



## Presenting the Structural Model of Factors Affecting the Quality of Internal Audit in the Framework of the Corporate Governance System

**Sedigheh Garmsiri**

Accounting group, unit Science and Research, Islamic Azad University, Tehran, Iran.

**Ghodratallh Talibnia**

Accounting group, unit Science and Research, Islamic Azad University, Tehran, Iran.

**Hashem Nikoumram**

Accounting group, unit Science and Research, Islamic Azad University, Tehran, Iran.

**Hamidreza Vakilifard**

Accounting group, unit Science and Research, Islamic Azad University, Tehran, Iran

Submit: 12/03/2023 Accept: 03/04/2023

### ABSTRACT

The purpose of the research is to "provide a structural model of factors affecting the quality of internal audit in the framework of the corporate governance system." The research method was mixed (qualitative and quantitative). In the qualitative section, primary data were collected with the help of interviews through 18 people using the snowball method. According to the methodological process, during the three stages of open coding, central coding and selective coding, firstly, the codes related to the topic were identified from the large number of primary data types; Then, by means of continuous comparison, a concept was extracted from several codes, and in the same way other codes were also converted into concepts until finally 118 concepts were obtained. In the next step, some concepts were put in the form of a category so that 19 categories were obtained for this research. In the quantitative part, the designed questionnaire was made available to the internal auditors of capital market companies in the number of 385 people with a non-random sampling method. The analysis of the data obtained from the questionnaire showed that 5 categories appeared as the central category, which include: risk assessment, information and communication, control activities, internal control environment, supervision and monitoring. Other categories were placed in the five categories of causal conditions (3 categories), background or context (2 categories), intervening conditions (3 categories), strategies (3 categories), consequences (3 categories) to be presented in the visual model. In the following, based on the indicators, components, concepts and categories of the proposed model, a questionnaire of 118 questions was compiled and based on the collected data, the relations of the proposed model were examined, and finally the results showed the significance of the relations and components of the model had been presented.

**Keywords:** pattern design, internal audit, corporate governance, Kuzo model, foundational data theory

## 1. Introduction

Internal audit plays a very important and critical role in the management and governance of organization operations. Organizations with efficient and effective internal audit units, have better evaluation to identifying business risks and their own processes and commercial system. Also, the concept of quality in internal audit is multidimensional. Quality includes a wide range of key dimensions such as inputs, processes, outputs, results and outcomes and background factors. The criterion of quality mostly contains one aspect, a combination of aspects and or all of these aspects (Dastgir, 2019). Briefly, inputs are human resources and applied aspects of work, processes are measures taken in doing and making decisions in internal audit. Internal audit is the activity of assurance and independent and neutral consultations which is designed to make value added and improve organizations operations (Dadashi & Nowruzi, 2018). In today's business space, growing attention is paid to governance, risk management and control. To make sure that organization will achieve its goals and the expectations of stakeholders will be satisfied, powerful governance systems are needed. Therefore, shareholders expect board of directors and senior management to implement suitable governance methods. Board of directors is the focal point of governance methods. Board of directors is a communicational bridge between shareholders and administrative management of organization and is responsible for organization governance. The board of directors provides, makes and protects ethical standards and policies, business methods and the rules of organization and supervises them. Board of directors guides administrative manager and other superior managers to determine strategic goals, make suitable risk levels, organize effective control systems, track performance and present clear, perfect and bright and on-time communications with shareholders and supervise them. Among the other responsibilities of board of directors are determining organization strategic goals and governance supervision, to make sure of its effectiveness, it supervises business management and reports shareholders (Lehn, 2021). The measures of board of directors guaranties the satisfaction of shareholders needs and in doing supervision responsibilities it takes a look at internal audit and uses internal audit in evaluating organization governance method. Since lots of governance methods

are used by board of directors and administrative management, it turns evaluation into a very sensitive issue and internal audit helps organization achieve its goals with a systematic and regular approach to evaluate and improve the effectiveness of governance, risk management and control processes (Rahmani & Kadkhodaei, 2017). Therefore, internal audit is considered as one of the main intra-organizational mechanisms of corporate governance. Internal audit is considered one of the pillars of correct corporate governance in banks, corporates and organizations. The importance of internal audit is undeniable in different organizations around the world. Internal audit is an independent, safe, realistic and consultative activity to add value and improve organization operations and helps corporate evaluate and improve the effectiveness of governance processes, risk management and control making irregular and systematic approach (Agbodzie, 2019). It is possible to claim that lots of corporates have used voluntarily the services of internal audit to supervise business affairs and use its valuable services, therefore, it is expected that with the increase of managers' level of awareness more corporate use the services of internal audit voluntarily because if it is established principally, the efficiency of internal audit in preventing unnecessary leakages caused by lack of efficiency and effectiveness of internal controls, management's attention to critical issues, representing value-adding and consultative services will be more than the invested sums (Ibironke, 2019). With these explanations, it is expected that annually, heavy costs be spent on executing internal audit by corporates, the combination of employment and outsourcing and doing audit by parent company. The increasing reliance on internal audits by different stakeholders of corporate governance system increases the need to understand the quality of internal audit (Neut, 2019). The results of the studies indicate that when the stakeholders evaluate the quality of internal audit at a low level, they won't rely or rely less on the reports and information represented by that unit, so it is of fundamental importance to know the arbitration of stakeholder groups on the quality of internal audit and high quality parameters by them (Nedyalkova, 2020).

