emphasize the significance of managerial cognitive frameworks in enhancing employee empowerment. Based on the above studies, it is evident that developing professional thinking within auditors and leaders can contribute significantly to improving psychological empowerment and audit quality in organizations.

Another major concern for successful global enterprises is attracting talented and knowledgeable human capital capable of driving positive transformations within organizations. Equipping and preparing these resources to handle changes and foster positive transformations within institutions is of paramount importance. Many scholars have identified employee empowerment as the solution to this challenge, striving to create the necessary conditions for cultivating empowered employees. Empowerment is the process of enabling individuals to enhance their self-confidence, overcome feelings of incapacity and helplessness, and mobilize their intrinsic motivations [1].

Given the importance of auditors' professional thinking and its impact on audit quality—ensuring financial transparency for stakeholders—it is crucial to develop auditors' professional thinking to meet the demands of the accounting community. This study aims to explore the dimensions of auditors' professional thinking and its impact on team psychological empowerment, as well as whether high-thinking leaders can foster psychological empowerment for their employees. Given that auditors require professional thinking skills for decision-making and judgment and that they need ambidextrous capabilities and the necessary skills to perform auditing tasks within teams, this study aims to address the question: "What are the components of professional thinking in ambidexterity and team psychological empowerment among certified public accountants?" This study initially seeks to design an auditing thinking model and subsequently examines the relationship between ambidexterity and team psychological empowerment in auditing teams. The findings of this research can serve as a guide for auditors, managers, and partners in audit firms and provide a prescriptive framework for enhancing auditors' professional thinking and its impact on organizational ambidexterity and team psychological empowerment.

## 2. Methodology

This study employs correlation analysis and structural equation modeling using a validated questionnaire derived from the grounded theory approach by Glaser, which was confirmed by experts and faculty members. To measure organizational ambidexterity, the Jansen (2006) ambidexterity questionnaire was utilized. The measurement of team psychological empowerment was conducted using the Spreitzer and Mishra (1997) questionnaire.

Structural equation modeling using PLS software was applied to test the validity of the theoretical model and calculate the impact coefficients. The statistical population of this study consists of certified public accountants in Iran. Based on Morgan's formula, the sample size was determined. According to the latest list from the relevant organization, there are 1,100 active certified auditors, and a sample size of 297 was selected based on Morgan's table.

For data analysis, the study employed structural equation modeling techniques to evaluate the proposed research model.

### 3. Findings

The demographic characteristics of the participants in this study include gender, age, educational level, and years of service, which have been analyzed through frequency distributions, percentages, and related charts. Regarding gender distribution, out of 297 participants, 29 individuals (9.8%) were female, while 268 individuals (90.2%) were male. In terms of age, the majority of participants (35.4%) were between 30 to 40 years old, followed by 32.3% in the 40 to 50 age group, and an equal proportion (32.3%) aged over 50 years. Educational qualification data revealed that 33.7% of participants held a bachelor's degree, 32.7% possessed a master's degree, and 33.7% had a doctoral degree. Concerning work experience, 35.4% of the participants had less than 10 years of experience, 29.6% had between 10 to 20 years of experience, and 35% had 20 to 30 years of professional experience.

Using Glaser's grounded theory method and conducting interviews with 15 experts, the identified components were derived after recognizing the initial codes. The identified components are presented in Table 1.

**Table 1.** Components of Professional Thinking for Auditors

Initial Codes	Concepts	Dimensions
Personal planning, personal development, awareness, skills, knowledge, professional attitudes and behaviors, personal goals and needs, competence, professional approach, self-awareness, time management, self-esteem, productivity enhancement	Personal knowledge development in the professional path	Creative Thinking
Ideas, thoughts, emotions, intelligence, talent, motivation, effort, growth mindset, expected outcomes, foresight and prediction, organizational goals, colleagues' success, avoiding challenges, openness to criticism, professional decision-making, learning	Aligning mindset with professional performance	
Effective teamwork, respect, honesty, communication, improving collaboration morale, stress prevention, job satisfaction, personal growth, problem-solving skills, non-verbal communication, etiquette, professional behavior, colleague support	Communication and Collaboration	Critical Thinking
Individual skill development, multilingual learning, personality, work style, software proficiency, professionalism, creativity, time management, reliability, responsibility, organizational skills, flexibility, adaptability, attention to detail	Technical and Individual Skills	
Empowerment, knowledge, empowering work environment, professional growth, work complexity, self-reliance, self-efficacy, time pressure, situation management, precision and focus, long working hours	Individual Empowerment in Professional Complexity	Critical Thinking
Judgment errors, heuristic behaviors, evidence evaluation, probability estimation, decision-making among options, intuition and motivation, applying logic and wisdom, critical thinking strategies, professional judgments, managerial competence, emotional decisions	Recognizing Judgment Biases in Auditing	

