



## Identifying and Ranking Weaknesses in Municipalities' Internal Auditing

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### ABSTRACT

Municipalities are among the most important public institutions that have a great impact on urban order and discipline and have many financial and operational activities. Accountability is of great importance in this institution. Given the importance of accountability, corporate governance components such as internal audit should be considered. The aim of this research is to identify and rank the weaknesses of the internal audit of municipalities using the fuzzy Delphi method and the Analytical Hierarchy Process(AHP). In the first stage, to identify the components, specialized texts were studied and 14 experts familiar with the subject of internal audit and the activities of municipalities were consulted. After mathematical calculations and fuzzification, 20 main weaknesses were identified. All components were accepted in the fuzzy Delphi stage with a score above 70 percent. After this stage, after classifying the components, they were ranked using a Analytical Hierarchy Process. The 20 factors were classified into three axes: environmental, managerial, and organizational factors. Based on the opinions of 20 experts, the importance of the pivotal components was as follows: weakness of the legal environment with a score of 60 percent; weakness of the economic environment with a score of 28 percent; and weakness of the cultural environment with a score of 12 percent. Weak knowledge and competence account for the largest share of organizational problems, and weak quality control accounts for the largest share of managerial problems. Municipalities should develop their internal audit department and provide the necessary training in this field. This research has value and innovation in improving the financial and operational accountability of municipalities .

**Keywords:** Internal Audit, Municipalities, Internal Audit Weaknesses



## 1. Introduction

Increasing attention to the internal audit function and its expanding roles and deployment in an increasing number of organizations has been observed over the past few years. Studies also show that in recent years, the role of internal audit in corporate governance has been facing an increasing trend, given its relationship with the risk of internal controls of the management system. And internal auditors have used this to expand their scope, such as participation in risk management, control, and governance processes. Such changes are aimed at creating added value for the organization by internal audit (Gaosong & Leping, 2021). Many organizations are also showing the importance of internal auditors in providing guidance and advice at various levels of management, because internal auditing plays an important role in the organizational process, as a result of which it is necessary not only to perform routine assurance activities, Rather, it serves as a strategic partner in the organization and adds value to its activities in order to improve organizational processes and ensure its effectiveness and efficiency (Botha & Wilkinson, 2019). In a role where internal audit has added value, it is assumed that internal audit is effective. The effectiveness of internal audit depends on the ability of internal auditors to achieve the established goal in the organization (Husain, 2019). In fact, objectives should be stated in clear terms and the means to achieve these objectives should also be provided; therefore, there is a need for an effective internal audit department to help organizations achieve their objectives, and organizations with an effective and efficient internal audit unit are more able to detect fraud in their organization than organizations without such a unit. Previous research on the evaluation of internal audit has been limited. With the global financial crisis of 2008–2009, internal audit has gained immense importance, especially in maintaining the rate of return on investment and ensuring that capital is not wasted or devalued (Albawwat et al., 2021).

This has led researchers to be more interested in researching internal auditing. Therefore, with the increasing and growing importance of internal auditing in organizations, the necessary motivation for this study is provided. In general, internal auditing is a consulting, assurance, independent and impartial activity designed to add value and improve the organization's operations And its purpose is to help the

organization achieve its goals by evaluating and improving the efficiency of risk management, control and organizational monitoring processes with a systematic approach. Internal auditing can create value by helping organizations achieve cost-effectiveness, efficiency and effectiveness through consulting management and employees and assisting in risk management; It has therefore been argued that internal audit not only plays a value-adding role by helping to preserve existing values, by preventing capital loss through fraud and inefficiency, but also by improving operational processes (Johari et al., 2021).

Municipalities are exposed to numerous audit gaps due to their extensive organizational and governmental frameworks and high turnover. Especially in recent years, when financial issues have become apparent in many municipalities, the issue of auditing in these institutions has become more important than ever. Therefore, it is necessary to identify the weaknesses of the municipalities' internal audit so that steps can be taken to address them. This research, by studying specialized texts and soliciting opinions from experts, aims to identify the weaknesses of internal auditing in municipalities, in order to fill existing research gaps and develop existing knowledge in this field in order to reduce the problems of internal auditing in municipalities.