Internal audit must not take the responsibility of operational responsibility or any other administrative duty which is the subject of internal audit investigation.

The unique prism of internal audit which is prepared in a written form is aligned with the prism of audit committee and is according to IIA standards. Internal audit prism is investigated and updated repeatedly and includes the following items:

- The role and responsibility of internal audit unit
- Applied reportage to audit committee
- Official reportage
- Access to the employees of corporate, facilities and documents (including contracts)
- Any limitation in domain or authorities of internal audit
- The necessities related to managers' cooperation with internal audit and response to reports
- The code of professional conduct
- The standards of internal audit
- Communication with independent audits
- Representing audit reports and summaries
- Following up suggestions and recommendations of internal audit
- Special fields and domains like cheating, technology, security, environment and... have to be clearly explained.

Therefore, audit prism is one of the most fundamental concepts has been recently considered by legislative institutions and developed countries. Audit prism which is considered as one of the main pillars of corporate governance helps board of directors do their financial duties and trustworthiness against shareholders. Also it promotes managers' level of accountability in governmental institutions and public sector against citizens and their selected representatives (Ahmadi & Mir, 2019).

On the other hand, governances taken at the level of organization considering the clarity of different aspects of internal audit quality model including investment in human resources, development of internal audit culture, making suitable mechanisms to execute operations including effective follow-up system to evaluate the performance of internal audit, training, representing intra-organizational quality control mechanisms and outsourcing (periodically), awareness of stakeholders' needs and identifying them, using experts in audit committee, reinforcing corporate governance system are among the most

important governances which can be taken to achieve the quality of internal audit (Zeyn, 2018).

Considering the youth of internal audit profession, there are obstacles and problems to implement and execute it because maturity degree of internal audit in Iran is lower compared to other countries. Recognizing these problems at different levels including the work of internal audit, the unit of internal audit, organizations, society and representing governances to remove these problems may be a big step. Text data inserted in articles, notes, and discussions published in professional journals about internal audit which mainly represents the stakeholders' views about the quality of internal audit and its problems have been also used. The research data was analyzed using open, axial and selective coding specific to grounded theory and macro-parameters, main parameters and micro-parameters (concepts) were extracted. Accordingly, the problems of implementation and execution of audit are represented multilaterally and around the elements of systemic model that is around inputs, work execution, outputs and background factors effective on quality and effectiveness of internal audit as a theory and pattern. Also the findings indicate that there are lots of problems in different dimensions to implement and execute internal audit with high quality, problems that internal audit has paid attention to them in its executive guidelines especially as an aid to smaller internal audit units to observe professional administration standards. Limited number of employees, limited resources, limitation in competent employees retention, limitation in using experts and damaging independence and realism (neutrality) are among the most important problems of internal audit units.

Therefore, considering the importance of the mentioned items it is possible to claim it is necessary to present the structural model of factors affecting the quality of internal audit in the framework of the corporate governance system.

## **Literature Review**

### **Theoretical Literature of Internal Audit Quality**

“Audit is a regular and systematic process to collect and evaluate evidences neutrally about statements (claims) related to economic activities and events to determine the degree of adaptation of these claims

with predetermined criterion and reporting the results to the shareholders” (Nikkhah Azad, ).

This definition of audit is so comprehensive and expansive and as well as transferring the main message of audit as a testable process, it is so comprehensive which covers different types of audit for different items. The statement of regular and systematic process indicates that audit activity is conducted based on suitable planning based on which a collection of related evidences are collected and evaluated and through which audits goals are achieved, the regular and systematic process also implies that audit is conducted based on scientific methods at least in parts of its process (ibid).

Neutral collection and evaluation of evidences is the base of audit, although the type and content of evidences and criterions of evaluation may differ between different audit projects, all audits are concentrated on the axis of evidences collection and evaluation. This subject has been consisted of a series of statements (claims) related to economic activities and events. Such claims which are stated explicitly or implicitly are called “economic information”. Here the term economic indicates any condition which leads to decision making in limited resources allocation. Pre-determined criteria are the same principles accepted in accounting that on accepted principles of accounting as financial auditing criterion, in Philosophy of Auditing, Mautz and Sharaf writes:

“To arbitrate about the fairness of represented financial statements, auditors must have some criteria, these criteria are the same accepted principles of accounting. In the absence of accounting accepted principles, there will be no criterion to arbitrate about the fairness of represented financial statements. If arbitration of auditors not be based on predetermined criteria, a personal arbitration has been represented which is valueless (Mautz & Sharaf; narrated by Nikkhah Azad).