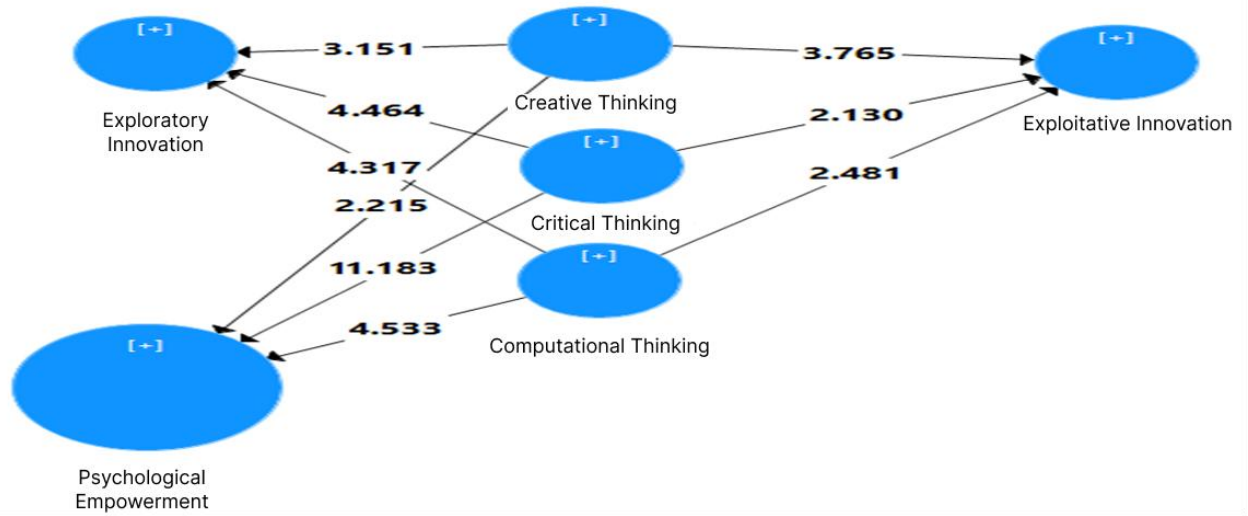
Knowledge enhancement, thinking process, classification and criteria determination, interpretation and inference, identifying relationships and patterns, differentiation, avoiding blind acceptance, resolving ambiguities, deferring judgment until sufficient evidence is obtained, questioning	Deepening Thoughts Beyond the Professional Scope	
Business understanding, collaboration, teamwork within the organization, geographical awareness, reducing stakeholders' financial concerns, transparency, understanding stakeholders' interests, continuous stakeholder communication	Stakeholder Recognition and Attention	
Individual performance, personal competence, social learning, on-the-job training, self-directed learning, continuous learning, adopting new plans, learning ideas, creativity enhancement	Continuous Learning in the Profession	
Supervised learning, big data usage, data tagging, visualization, neural network learning, emerging technologies, remote control, data mining, fraud detection using technology, digital financial transactions, artificial intelligence usage	Machine Learning in the Digital Era	Computational Thinking
Problem and issue segmentation, abstract thinking, systems thinking, obstacle identification, research and evaluation, team building, openness to suggestions, readiness for challenges, positive thinking, problem complexity understanding, problem identification	Understanding a Problem	
Problem-solving skills, problem-solving techniques, confidence in problem-solving, new problem-solving opportunities, simple solutions, collecting all possible solutions, changing thought processes, selecting the best option, finding potential solutions, feedback follow-up, avoiding problem recurrence, team trust-building	Finding a Solution	

The quantitative variables of the research were measured based on the average scores of related questions, and some statistical indicators were calculated for them in this section.