The necessity of examining the research issue stems from the fact that effective internal audit can be a great asset for improving public confidence in financial reporting and corporate governance, if it includes these elements: organizational independence, a formal mandate (the existence of an audit charter), unlimited access, sufficient budget, competent and competent staff, the existence of an audit committee, stakeholder support, professional auditing standards, and unlimited scope (Islamzadeh et al., 2022); The effectiveness of internal audit is essential to achieving the organization's goals. In this regard, whether the organization is private or public, it must ensure that its internal audit is effective, so that it is effective in achieving the organization's goals (Hunt et al., 2022). Given the importance of the issue that internal audit must be effective, researchers have called for more research on the effectiveness and elimination of weaknesses of internal audit. Considering the aforementioned cases and examining the content of previous materials and the organizations that have been selected as samples for various studies, despite

the very high turnover in municipalities, attention to auditing in this organization has been very limited, and previous research has not addressed the evaluation and ranking of internal audit weaknesses.

As a local public and non-governmental executive institution, the municipality has many duties, including development, service, monitoring and protection, welfare, etc. Certainly, the most important issue in the field of municipal issues is the way of financial management in this institution, because the emergence of problems in the financial system has a direct relationship with the performance of other municipal duties. And it will cause significant shortcomings in this regard and cause great damage to the city. Throughout the world, especially in the world's metropolises, a proper financial management system can achieve the goals ahead and lead the metropolis towards development, in line with other parts of the world. The pathology of the municipal financial management system reveals significant shortcomings and shortcomings, which further highlight the need for research and reflection.

### **Theoretical and empirical foundations of research**

One of the most important components of governance that has received attention in recent years is corporate governance (organizational governance). The main philosophy of governance is related to accountability. Accountability is a key pillar of organizational governance that has been considered in management and auditing literature. Organizational leadership needs tools to properly perform its duties, one of the most important of which is risk management and internal controls, which are carried out by internal auditors. The root of internal auditing is derived from institutional theory. Institutional theory (firm/organization) was introduced as public and government institutions grew larger. Institutional theory states that the organization is a separate entity from all its participants. The goal of management in this theory is the survival of the firm and therefore uses various methods to satisfy society. In the discussion of firm (organization) theory, many researchers have proposed institutional theory in academic discussions since the late 1970s. In analyzing organizations and establishing timely controls, this theory is presented as a major and

powerful theoretical perspective. Institutional theory complements and shares common ground with legitimacy theories and stakeholder theories. With this theory, it is possible to better understand how organizations perceive changes in institutional and social expectations and pressures. And they react to potential risks and ultimately increase transparency and financial discipline. From the perspective of institutional theory, the organization must always evaluate internal controls and consider potential risks and hazards and manage them with different methods (Islamzadeh et al., 2022).

Elmaasrawy and Tawfik (2025) showed that internal auditing is related to all organizational dimensions and therefore requires more attention to address possible weaknesses. Barr-Pulliam et al. (2024) showed that internal auditors, due to their advisory role in organizations, have a great impact on the activities of auditors and increase the quality of auditing. Sujan et al. (2023) showed that, given the health crises in recent years, artificial intelligence-based internal auditing in the health sector is of great importance. Kokabi et al (2023) revealed that the most effective item(s) of strategic factors were approval of plan, budget and internal auditor reward, and the most effective item of socio-cultural factors was strengthening audit culture symbols and values, and the most effective items of process factors and individual training were internal audit quality upgrade, improvement of behavioral capabilities and decision-making of internal auditors. Shuwaili et al. (2023) identified the relationship between internal and external auditors, granting independence and authority to internal auditors, providing specialized human resources, providing technological resources, developing management support, strengthening organizational culture, and developing audit programs as the most important factors in the effectiveness of internal auditing. Molaei et al (2022) confirm the positive and significant effect of the research variables and thus verifies the proposed model. Therefore, it can be acknowledged that with the improvement of internal and external environmental factors in the audit environment, the quality of audit reports also will be improved. Nerantzidis et al (2022) showed that internal audit is an important mechanism that facilitates the effectiveness of a public organization. Internal audit focuses on various themes such as best practices in organizational governance (corporate