### **Effective Factors on Auditing Quality**

Different direct and indirect factors influence the quality of auditing. Some pay more attention to direct factors, while paying attention to these factors is not enough. Another important point is that one has to pay attention to stakeholders to define the quality of auditing. Figure 1 shows the probable view of two stakeholders (Hasas Yeganeh & Gholamzadeh Ladari, 2017).

The diversity of stakeholders’ views on the quality of auditing indicates that one special parameter must not be introduced as an effective factor on the quality of auditing. Thus, comprehensive study of auditing necessitates wider and deeper understanding of the complexities and delicacies of this issue.

The quality of auditing in auditing standards is inferred as: the issuance of suitable auditing report on observing public accepted accounting principles by employer (Hasas Yeganeh & Gholamzadeh Ladari, 2017).

### **The Necessity of Reliance on Internal Auditors’ Work**

Mac Chiora classified the reasons and necessity of reliance on internal auditors’ work in two groups, The first necessity caused by the competitive market of auditing profession through reducing or stabilizing the wage of independent auditing. the second reason is the result of observing professional standards necessities, so many corporates prepare and implement stages to control or reduce their costs such as independent auditing costs, since in competitive conditions independent auditors face with pressures to control or reduce auditing costs, these events have made auditors identify a way to do auditing more efficiently (Karahi Moghaddam & Mostofi, 2018);.

Mizer and Schneider maintain that reliance on the integrity of internal and independent auditors’ patterns provides a background to help internal auditing. Such efforts make the activity be conducted efficiently and effectively and prevent reworking (Kangarlouei et al., 2016).

### **The Efficiency and Effectiveness of Report and Measures of Internal Audit**

The establishment of a performance measurement system in the field of internal audit activity plays a very important and critical role in achieving goals of auditing activities with the highest qualitative features and standards. The first step in the identification of performance measurement from the point of view of stakeholders (and shareholders), the added values and improvement in the environment of business and organization operations.

The measurement of effectiveness and efficiency may be qualitative or quantitative. Aswell as adaptation with international standards (IIA) for

internal audits, performance measurement of auditing activities may include the following items:

- the level of help to the improvement of risk management, control and organizational processes
- the level of achievement to main and key (objective) goals of organization
- investigating the progress of the process of auditing performance plan
- improvement in employee's efficiency
- the increase of auditing processes effectiveness
- the increase of the number of administrative plans to improve organization's operations
- effectiveness in satisfying the needs of stakeholders
- the results of qualitative safety evaluations and quality improvement plans of internal auditors' activities
- effectiveness in doing auditing
- transparency of communication with auditors and board of directors
- necessary effectiveness (achieving the considered goals) in supplying the needs of organization stakeholders

Obtaining results and necessary feedback of the effectiveness of internal auditing activity is considered so important for the stakeholders of organization, therefore internal audit has to make sure this group of this matter. Internal audit has to confirm the effectiveness of its activity as a valuable part of organization governance (Sasni & Sharifirad, 2017).

### **Theoretical Literature of Corporate Governance System**

Different people have defined corporate governance system differently and have referred to a field has been considered by them. Some of the definitions are:

- Corporate governance system refers to a process and a structure which is used in governing and managing business activities of a company to improve value and increase responsibility of company ultimately aiming at maximizing the value of shareholders in long term while the interests of other stakeholders be also considered (Abor & Adjasi, 2017).
- The framework of suitable governance causes benefit for companies in: better access to financial supply resources, less capital cost,

better performance and more suitable behavior in the direction of stakeholders' desires (Clisness et al., 2014).

- Corporate government system is methods which align the interests of shareholders and managers and governs and guides corporates in the interest of shareholders (Mayer, 2013).
- Corporate governance system is in relation to internal mechanisms of corporate governance system and social concepts of corporate accountability aspects (Dikin & Hagez, 2013).
- Corporate governance system means structures, processes, cultures and systems which will cause suitable performance of corporates (Casi et al., 2013).
- Corporate governance system is considered as a set of criteria in companies to use economic resources in a valuable process and create value added and divide it fairly between partners (Matti, 2013).

From these definitions, it is concluded that defining the nature of relationships between corporate and governance key structures corporate, governance systems aims at determining the legitimate and legal border of accountability. Therefore, corporate governance system may be considered as a criterion in determining the nature of ownership and control in economy. As a result the mechanisms of corporate governance system are legal and economic structures which may be created by means of a political process (Shelifier & Veshni, 2013). The rules of corporate governance system have been resulted from such ways: through their impact on the method of corporate ownership and how companies are controlled and on the process which causes changes in ownership and control (Jenkinson & Mayer, 2013). The definition of ownership has some problems (Anjoya, 1999), ownership is determined by corporate rules (trade) and is defined as asset rights. The difference in defining ownership leads to difference in control methods and as a result causes difference in determining and applying governance strategies (Dikin & Hagez, 1997; Hosseini, 2017).