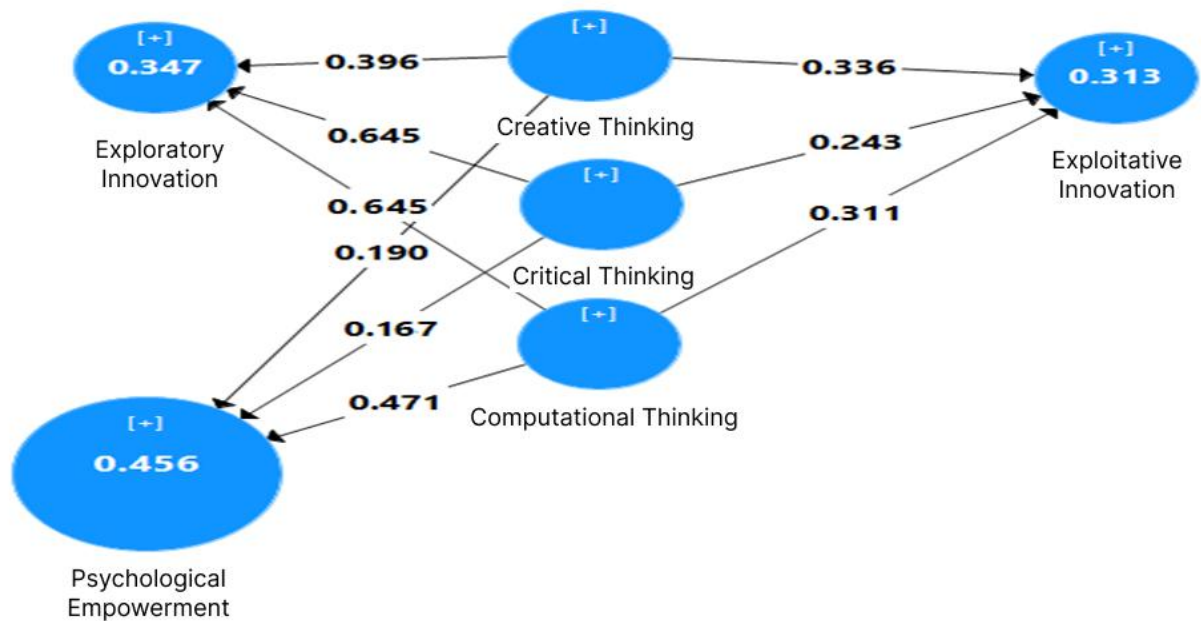
**Table 2.** Calculation of Statistical Indicators for Research Components

Statistical Indicator	Creative Thinking	Critical Thinking	Computational Thinking	Professional Thinking for Auditors	Exploratory Innovation	Exploitative Innovation	Ambidexterity	Psychological Empowerment
Number of Observations	297	297	297	297	297	297	297	297
Mean	3.72	3.38	3.62	3.58	3.32	3.40	3.36	3.49
Median	3.67	3.50	3.67	3.61	3.33	3.33	3.33	3.50
Standard Deviation	0.50	0.65	0.65	0.48	0.86	0.92	0.82	0.54
Skewness Coefficient	-0.22	-0.38	0.21	-0.22	-0.19	-0.23	-0.15	-0.46
Kurtosis Coefficient	0.32	-0.18	-0.32	-0.24	-0.21	-0.42	-0.41	-0.55
Minimum Value	2.17	1.75	2.33	2.25	1.00	1.00	1.33	2.38
Maximum Value	5.00	5.00	5.00	4.78	5.00	5.00	5.00	5.00

These results provide insights into the distribution and tendencies of the data, highlighting the variations and central tendencies across different aspects of professional thinking and related constructs.