governance), protecting stakeholders, maintaining rule of law and trust, in the public sector, and focusing on transparency and accountability. Tlegray & Selemani (2022) examined the impact of internal audit practices on financial management in municipalities. The findings showed that internal audit independence and the quality of internal audit work significantly affect financial management. Khirkhah et al (2021) show that educational planning was selected to balance the other roles of women as internal auditors, and the most influential Dacum indicator was to enhance the capabilities of women in internal auditing in listed companies in Tehran Stock Exchange. Ayamga & Bagina (2019) determined the impact of internal control systems on the financial performance of the Eastern Municipality in the Eastern Region of Ghana. The findings of this study showed that there is a strong relationship between the internal control system and organizational financial performance of the Eastern Municipality of Kasana Nankana. It was concluded that organizations that invested in effective internal control systems had better financial performance compared to organizations with weak internal control systems. Based on the findings, the study recommends that the governing body, likely supported by the audit committee, should ensure that the internal control system is periodically monitored and evaluated. Mbewu & Barac (2017) in their study, which adopted a qualitative approach, examined four micro-factors that influence the effectiveness of internal audit in municipalities in the Whampoa region of Limpopo province, South Africa. The study found that there were internal audit resource constraints, no quality assurance, improvement programs, and no external quality assurance. Ackermann & Marx (2016) analyzed the performance of internal auditors with specific reference to their risk management mandate. The study followed a mixed method approach to describe the risk management performance of internal audit in eight large municipalities in South Africa. The results showed that internal audit provides a wide range of risk management work that assists senior management in fulfilling its responsibilities. Vinnari and Peter (2014) analyzed the implementation of risk management as a tool for internal audit activities, focusing on unexpected effects or uncertainties created during its application. Public and confidential documents as well as semi-structured interviews were analyzed through the lens of actor network theory to

identify the effects of risk management apparatuses in a Finnish municipality. The authors found that risk management, rather than reducing uncertainty, itself creates unexpected uncertainties that would not otherwise have arisen. These include uncertainties related to the legal aspects of risk management solutions, particularly the issue of which types of documents are legally valid. Uncertainties related to the definition and operationalization of risk management; and uncertainties related to the resources available for developing risk management. More generally, such uncertainties relate to the professional identity and responsibilities of operational managers as defined by framing mechanisms. In a study titled "The Relationship Between Auditor Effort and Misstatements in Financial Statements," Lobo and Zhao (2013) found a strong negative relationship between audit effort and annual report restatement.

Internal auditing in municipalities has practical and applied problems that, in order to resolve, require optimizing and improving the internal auditing environment, strengthening the quality of internal auditing, promoting the use of audit results, etc., because internal auditing is more effective in a supportive environment.

Internal audit helps achieve organizational goals by advising management and conducting operational audits. Internal audit can create value by helping organizations achieve cost-effectiveness, efficiency, and effectiveness through advising management and employees and assisting in risk management; It has therefore been argued that internal audit not only plays a value-adding role by helping to preserve existing values by preventing capital loss through fraud and inefficiency, but also by improving operational processes.

## **Research Methodology**

The present research is of exploratory and mixed type. In conducting this research, the fuzzy Delphi method and the analytical hierarchy process are used. In this way, first by studying specialized texts, the problems of internal auditing in municipalities are identified and then by asking experts for their opinions, the level of acceptance of each problem is determined. After this stage, the importance of the problems in different axes is determined by the matrix calculations of the rank analysis process. Experts must have experience in financial or auditing work in municipalities and be

familiar with the activities of municipalities, and their level of education must be at least a master's degree. The selection of experts was done purposefully and by the snowball method, in such a way that after asking

for opinions, the expert was also asked for opinions about the next respondent.