Corporate governance system states that how corporates are managed, guided and controlled. That is some criteria have to be determined to control and guide management. Subjects which are considered in corporate governance system are:

- Separating administrative management from the board of directors to make sure that the board of director guides and supervises management, including separating the roles of the chairman of board of directors and CEO from each other.
- Making sure that board of directors enjoys an effective combination of responsible and non-responsible managers.
- Making independence for auditors and as a result more legitimacy or financial reportage through making an auditing committee.
- the efficiency of capital market: including the expansion of capital market and reinforcement of its efficiency
- the supervision of main shareholders: respecting the rights of minority and the legal supervision of minority on the activity of corporate
- the supervision of institutional shareholders: encouraging and expanding institutional investors
- the supervision of minority shareholders: respecting the rights of minority and legal supervision of minority on the activities of corporate
- the obligation of independent auditing: considering their distinguished supervision role
- the activity of rating agencies: making facilities for the activity of rating agencies

### **Effective Mechanisms on Corporate Governance System**

The conducted studies indicate that achieving the goals of corporate governance system is realized with the following inter-organization and intra-organizational mechanisms. In other words, the mechanisms of corporate governance systems have two types (Hasas Yeganeh, 2008):

- Inter-organizational mechanisms
- Intra-organizational mechanisms

#### **Inter-Organizational Mechanisms**

These mechanisms have mainly the following items:

Legal supervision: including preparing, confirming and establishing suitable supervision rules

Judicial system: the existing rules in a country may highly influence supporting investors and determine the type of corporate governance in a country.

Laporta, Lopez de Silance, Shelifer and Veshni (1998) assume that judicial system is a fundamentally important instrument in corporate governance system. Especially they conclude that the level of support, rules of a country have from investors' rights and the level of performance bond of those rules determine how financial supply and corporate governance system in that country are conducted. Jensen (1993) considers judicial system as a corporate governance system but introduces it as a useless instrument in confrontation with agency problems between managers and shareholders. Practically, studies representing evidences from a special country, consider a limited scope to study the effects of judicial system, because all existing companies are influenced by a judicial system (Casi et al., 2005, Hosseini, 2017).

#### **Intra-Organizational Mechanisms**

Such mechanisms have mainly the following items:

- The board of directors: selecting and establishing a powerful, well known and neutral board of directors
- Administrative management: the division of responsibilities between administrative management
- Non administrative management: making committees of board of directors from independent and non-administrative managers (auditing committee, rights and etc.)
- Internal controls: designing, preparing and establishing suitable internal controls (financial, judicial, risk, internal audit and etc.)
- Organizational ethics: preparing and developing professional conduct code and organizational ethics.

Each of the mechanisms of inter-organizational and intra-organizational governance supervises every single process and activity of corporates and promotes accountability and achieving other goals of corporate governance system. The relationships between these mechanisms and the goals of corporate governance system and the existing theories are as follows (Sahami, 2018).

## **Literature Review**

Among internal and foreign studies have been conducted close to the title of the current study are:

Nourollahzadeh (2022) investigate the effects of corporate governance on the quality of internal audits and decision making of managers. The statistical population of this study are companies accepted in Tehran Stock Exchange over 2014 to 2019, that the number of 83 companies were selected as sample size. The results of data analysis showed that corporate governance has a significant and positive effect on the quality of internal audit and managers' decision making. Also Piri et al (2021) investigated the relationship between the features of auditing committee and the quality of auditing with SEM approach. The results showed that the features of auditing committee have a direct effect on the quality of auditing, although its effect is not statistically significant. Also control variables of this study (ownership concentration and firm size) directly and significantly influence the quality of auditing. Consistent with this study, Hajiha and Rajab Dorri (2019) prepared a pattern and prioritized effective factors on the enhancement of internal audit quality. The findings showed the confirmation of all research hypothesis and the importance of investigated factors. Also, from respondents' point of view, independence is considered as the first priority and then observing principles, competency, communicational factors and managers supporting internal audit are ranked in next priorities. Also Dadashi and Nowruzi (2018) represented a model explain the effectiveness of auditing committee and the quality of auditing based on structural equations. The effectiveness of the committee of auditing is measured by observable variables such as financial expertise, independency and gender and the size of auditing committee and the quality of auditing are also measured using observable variables such as the percentage of institutional shareholders, the type of comment, industry expertise, size and auditor's tenure. After making sure of acceptable fitness of measurement and structural patterns of research, the results indicated that the effectiveness of auditing committee increases the quality of independent auditing. Javadi and Niknafas (2017) investigated the effective factors on the quality of internal audit, in this study people with necessary expertise in the field of internal audit were selected, since the structure of auditing quality is multi-

dimensional but intangible so it is very difficult to measure it and since different factors influence the quality of auditing it is very important to determine a framework to specify the quality of auditing. Therefore, as well as reviewing the literature of auditing quality this study has tried to investigate the features of internal audit.