**Figure 1.** T-Statistics of the Final Research Model



**Figure 2.** Standardized Coefficients of the Final Research Model

**Table 3.** Results of the Structural Model Analysis

Path	Path Coefficient	Standard Error of Path Coefficient	T-Statistic	P-Value
Critical Thinking → Psychological Empowerment	0.167	0.015	11.18	0.000
Critical Thinking → Exploitative Innovation	0.243	0.114	2.13	0.000
Critical Thinking → Exploratory Innovation	0.645	0.153	4.46	0.000
Creative Thinking → Psychological Empowerment	0.190	0.086	2.21	0.027
Creative Thinking → Exploitative Innovation	0.336	0.089	3.76	0.000
Creative Thinking → Exploratory Innovation	0.396	0.126	3.15	0.000
Computational Thinking → Psychological Empowerment	0.471	0.104	4.53	0.000
Computational Thinking → Exploitative Innovation	0.311	0.125	2.48	0.013



Professional Thinking → Exploratory Innovation	0.456	0.106	4.31	0.000
Professional Thinking → Psychological Empowerment	0.662	0.046	14.48	0.000
Professional Thinking → Ambidexterity	0.596	0.072	8.22	0.000

An examination of Table 3 indicates that the p-values for the null hypothesis, which suggests that the path coefficients of the relationships between variables are equal to zero, are all equal to 0.000 and lower than the first-type error threshold of 0.05, confirming the significance of these relationships. The path coefficients are positive in all relationships, indicating a direct impact of independent variables on dependent variables.

**Table 4.** Results of Hypothesis Testing

Research Hypothesis	Path Coefficient	P-Value	Hypothesis Test Result
Hypothesis 1: There is a significant relationship between professional thinking and ambidexterity in the audit firm.	0.596	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 1: There is a significant relationship between auditors' creative thinking and exploratory innovation in the audit firm.	0.336	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 2: There is a significant relationship between auditors' critical thinking and exploratory innovation in the audit firm.	0.243	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 3: There is a significant relationship between auditors' computational thinking and exploratory innovation in the audit firm.	0.311	0.013	Not rejected at the 0.05 significance level.
Sub-Hypothesis 4: There is a significant relationship between auditors' creative thinking and exploitative innovation in the audit firm.	0.396	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 5: There is a significant relationship between auditors' critical thinking and exploitative innovation in the audit firm.	0.645	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 6: There is a significant relationship between auditors' computational thinking and exploitative innovation in the audit firm.	0.456	0.000	Not rejected at the 0.05 significance level.
Hypothesis 2: There is a significant relationship between professional thinking and team psychological empowerment in the audit firm.	0.662	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 7: There is a significant relationship between auditors' creative thinking and team psychological empowerment in the audit firm.	0.190	0.027	Not rejected at the 0.05 significance level.
Sub-Hypothesis 8: There is a significant relationship between auditors' critical thinking and team psychological empowerment in the audit firm.	0.167	0.000	Not rejected at the 0.05 significance level.
Sub-Hypothesis 9: There is a significant relationship between auditors' computational thinking and team psychological empowerment in the audit firm.	0.471	0.000	Not rejected at the 0.05 significance level.

An analysis of Table 4 reveals that none of the research hypotheses were rejected at the 0.05 significance level, confirming the validity of the proposed relationships within the research model.

#### 4. Discussion and Conclusion

Professional thinking is one of the most intricate and debated topics that has been addressed in practice. Professional thinking is an essential concept in financial statement auditing and a vital element for improving audit quality and auditor judgment. It is one of the factors that auditors can employ to better fulfill their role in the auditing process. When the auditor conducts the audit with professional thinking, judgments accompanied by bias decrease, and the quality of the audit increases significantly. Conversely, if accountants do not have professional thinking, the effectiveness of their performance will be hindered, since one of the primary concerns of investors is that financial reports contain transparent and reliable information to play an important role in forecasting, judgment, and informed decision-making by users. The process of applying professional thinking in auditing at both the work and firm levels plays a critical role in enriching the literature of this field. The present study

substantially contributes to the expansion of the concept of professional thinking in auditing and to the existing discussions on this topic. Although some previous research has examined various features of professional thinking, none—whether domestic or international—has specifically addressed auditors' professional thinking. Furthermore, this study considers the specific context of Iran, illustrating auditing-related professional thinking on a broader scale.

In fact, personality traits refer to the dynamic intrapersonal structure of each individual, encompassing both hereditary factors and social environment. These elements influence a person's behavior and thoughts in a social environment. Accordingly, an auditor's professional thinking depends on the auditor's individual characteristics (personality traits, personality type, inherent attributes, self-confidence, intrinsic motivations, culture, ethnicity, and gender), ethical beliefs, cognitive factors (perception, beliefs, attitude, inquisitive mindset), cognitive errors (overconfidence), adherence to fundamental principles (integrity, objectivity, and professional competence and due care), and knowledge, skills, and experience.