The characteristics of the experts in the fuzzy Delphi stage were as follows:

**Table 1: Members of the statistical sample of experts**

Work Experience (years)	Education	Job Title	Age	Gender	ROW
28	Master's degree	Master of accounting	51	male	P1
12	Master's degree	auditor	47	female	P2
10	Ph.D	university professor	41	female	P3
10	Ph.D	university professor	39	male	P4
16	Ph.D	Financial manager	48	male	P5
8	Master's degree	Financial manager	36	female	P6
17	Ph.D	university professor	41	female	P7
16	Master's degree	Master of accounting	34	female	P8
12	Master's degree	auditor	39	female	P9
5	Ph.D	university professor	35	male	P10
4	Master's degree	auditor	37	female	P11
12	Ph.D	auditor	45	female	P12
5	Master's degree	Master of Finance	36	male	P13
17	Master's degree	accounting officer	37	female	P14

The characteristics of the 20 experts in the rank analysis process were as follows:

**Table 2: Characteristics of the experts in the matrix questionnaire**

Work Experience	Education	Job Title	Age	Gender	ROW
28	Master's degree	Master of accounting	51	male	P1
11	Master's degree	Master of accounting	47	male	P2
12	Master's degree	auditor	47	female	P3
10	Ph.D	university professor	41	female	P4
10	Ph.D	university professor	39	male	P5
16	Ph.D	Financial manager	48	male	P6
12	Master's degree	Financial manager	36	female	P7
17	Ph.D	university professor	41	female	P8
10	Master's degree	Master of accounting	48	male	P9
11	Master's degree	Master of accounting	44	male	P10
12	Master's degree	Master of accounting	39	male	P11
16	Master's degree	Master of accounting	34	female	P12
12	Master's degree	auditor	39	female	P13
10	Ph.D	university professor	35	male	P14
11	Master's degree	auditor	37	female	P15
12	Ph.D	auditor	45	female	P16
14	Master's degree	Master of Finance	36	male	P17
17	Master's degree	accounting officer	37	female	P18
12	Master's degree	Master of accounting	36	male	P19
11	Master's degree	Master of accounting	38	male	P20

In this research, the following questions were answered:

**Question 1:** What are the weaknesses of the internal audit of municipalities?

**Question 2:** How important is each of the weaknesses of the internal audit of municipalities?

## Finding

Initially, each of the following questions is answered:

**Question 1:** What are the weaknesses of the internal audit of municipalities?

Based on the study of specialized texts and the consultation of experts, the following items were identified.

The studies showed that the internal audit of municipalities has many weaknesses, and to eliminate them, municipalities must first formulate an internal audit charter in detail and then provide the relevant employees with the necessary training in this field. The internal audit charter must be in accordance with local conditions and a careful study of other successful countries in the field of internal audit.

Also, cultural and social infrastructures, etc., should be created in the country to the extent necessary to properly carry out internal audit activities .

**Table 3: Final acceptance items**

The final result	Final average	Weaknesses of Municipal Internal Audit
If the final average > 0.7 = acceptance	$\frac{\sum L + \sum M + \sum N}{3}$	
Accept	0.90	Weak legal environment
Accept	0.95	Weak economic environment
Accept	0.79	Weak lack of resources
Accept	0.74	Weak quality control
Accept	0.83	Weak cultural environment
Accept	0.83	Weak understanding of the audience
Accept	0.72	Weak area of responsibility
Accept	0.90	Weak effectiveness
Accept	0.94	Weak leadership
Accept	0.93	Weak reporting line structure
Accept	0.82	Weak implementation method
Accept	0.86	Weak knowledge and competence
Accept	0.95	Weak compensation
Accept	0.90	Weak distrust
Accept	0.86	Weak training
Accept	0.93	Weak promotion
Accept	0.95	Weak independence
Accept	0.90	Weak management mechanisms
Accept	0.95	Weak institutionalization
Accept	0.79	Weak human resource management

**Question 2:** How important is each of the weaknesses of the internal audit of municipalities?

First, group classification is done by asking for opinions from two evaluators with a long history of internal auditing in municipalities, and then the importance of each factor is determined by matrix calculations.

The following are the opinions of 20 experts used to compare the matrix of components. The matrix of pairwise comparisons of environmental factors is as follows.