in his PhD treatise, entitled the effectiveness of internal audit which has been represented in five articles, Lenz (2022) has described and explained the effectiveness of internal audit, in the second article entitled the effective factors on the role of internal audit in corporate governance using CBOK data analysis in 2016, the responses of 782 of chairmen of internal audit units in different corporates have been used. He has considered the effectiveness of internal audit influenced by four dimensions: 1- organizational features, 2- internal audit resources, 3- internal audit process and 4- communicational pattern of internal audit. Also Zeyn (2018) investigated the effect of internal audit quality on the quality of financial accountability in local government. The initial data was collected and measured by questionnaire containing ordinal scale for measurement. Reliability and validity test have been also conducted on the whole collected questionnaire, this study showed that internal auditing quality influences the competency of financial accountability. On the other hand, Amrizal (2017) has investigated the evaluation development model and internal audit quality at the University of Sumatera Utara. This study has used qualitative descriptive method, the data was collected through interview, observation and documentary technique. The informants of this study were the employees of quality assurance at the level of university and academic programs. The results showed that quality assurance system of internal audit is based on employees' understanding of each university and study program using different models or document quality. On the other hand, Gros et al (2017) investigated the relationship between internal audit quality and financial reportage quality and independent accounting efficiency. The research findings supported this hypothesis that internal audit acts as the main elements of effective corporate governance and plays an important role in financial reportage. Furthermore, the researchers understood that having professional certificates by internal auditors may lead to the increase of financial reportage quality and decrease of

the costs of independent auditor and increase of efficiency. Finally Al Matarneh (2015) investigated factors determining the quality of internal audit in banks using experimental evidence Jordan. The main objectives of this study are investigating the relationship (if there is any) between professional competence, neutrality with performance of internal audit and internal audit quality and provided evidences that whether internal auditor's neutrality and competence and could influence the quality of internal audit or not. To achieve these objectives, a questionnaire has been designed and has been distributed between a sample of internal auditors Jordan banks. The results of this questionnaire showed that internal auditors in all the banks consider competency, neutrality and the performance of internal auditors as important and effective factor on the quality of internal audit. Considering the related literature and the conducted studies the current study aims at representing the structural model of effective factors on the quality of internal audit in the framework of corporate governance system.

## Research Questions

Considering the title, the research questions are as follows:

### **Main Questions:**

How is the structural model of effective factors on the quality of internal audit quality in the framework of corporate governance system?

### **Minor Questions:**

- 1) What are effective causal factors on the quality of internal audit in the framework of corporate governance system?
- 2) What is axial component of internal audit quality in the framework of corporate governance system?
- 3) What are effective intervening factors on the quality of internal audit in the framework of corporate governance system?
- 4) What are effective strategies on the quality of internal audit in the framework of corporate governance system?
- 5) What are effective background factors on the quality of internal audit in the framework of corporate governance system?
- 6) What are the consequences and the results of internal audit quality in the framework of corporate governance system?

To answer the research questions some of the dimensions and components achieved from library studies have been represented in table 1.

**Table 1: dimensions and components achieved from library studies**

Row	Dimensions and components
1.	Management supporting internal audit
2.	Related education
3.	Professional experience
4.	Membership in professional societies
5.	Internal auditor independence
6.	Internal audit unit size
7.	Financial expertise
8.	Independence
9.	Gender
10.	Institutional shareholders
11.	Type of comment
12.	Industry expertise
13.	Size and tenure of auditor
14.	Necessary expertise in internal audit
15.	Auditing plan
16.	Environment change
17.	Organizational culture
18.	Significance
19.	Balanced work control
20.	Employee-orientation
21.	Having open system
22.	Competency and integrity
23.	Documents quality
24.	Internal auditor having professional certificates
25.	Performance
26.	Competence
27.	Neutrality
28.	Internal auditors using IT
29.	Competency
30.	Organization features
31.	Internal audit resources
32.	Internal audit process
33.	Internal audit communicational pattern

Since answering the questions rely on the objects, therefore proposing hypothesis is avoided.

## Methodology

Since the current study mainly aims at "representing structural model of effective factors on the quality of internal audit in the framework of corporate governance system", so table 2 shows a summary of research methodology.



**Table 2: the research methodology**

Type of study	Considering
Developmental	Objective
Survey	Strategy
Mixed (qual-quant)	Research method
Cross-sectional	Time horizon
Document, interview, questionnaire	Data collection techniques

**Statistical Society and Sample**

Here, statistical population, sampling method and sample volume are represented based on the separation of qualitative and quantitative parts.

**Statistical Population and Sample in Qualitative Part (Interview)**

In the qualitative part, the target society includes the considered studies in relation to the research title and 18 people of accounting and financial management experts at academic level participated based on meta-analysis process, critical appraisal and Delphi analysis in analyzing and identifying content statements. It is worth mentioning that on the method and sampling pattern it is possible to say that generally sampling method in this study is purposive sampling method.

**Statistical Population and Sample in Quantitative Part (Interview)**

Target society in quantitative part are internal auditors of capital market companies with necessary competency and expertise to respond to the questions with unknown number that according to the second formula of Cochran, the necessary sample size for unknown society is 385 which has been considered as the basis of analysis. It is worth mentioning that considering the inaccessibility to all society members

non-random convenience sampling method has been used so that questionnaires were distributed among internal auditors of capital market companies and finally the number of 385 completed questionnaires were achieved and analyzed.