Auditors with professional thinking exhibit more professional behaviors. When reviewing relevant audit documentation (liabilities and inventories), they are able to identify contradictions in the related records. Auditors with greater self-confidence and stability show more persistence and tenacity in their positions against client management. Accounting ethics make auditors more conservative, meaning they are likely to perform their tasks with more thoughtful deliberation. Moreover, when auditors act according to ethical standards, they make more conservative judgments, and improving professional ethics leads to more effective audit processes. Consequently, implementing professional ethics increases professional thinking, because an auditor scrutinizes and deeply analyzes matters during the audit process. The auditor even goes beyond conventional considerations. An auditor's individual traits (such as a tendency to maintain a questioning mindset or predefined skepticism) predict the judgments arising from his or her professional thinking. Several recent studies have investigated changes in auditors' mental models as a potential mechanism to enhance professional thinking. Researchers have concluded that increasing the prominence of auditors' professional identity by compelling them to question professional norms and values leads to greater professional thinking. Parley considered the role of metaphor in altering auditors' mental models. The findings showed that prompting auditors to read a story containing a metaphor focused on the potential tricks of information providers leads auditors to exhibit more professional thinking when completing audit work.

Perception is a process through which individuals organize and interpret the perceptions and assumptions they hold about their profession, thereby giving meaning to them. This can result from processing information about one's job. For example, if a person believes that financial statements are always accompanied by fraud, that individual may adopt conservative procedures to examine reports. This approach is solely attributable to the individual's assumption about the likelihood of fraud in a company's financial statements. However, perception and thinking can differ significantly from objective reality, as people often have varying interpretations of the same phenomenon. It can be stated that an individual's behavior is influenced by their perception or interpretation of their profession (rather than by reality).

In certain research, potentially judgment-based inclinations that may lead to auditor judgment bias have been identified and examined. These judgmental tendencies can be categorized into four groups: psychological biases, confirmation bias, overconfidence, anchoring, and availability. Auditors' inclination to overestimate their actual capacity to perform tasks accurately or evaluate risk or other decisions and judgments indicates excessive confidence in themselves. This bias may represent an unconscious tendency resulting from auditors' personal



motivations. Such an inclination can affect an auditor's efforts to remain objective, and in some cases, overconfidence can lead to an auditor's inability to detect viewpoints or contrary evidence. Generally, many individuals believe that they perform more successfully than most others in their chosen profession. This optimism also appears in risk assessments, often causing people to underestimate the risks they face. Some of these irrational optimistic beliefs stem from overconfidence in one's abilities. People often overestimate their capacity to make accurate decisions. In general, overconfidence may result in less attention to understanding the objectives and purpose of auditing, limited examination of management's reporting preferences and viewpoints, insufficient consideration of audit approaches and alternative solutions, all of which can manifest as inappropriate professional thinking. Having extensive knowledge and practical skills defines professional competence, which facilitates the provision of suitable expert judgments and positions an individual on a path to creative thinking. Given that many auditing tasks lack a clear, targeted framework, compensating for this shortfall necessitates the presence of professional skills such as experience, expertise, and independence to nurture an auditor's professional thinking. Empiricism in the auditing and accounting profession refers to acquiring trial-and-error knowledge and understanding the client base, thus enhancing performance and reducing contradictory reports. Expertise relates to an individual's knowledge capacity and scientific and professional abilities in auditing, enabling them to make appropriate and efficient decisions. Individuals with specialized knowledge, who typically have higher skill levels, often claim a larger market share, and their performance always remains a competitive advantage. Professional thinking correlates with auditors' training and experience, and auditors need an adequate level of competition to apply professional thinking in auditing.

In the United States, the Audit Quality Forum identifies three factors—*independence, objectivity, and professional skepticism*—as the pillars of audit quality. The Forum believes that an effective auditor decision-making process strengthens these three factors, thereby ultimately enhancing the auditor's ability to broaden and document professional judgments throughout the audit process. Auditors can improve their professional judgment capabilities by using an effective decision-making process. Doing so helps them steer their thinking in the right direction and remain aware of their own tendencies, traps, and judgment biases. Due to social sensitivities and issues such as agency costs, auditors must maintain independence and objectivity and adopt a skeptical perspective in reviewing a company's financial statements. Failure to do so would create a gap between societal beliefs and shareholder expectations, undermining auditing's professional competence. Professional prudence is perhaps more closely related to the inherent nature of auditing for explicitly expressing professional thinking in professional standards. Even without emphasizing this matter, the auditor should increase questions and doubts throughout evidence-gathering. An auditor lacking professional thinking or a questioning mindset is not qualified to lead an audit.