Table 4: Questionnaire of the process of rank analysis of environmental problems

average	Normalized matrix of pairwise comparisons			Pairwise comparison matrix			Environmental factor
	Weak legal environment	Weak economic environment	Weak cultural environment	Weak legal environment	Weak economic environment	Weak cultural environment	
0.05	0.09	0.01	0.06	0.11	0.13	1	Weak cultural environment
0.21	0.09	0.10	0.44	0.11	1	8.00	Weak economic environment
0.74	0.82	0.89	0.50	1	9.00	9.00	Weak legal environment
1	1	1	1	1.22	10.13	18.00	sum
0.06	0.10	0.02	0.06	0.13	0.14	1	Weak cultural environment
0.22	0.10	0.11	0.44	0.13	1	7.00	Weak economic environment
0.73	0.80	0.88	0.50	1	8.00	8.00	Weak legal environment
1	1	1	1	1.25	9.14	16.00	sum
0.08	0.14	0.03	0.08	0.20	0.17	1	Weak cultural environment
0.27	0.14	0.16	0.50	0.20	1	6.00	Weak economic environment
0.65	0.71	0.81	0.42	1	5.00	5.00	Weak legal environment
1	1	1	1	1.40	6.17	12.00	sum
0.11	0.17	0.05	0.11	0.25	0.25	1	Weak cultural environment
0.27	0.17	0.19	0.44	0.25	1	4.00	Weak economic environment
0.62	0.67	0.76	0.44	1	4.00	4.00	Weak legal environment
1	1	1	1	1.50	5.25	9.00	sum
0.14	0.20	0.08	0.14	0.33	0.33	1	Weak cultural environment
0.29	0.20	0.23	0.43	0.33	1	3.00	Weak economic environment
0.57	0.60	0.69	0.43	1	3.00	3.00	Weak legal environment
1	1	1	1	1.67	4.33	7.00	sum
0.33	0.33	0.33	0.33	1	1	1	Weak cultural environment
0.33	0.33	0.33	0.33	1	1	1	Weak economic environment
0.33	0.33	0.33	0.33	1	1	1	Weak legal environment
1	1	1	1	3.00	3.00	3.00	sum
0.20	0.25	0.14	0.20	0.50	0.50	1	Weak cultural environment
0.31	0.25	0.29	0.40	0.50	1	2.00	Weak economic environment
0.49	0.50	0.57	0.40	1	2.00	2.00	Weak legal environment
1	1	1	1	2.00	3.50	5.00	sum
0.14	0.20	0.08	0.14	0.33	0.33	1	Weak cultural environment
0.29	0.20	0.23	0.43	0.33	1	3.00	Weak economic environment
0.57	0.60	0.69	0.43	1	3.00	3.00	Weak legal environment
1	1	1	1	1.67	4.33	7.00	sum
0.17	0.29	0.06	0.17	0.50	0.33	1	Weak cultural environment
0.28	0.14	0.19	0.50	0.25	1	3.00	Weak economic environment
0.55	0.57	0.75	0.33	1	4.00	2.00	Weak legal environment
1	1	1	1	1.75	5.33	6.00	sum
0.08	0.14	0.03	0.08	0.20	0.17	1	Weak cultural environment
0.29	0.17	0.19	0.50	0.25	1	6.00	Weak economic environment
0.63	0.69	0.77	0.42	1	4.00	5.00	Weak legal environment
1	1	1	1	1.45	5.17	12.00	sum