**Data Collection Instruments and Analysis**

To obtain general information about the research society and also other information in the field of literature, determining theoretical framework and indices, documents investigation has been used and interview and open questionnaire have been also used to describe the views of the study society. Also to analyze the data achieved from interviews the three-step process of open, axial and selective coding has been used, to analyze the data achieved from questionnaire, descriptive statistics and statistical inference have been used. First to describe findings lots of tables and diagrams were used, since to better describe data central indices such as dispersion means and standard deviation have been used. Then to confirm or reject data normal distribution to measure variables, Kolmogorov-Smirnov test has been used then using confirmatory factor analysis by LISREL8.80, items and indices were studied to confirm the questionnaires. Then, using Interpretive Structural Modeling (ISM) and Structural Equations Modeling (SEM) by LISREL8.80 or SmartPLS.03 the confirmation or rejection of relationships between variables are modeled.

**Findings & Data Analysis**

**Findings Related to Variables Descriptive Statistics**

Table 3 shows descriptive statistics of research variables during the studied period of time.

**Table 3: total statistics of research variables**

Total score					Variable
Max	Min	Variance	SD	Mean	
5,00	1,00	0,56	0,75	4,07	Causal conditions
5,00	2,00	0,73	0,85	4,32	Axial component
5,00	2,89	0,40	0,63	4,27	Governances
5,00	2,33	0,57	0,75	4,29	Backgrounds
5,00	2,00	0,52	0,72	4,04	Intervening conditions
5,00	1,00	0,52	0,72	3,93	Consequences

**Statistical Inference**

The statistical inference of the current study includes two parts of model design and model test.

**Model Design**

**Demographic Descriptions of Research Samples**

A: In this study 18 of accounting and financial management experts at academic level whose comments are citable on the projects, were selected as statistical population for interviewing. Table 4 shows the demographic descriptions of the considered samples.

**Table 4: types of data used in this study**

Number	Type of data	Row
۱	Specialized interviews with accounting experts	۱
۱	Specialized interviews with financial management experts	۲

According to table 4, the first data collection method was interviewing with accounting and financial management experts at academic level it is worth mentioning that each interview has taken approximately 45 minutes.

B: Interview questions:

The interview questions were changed after examining and reviewing previous researches related to the causal conditions of the internal audit quality model, the central category, strategies, platforms and contexts, intervening conditions, as well as the results and consequences of the internal audit quality model. The main design of the research questions based on the description of the data theory of the foundation is as follows:

- 1) In your opinion, why should special attention be paid to the internal audit quality model in the management system of the company using the Kozo model?
- 2) In your opinion, what is the existential philosophy of the internal audit quality model in examining the corporate governance system according to the Kozo model, and why is special attention needed?
- 3) )explain your reasons and justifications in detail(
- 4) In your opinion, why should the country use the internal audit quality model in the

framework of the corporate governance system, focusing on the Kozo model?

- 5) In your opinion, what are the most important factors affecting the internal audit quality model in the framework of the corporate governance system with a focus on the Kozo model? Analyze it?
- 6) What are the conditions, facilities, infrastructures, requirements and platforms necessary for the internal audit quality model in the framework of the corporate governance system with a focus on the Kuzukadamand model?
- 7) What are the interactive strategies of the internal audit quality model in the framework of the corporate governance system, focusing on the Kozo model?
- 8) In your opinion, what are the intervening conditions of the internal audit quality model in the framework of the corporate governance system with a focus on the Kozo model?

**Research Model Test**

**Investigating Standard Path Coefficients and Significance Coefficients Related to Hypotheses**

Figure 1 shows standard estimation output of structural equation model for research conceptual model.

It is worth mentioning that figure 13 shows path coefficients between all variables and components that the highest coefficient path of causal conditions is related to organizational factors which is 84% and the least path coefficient of causal conditions is related to managerial factors which is 65%.

Moreover, the highest path coefficient of axial component is related to information and communications which is 80% and the lowest path coefficient of supervision and monitor component is related to organizational obstacles which is 52%.

Furthermore, the highest path coefficient of intervening component is related to employees obstacles which is 87% and the least path coefficient of intervening component is related to organizational obstacles which is 81%.

Also among the background factors it is possible to state that the highest path coefficient is related to micro-factors which is 88% and the least path

coefficient of background component is related to macro-factors which is 86%. Also among governance factors it is possible to state that the highest path coefficient is related to culture making factors which is 85% and the least path coefficient of background component is related to quality control factors which is 69%. The highest and the lowest path coefficient of consequences are related to organizational effectiveness and management system promotion components which are 82% and 60%, respectively.

It is worth mentioning that the relationships between research variables is that casual conditions is 67% effective on axial component and axial component 63% influences other governances. Also path efficient of governance factors has influenced consequences as 0.64%. Generally, path coefficient of intervening factors on consequences is 61%. Path coefficient of background conditions on consequences has been 54%.