Organizations require new leadership models and styles that align with advanced knowledge and in-depth thinking. Researchers, taking into account the requirements of knowledge, have proposed transformational leadership. In contemporary discussions, having a thinking approach facilitates innovation and exploration [8].

Research indicates that a lack of team empowerment among organizational members leads to increased knowledge production costs, hampers the dissemination of best work practices within the organization, and renders the organization incapable of resolving its problems. Therefore, given the special position of audit firms and the challenges they face, adopting a team empowerment strategy can be helpful for the managers of these firms. By pursuing team empowerment, firms can effectively manage current activities to meet present demands, while simultaneously enhancing their capacity to anticipate and adapt to future changes. Baskarada et al. (2016) identified

three organizational mechanisms (training, performance management, and knowledge management) on which leaders rely to promote exploitation, and five behaviors (commitment, vision, risk-taking, empowerment, and inclusiveness) that leaders employ to encourage exploration [16]. These mechanisms and behaviors correspond to transactional and transformational leadership, respectively. Coleman (2016) discovered that leadership style and managerial skills can significantly influence the improvement and enhancement of team empowerment [17]. Mohammadi et al. (2020) found that transformational leadership has a positive, significant effect on organizational ambidexterity and entrepreneurial alertness, and that organizational ambidexterity also has a positive, significant effect on entrepreneurial alertness [4]. Aleandi et al. (2020) concluded that knowledge-based leadership has both a direct and indirect impact on organizational performance. Expanding knowledge-based leadership influences employees' innovative behavior, thereby increasing organizational performance [1].

In this research, attempts were made to propose recommendations based on the array of scientific tools, methods, and related studies, as well as on the findings derived from the specific research questions. It is worth noting that the recommendations provided here are selected for their significance. If other findings were present from any additional research questions or were mentioned in the conclusion discussion, they are not repeated.

- **Enhancing the Sufficiency of the Proposed Model:** Reviewing the concepts and categories of the model and the relationships between them, using survey research at the stock market level, would be highly beneficial for improving the model's generalizability.
- **Influence of Auditors' Personality Traits:** Auditors' personality traits significantly affect their decision-making processes. Moreover, the combination of over-self-confidence and optimism can cause individuals to overestimate their reliance on their own knowledge, believe they can dominate conditions and events, and ignore potential risks. Such individuals tend to exhibit extreme reactions to unexpected or sudden events and news. Findings indicate that auditors possess both over-self-confidence and optimism to a relative degree. Given that personality traits of individuals, including auditors, remain stable over time, yet they may display varying behaviors, it is suggested that in a combined, multi-wave study, auditors' reactions (considering these two traits) to news, incidents, and environmental events—with an emphasis on political, economic, and corporate dimensions—be examined. A comparison can then be drawn between the observable behaviors of auditors over time and their personality traits and thinking.

### Authors' Contributions

Authors equally contributed to this article.

### Ethical Considerations

All procedures performed in this study were under the ethical standards.

### Acknowledgments

Authors thank all participants who participate in this study.

### Conflict of Interest

The authors report no conflict of interest.

## Funding/Financial Support

According to the authors, this article has no financial support.