average	Normalized matrix of pairwise comparisons			Pairwise comparison matrix			Environmental factor
	Weak legal environment	Weak economic environment	Weak cultural environment	Weak legal environment	Weak economic environment	Weak cultural environment	
0.05	0.09	0.01	0.06	0.11	0.13	1	Weak cultural environment
0.21	0.09	0.10	0.44	0.11	1	8.00	Weak economic environment
0.74	0.82	0.89	0.50	1	9.00	9.00	Weak legal environment
1	1	1	1	1.22	10.13	18.00	sum
0.06	0.10	0.02	0.06	0.13	0.14	1	Weak cultural environment
0.22	0.10	0.11	0.44	0.13	1	7.00	Weak economic environment
0.73	0.80	0.88	0.50	1	8.00	8.00	Weak legal environment
1	1	1	1	1.25	9.14	16.00	sum
0.08	0.14	0.03	0.08	0.20	0.17	1	Weak cultural environment
0.27	0.14	0.16	0.50	0.20	1	6.00	Weak economic environment
0.65	0.71	0.81	0.42	1	5.00	5.00	Weak legal environment
1	1	1	1	1.40	6.17	12.00	sum
0.11	0.17	0.05	0.11	0.25	0.25	1	Weak cultural environment
0.27	0.17	0.19	0.44	0.25	1	4.00	Weak economic environment
0.62	0.67	0.76	0.44	1	4.00	4.00	Weak legal environment
1	1	1	1	1.50	5.25	9.00	sum
0.12	0.16	0.08	0.13	0.25	0.33	1	Weak cultural environment
0.27	0.21	0.23	0.38	0.33	1	3.00	Weak economic environment
0.61	0.63	0.69	0.50	1	3.00	4.00	Weak legal environment
1	1	1	1	1.58	4.33	8.00	sum
0.33	0.33	0.33	0.33	1	1	1	Weak cultural environment
0.33	0.33	0.33	0.33	1	1	1	Weak economic environment
0.33	0.33	0.33	0.33	1	1	1	Weak legal environment
1	1	1	1	3.00	3.00	3.00	sum
0.14	0.25	0.05	0.11	0.50	0.17	1	Weak cultural environment
0.41	0.25	0.32	0.67	0.50	1	6.00	Weak economic environment
0.45	0.50	0.63	0.22	1	2.00	2.00	Weak legal environment
1	1	1	1	2.00	3.17	9.00	sum
0.10	0.11	0.08	0.10	0.17	0.33	1	Weak cultural environment
0.25	0.22	0.23	0.30	0.33	1	3.00	Weak economic environment
0.65	0.67	0.69	0.60	1	3.00	6.00	Weak legal environment
1	1	1	1	1.50	4.33	10.00	sum
0.14	0.21	0.06	0.14	0.33	0.33	1	Weak cultural environment
0.26	0.16	0.19	0.43	0.25	1	3.00	Weak economic environment
0.60	0.63	0.75	0.43	1	4.00	3.00	Weak legal environment
1	1	1	1	1.58	5.33	7.00	sum
0.05	0.08	0.02	0.05	0.11	0.11	1	Weak cultural environment
0.28	0.18	0.20	0.47	0.25	1	9.00	Weak economic environment
0.66	0.73	0.78	0.47	1	4.00	9.00	Weak legal environment

The overall average responses are as follows:

**Table 5: final average of answers**

Weak legal environment	Weak economic environment	Weak cultural environment	Respondent
0.74	0.21	0.05	1
0.73	0.22	0.06	2
0.65	0.27	0.08	3
0.62	0.27	0.11	4
0.57	0.29	0.14	5
0.33	0.33	0.33	6
0.49	0.31	0.20	7
0.57	0.29	0.14	8
0.55	0.28	0.17	9
0.63	0.29	0.08	10
0.74	0.21	0.05	11
0.73	0.22	0.06	12
0.65	0.27	0.08	13
0.62	0.27	0.11	14
0.61	0.27	0.12	15
0.33	0.33	0.33	16
0.45	0.41	0.14	17
0.65	0.25	0.10	18
0.60	0.26	0.14	19
0.66	0.28	0.05	20

The overall average is as follows:

**Table 6: Comparison of environmental factors**

Weak legal environment	Weak economic environment	Weak cultural environment	title
<b>0.60</b>	<b>0.28</b>	<b>0.13</b>	<b>Total average</b>
0.12	0.05	0.08	standard deviation
0.33	0.21	0.05	minimum
0.74	0.41	0.33	maximum

The overall average responses regarding organizational problems are as follows:

**Table: organizational problems ranking**

Weak implementation method	Weak understanding of the audience	Weak training	Weak reporting line structure	Weak promotion	Weak lack of resources	Weak distrust	Weak compensation	Weak knowledge and competence	title
0.15	0.09	0.18	0.04	0.03	0.15	0.11	0.05	0.20	Total average

As is clear, lack of knowledge and competence has the largest share in relation to organizational problems. The overall average of responses regarding management problems is as follows.