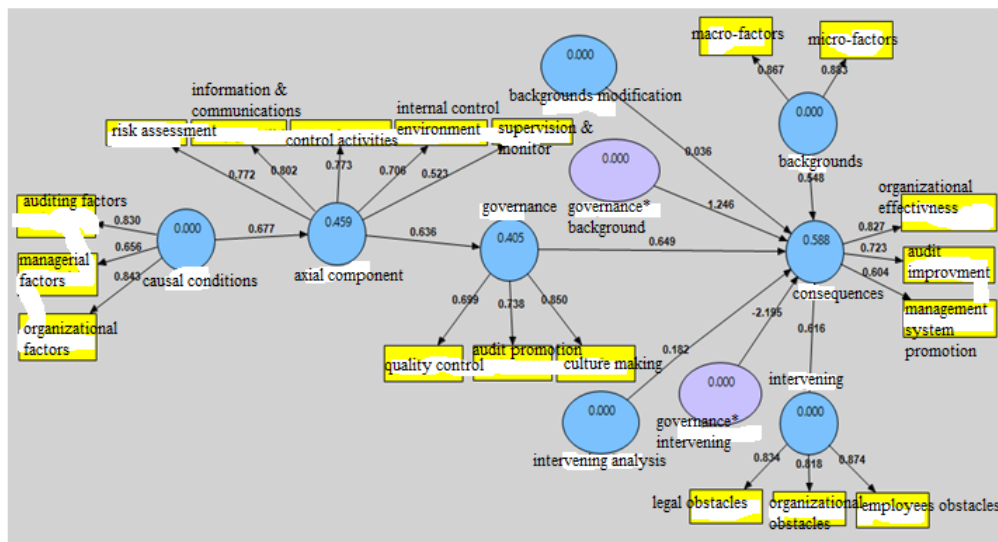


Figure 1: structural model in standard estimation mode

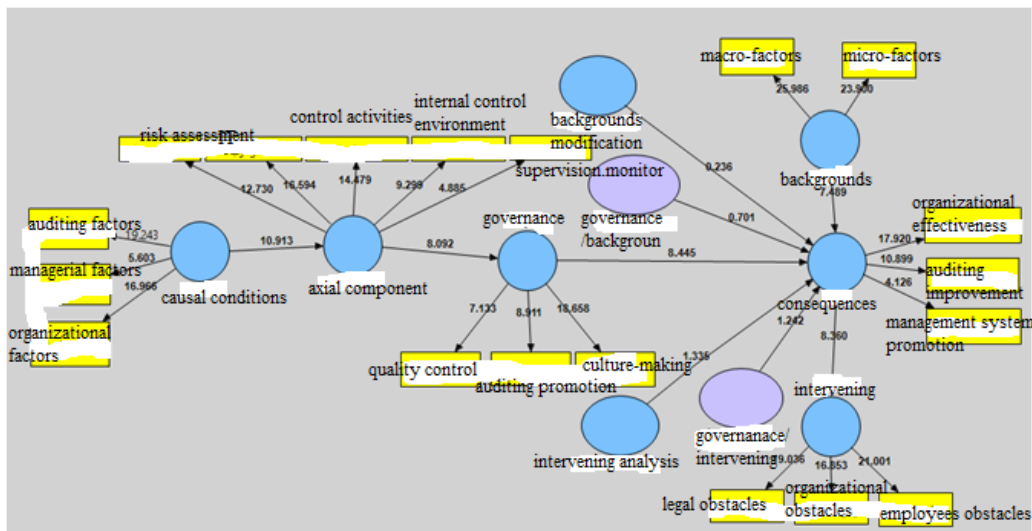


Figure 2: structural model in significance coefficients mode

Considering the results of confirmatory factor analysis which has been represented in a structural model in standard estimation mode (figure 1) and a structural model in significance coefficients mode (figure 2) and since all significance numbers of model parameters are bigger than 1.96, so totally the results of confirmatory factor analysis demonstrates total fitness of the suggested pattern with data and suitable fitness of measurement model.

## Conclusion & Recommendations

The results related to confirmatory factor analysis of questionnaire structures have been represented which are prioritized as: first confirmatory factor analysis of casual conditions was conducted and then discussions related to confirmatory factor analysis of axial component, confirmatory factor analysis of intervening conditions, confirmatory factor analysis of governances, confirmatory factor analysis of

background and finally confirmatory factor analysis of consequences have been written.

Since all p-value numbers of model parameters are bigger than 1.96, so it is possible to claim that all existing structural relationships are confirmed and quantitative analysis confirms the correctness and reliability of qualitative analysis results. Therefore, confirmatory factor analysis results indicate the total fitness of this component (consequences) of the suggested pattern with data and shows suitable fitness of this part of measurement model. Therefore, based on software outputs, it is concluded that all existing structural relationships are confirmed and quantitative analysis confirms the correctness and reliability of qualitative analysis results. Therefore, confirmatory factor analysis results indicate the total fitness of this component (consequences) of the suggested pattern with data and shows suitable fitness of this part of measurement model.