## References

- [1] K. M. Alneadi, M. J. Almatrooshi, G. S. A. Khalifa, S. A. E. I. Aidie, B. Kemat Alhaj, and M. A. Morsy, "Linking knowledge oriented leadership and innovation towards organizational performance," *Academic Leadership*, vol. 21, no. 4, pp. 107-118, 2020.
- [2] M. Hakkak, A. Shariatnejad, and A. Saeedi, "Identifying Managers' Mental Models for Employees' Psychological Empowerment," *Scientific Article of the Ministry of Science, Management and Development Process*, vol. 30, no. 2, pp. 145-166, 2017.
- [3] M. Yazdanshenas and M. Hashempour, "The Impact of Strategic Thinking Components on Employees' Psychological Empowerment: A Case Study of the Qom University of Medical Sciences and Health Services," in *4th National and 2nd International Conference on Accounting and Management*, 2015.
- [4] S. Mohammadi, M. Nadaf, and F. Mosavi, "Explaining the Mediating Role of Organizational Ambidexterity (Exploration and Exploitation) in the Impact of Transformational Leadership on Entrepreneurial Awareness," *Journal of Exploration and Production Oil and Gas*, vol. 178, p. 19, 2020.
- [5] M. Ilani Hajikolaie, "The Effect of Ethical Leadership on Employees' Career Advancement Path with the Mediating Role of Psychological Empowerment in the Red Crescent Society of Mazandaran Province," *New Research Approaches in Management Sciences*, no. 30, pp. 73-94, 2022.
- [6] R. A. Royaei, K. Javidi, G. Talebnia, and B. Bani Mahd, "Investigating the Effect of Interpretive Mindset Orientation on Auditors' Judgment and Decision-Making Based on the Construal Level Theory of Psychological Distance," *Financial Accounting*, no. 39, pp. 141-169, 2018.
- [7] S. Safdari, B. Ghorbani, and S. A. Mousavi, "The Effect of Audit Firm Characteristics on Empowering Managers of Companies Listed on the Tehran Stock Exchange," 2017.
- [8] M. J. Donate and J. D. Sanchez de Pablo, "The Role of Knowledge-Oriented Leadership in Knowledge Management Practices and Innovation," *Journal of Business Research*, vol. 68, no. 2, pp. 360-370, 2015, doi: 10.1016/j.jbusres.2014.06.022.
- [9] M. Portimoori and S. Zarei, "Auditing Internal Controls and Control Risk," in *9th National Congress of New Findings in Management and Industrial Engineering with Emphasis on Competence and Competitive Intelligence*, Tehran, 2023. [Online]. Available: <https://en.civilica.com/doc/1705184/>.
- [10] A. Momeni Yansari, "Financial Status and Future Stock Price Crash Risk: The Importance of Internal Control Quality in Companies," *Journal of Financial Accounting and Auditing Research*, vol. 15, no. 60, pp. 157-174, 2023. [Online]. Available: [https://journals.iau.ir/article\\_707971.html?lang=en](https://journals.iau.ir/article_707971.html?lang=en).
- [11] G. Kurdistan and S. M. Mohammadi Nasab, "The impact of internal control effectiveness on risk disclosure in financial reports," *Financial Accounting and Auditing Research*, vol. 15, no. 57, pp. 1-22, 2023. [Online]. Available: [https://faar.ctb.iau.ir/article\\_699781.html](https://faar.ctb.iau.ir/article_699781.html).
- [12] M. A. Baqerpour Velashani, R. Zamani, and M. Moradi, "The Impact of Internal Locus of Control on the Relationship Between Auditors' Psychological Empowerment and Audit Quality," *Audit Knowledge*, no. 86, pp. 119-135, 2023.
- [13] R. A. Praja, "The Influence of Human Resources Audit and Internal Control System on Employee Performance in PT. Subur Sedaya Maju Prabumulih," *JuBIR*, vol. 2, no. 2, p. 115, 2024, doi: 10.31315/jubir.v2i2.7958.
- [14] Y. Yulianti, M. W. Zarkasyi, H. Suharman, and R. Soemantri, "Effects of professional commitment, commitment to ethics, internal locus of control and emotional intelligence on the ability to detect fraud through reduced audit quality behaviors," *Journal of Islamic Accounting and Business Research*, 2023, doi: 10.1108/JIABR-02-2021-0076.
- [15] M. Niazi and M. Nasrabadi, "Empowering Human Resources Based on the Social Capital Strategy in Organizations," *Tadbir Magazine*, no. 18, pp. 11-17, 2009.
- [16] S. Baskarada, J. Watson, and J. Cromarty, "Leadership and organizational ambidexterity," *Journal of Management Development*, vol. 35, no. 6, pp. 778-788, 2016, doi: 10.1108/JMD-01-2016-0004.
- [17] N. J. Coleman, "An Exploration of the Leadership Behaviors and Ambidexterity in Online Learning Units," Doctor of Education thesis: The Graduate School of Education and Human Development, George Washington University, 2016.