As is clear, poor quality control accounts for the largest share of management problems.

Table 7: management problems ranking

Weak human resource management	Weak institutionalization	Weak leadership	Weak independence	Weak effectiveness	Weak quality control	Weak area of responsibility	Weak management mechanisms	title
0.126	0.026	0.133	0.052	0.22	0.32	0.041	0.078	Total average

## Discussion and conclusion

Municipalities are among the most important public institutions that have a great impact on urban order and discipline and have many financial and operational activities. Accountability is of great importance in this institution. Given the importance of accountability, corporate governance components such as internal audit should be considered. The aim of this research is to identify and rank the weaknesses of the internal audit of municipalities using the fuzzy Delphi method and the Analytical Hierarchy Process (AHP). In the first stage, to identify the components, specialized texts were studied and 14 experts familiar with the subject of internal audit and the activities of municipalities were consulted. After mathematical calculations and fuzzification, 20 main weaknesses were identified. All components were accepted in the fuzzy Delphi stage with a score above 70 percent. After this stage, after classifying the components, they were ranked using a Analytical Hierarchy Process. The 20 factors were classified into three axes: environmental, managerial, and organizational factors. Based on the opinions of 20 experts, the importance of the pivotal components was as follows: weakness of the legal environment with a score of 60 percent; weakness of the economic environment with a score of 28 percent; and weakness of the cultural environment with a score of 12 percent. Weak knowledge and competence account for the largest share of organizational problems, and weak quality control accounts for the largest share of managerial problems. Municipalities should develop their internal audit department and provide the necessary training in this field. This research has value and innovation in improving the financial and operational accountability of municipalities. The results of the present study largely confirm the research of Shuwaili et al. (2023); Tlegray & Selemani (2022); Mbewu & Barac (2017) and Ackman and Marx (2016). An important practical suggestion of the present study is that first, detailed studies should be conducted on the internal audit experiences of municipalities in successful countries

and organizations. Then, staff training should be provided, and finally, with detailed planning, steps should be taken to conduct internal audits without weaknesses, and a separate instruction should be provided for the internal audits of municipalities, taking into account all possible weaknesses.

The two major areas of activity under municipal internal auditing are the evaluation of a municipality's internal controls and the evaluation of the effectiveness of its operations. Internal audit evaluates the design and implementation of internal controls, including financial and operational processes, to ensure that they are operating effectively and efficiently and provide reasonable assurance about the achievement of the municipality's objectives. This includes assessing the municipality's risk management processes, financial reporting, and compliance with laws and regulations.

The organization alone cannot provide the necessary conditions for the rights of stakeholders and the fulfillment of responsibilities towards them. To achieve this goal, the participation of all members of society is necessary, and communication between the organization and stakeholders and between stakeholders is the best way to achieve this goal. The most important responsibility of society towards consumers is to provide accurate information and necessary training regarding municipal internal auditing and its beneficial effects on the economic system. This should be done through relevant institutions and associations, but unfortunately, not much effort has been made in this regard so far.

It is suggested that future researchers conduct this study in other government organizations and compare the results of this study to enrich the research literature. It is also necessary to examine the impact of addressing each of the internal audit weaknesses on improving financial reporting in municipalities.

## References

- Ackermann, C., & Marx, B. (2016). Internal audit risk management in metropolitan municipalities. *Risk, Governance & Control: Financial Markets and Institutions*, 6(3), 45-51.
- Albawwat, I. E., AL-HAJAIA, M. E., & AL FRIJAT, Y. S. (2021). The Relationship Between Internal Auditors' Personality Traits, Internal Audit Effectiveness, and Financial Reporting Quality: Empirical Evidence from Jordan. *The Journal of Asian Finance, Economics and Business*, 8(4), 797-808.
- Ayanga, B. N., & Bagina, R. W. (2019). The Effect of Internal Control Systems on Financial Performance in the Kassena Nankana Municipality, Upper East Region. *Asian Journal of Economics, Business and Accounting*, 10(1), 1-13.
- Barr-Pulliam, D., Eulerich, M. and Ratzinger-Sakel, N. (2024), "The effect of the internal audit function's perceived assurance versus advisory purpose on the external auditor's reliance decision", *Managerial Auditing Journal*, Vol. 39 No. 2, pp. 138-165.
- Botha, L. M., & Wilkinson, N. (2019). A framework for the evaluation of the perceived value added by internal auditing. *Meditari Accountancy Research*. 4(3), 27-39.
- Elmaasrawy, H.E. and Tawfik, O.I. (2025), "Impact of the assertive and advisory role of internal auditing on proactive measures to enhance cybersecurity: evidence from GCC", *Journal of Science and Technology Policy Management*, Vol. ahead-of-print No. ahead-of-print.
- Gaosong, Q., & Leping, Y. (2021). Measurement of internal audit effectiveness: construction of index system and empirical analysis. *Microprocessors and Microsystems*, 104046.
- Hunt, N. C., Curtis, M. B., & Rixom, J. M. (2022). Financial priming, psychological distance, and recognizing financial misreporting as an ethical issue: The role of financial reporting responsibility. *Accounting, Organizations and Society*, 101349.
- Husain, T. (2019). An Analysis of Modeling Audit Quality Measurement Based on Decision Support Systems (DSS). *measurement*, 275, 310-326.
- Islamzadeh, Omid, Hajinejad, Abolfazl, Zare, Parisa, Safari, Mehdi, (2022), *Internal Controls in the Public Sector (Theoretical Perspective)*, Tehran: Termeh Publications.
- Khirkhah, A. , Abdoli, M. and Valiyan, H. (2021). Presenting a DACUM Model Based on the Triple-Strength Empowerment Approach to Women in Internal Auditing. *International Journal of Finance & Managerial Accounting*, 6(23), 35-57.
- Kokabi, S. , Kamyabi, Y. and Rezaeian, R. (2023). Identifying Criteria of Internal Audit Quality for Iranian listed Companies. *International Journal of Finance & Managerial Accounting*, 8(28), 55-74. doi: 10.30495/ijfma.2023.20523
- Lobo, G. and Zhao, Y. (2012). "Relation between Audit Effort and Financial Report Misstatements" . *The Accounting Review*, In-Press.
- Mbewu, B. W., & Barac, K. (2017). Effective internal audit activities in local government: fact or fiction?. *Southern African Journal of Accountability and Auditing Research*, 19(1), 15-33.
- Molaei, M. E. Esmail , pouraghajan, A. A. and Abbasian Fredoni, M. M. (2022). Explanation and validation of the audit quality improvement model with the approach of focusing on internal and external components in Iran. *International Journal of Finance & Managerial Accounting*, 7(25), 29-43.
- Nerantzidis, M., Pazarskis, M., Drogalas, G. and Galanis, S. (2022), "Internal auditing in the public sector: a systematic literature review and future research agenda", *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 34 No. 2, pp. 189-209.
- Shuwaili, A.M.J., Hesarzadeh, R. and Bagherpour Velashani, M.A. (2023), "Designing an internal audit effectiveness model for public sector: qualitative and quantitative evidence from a developing country", *Journal of Facilities Management*, Vol. ahead-of-print No. ahead-of-print.
- Sujan M, Smith-Frazer C, Malamateniou C, et al. (2023), Validation framework for the use of AI in healthcare: overview of the new British standard BS30440. *BMJ Health Care Inform*, doi:10.1136/bmjhci-2023-100749

- Tlegray, J., & Selemani, Z. (2022). The Impact of Internal Audit Practices on Financial Management of Local Government Authorities: The Case of Morogoro Municipality in Tanzania. *Asian Journal of Economics, Business and Accounting*, 263-272.
- Vinnari, E., & Skærbæk, P. (2014). The uncertainties of risk management: A field study on risk management internal audit practices in a Finnish municipality. *Accounting, Auditing & Accountability Journal*, 27(3), 489-526.