**Table 11: results related to confirmatory factor analysis of questionnaire structures**

Result	Goodness of fit indices	P-value	Factor load	Confirmatory factor analysis
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Casual conditions variable
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Axial component variable
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Governances variable
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Consequences variable
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Intervening conditions variable
It is possible to conclude the validity and reliability of measurement model of this variable	All goodness of fit indices show model optimality	All p-value numbers of model parameters are bigger than 1.96	All variables and also indices are for all questions related to model variables with higher than 0.3 factor load	Background variable

## Research Recommendations

Since the suggested model in this study contains different levels of analysis, so it is tried to suggest applied specific suggestions based on objective and analyzed issues and problems resulted of this study in the form of qualitative exploratory interviews with experts and questionnaires distributed among society which will be described in the following.

- 1) Based on the results and path coefficients of components and concepts of the suggested model, it is recommended to pay attention to and specifically emphasize on the necessities of policies and also mission and purpose of internal audit quality in the framework of corporate governance system in the form of an extensive and comprehensive plan. Furthermore, it is suggested to devise a suitable background to take supportive policies and rules of country in internal audit quality in a suitable condition. So it is expected to use the quality of internal audit optimally and effectively and its advantages.
- 2) Also, it is recommended to do necessary investments specifically and in a planned manner on the infrastructures of internal audit quality in the framework of corporate governance system and existing potentials and also existing technologies in the related field simultaneously.
- 3) Changes and evolutions in the field of different new technologies such as internal audit has been recently happened, have influenced so many organizations. Active institutions in this field were not an exception, so it is recommended to take measures with operational plans to align or synergize these institutions.
- 4) Also the results indicate that risk assessment, IT, control activities and supervision and monitor as the most central factors, play a very influential role in the establishment and implementation of internal audit quality successfully in the framework of corporate governance system. So it is recommended to pay more attention to these factors at high organizational level of active institutions and be obliged to use internal audit quality in the framework of corporate governance system.
- 5) Also, it is recommended that the managers of active institutions in internal audit quality field make their effort to pay special attention to auditing in the process of internal audit using effective workforce, policies and plans and preparing content strategy to obtain effective achievements.

## References

- 1) Ahmadi, Seyyed Ehsan & Mir, Ali (2019). Investigating the adjustment effect of ownership concentration on the relationship between corporate governance system and auditing quality.
- 2) Piri, Parviz; Ashtab, Ali, Ali Akbarlou & Khakpour Heydaranlou, Ebrahim (2021). Investigating the relationship between auditing committees features and auditing quality with SEM. The 2<sup>nd</sup> international conference on new challenges and approaches in industry engineering and accounting, Damghan.
- 3) Javadi, Elham & Niknafas, Elmira (2017). Effective factors on audit quality. The 1<sup>st</sup> national conference on the role of accounting, economics and management, Tabriz.
- 4) Hajiha, Zohreh & Rajab Dorri, Hossein (2019). Preparing pattern and prioritizing effective factors on the increase of internal audit quality.
- 5) Hasas Yeganeh, Yahya & Gholamzadeh Ladari, Masood (2017). "Comprehensive evaluation of auditing quality in Iran: research opportunities". The 10<sup>th</sup> conference of accounting, Alzahra University.
- 6) Hasas Yeganeh, Yahya (2018). Investigating the relationship between institutional investors and company's value. Research and scientific quarterly of accounting and auditing, issue 15. No 3.
- 7) Hosseini, Seyyed Mojtaba (2017). Investigating the effect of intuitional shareholding as one of the criteria of corporate governance system on the efficiency of shareholders in companies accepted in Tehran stock exchange. Treatise to take MA degree, University of Tehran.
- 8) Dadashi, Iman & Nowruzzi, Mohammad (2018). Representing a model to explain the effectiveness of auditing committee and auditing quality based on structural equations.
- 9) Daryabari, Abbas; Talebnia, Ghodrattollah, Khodaei Valeh Zaghred, Mohammad, Ahmadi, Faegh & Vakilifard, Hamidreza (2020). Designing

- a model and evaluating the adjustment role of auditing committee features on the relationship between financial reportage quality and the risk of stock price fall in companies accepted in Tehran stock exchange.
- 10) Dastgir, Mohsen (2019). Effective factors on internal audit quality. *Accounting and auditing researches*, no 41.
  - 11) Sasani, Alireza & Sharifi Rad, Mohammad (2017). The quality of internal audit. *Auditor journal*, no 62.
  - 12) Soleimani Amiri, Gholamreza & Taheri, Mandana (2019). Ranking effective factors on the quality of internal audit activity: network analysis model, *auditing knowledge*. 2018; 18(71): 149-174.
  - 13) Sahami, Kourosh (2018). Investigating the relationship between inter-organizational and intra-organizational governance mechanisms in Tehran stock exchange. MA thesis, management and economics faculty of Shahid Bahonar University.
  - 14) Shariari, Mahdi (2017). The role of corporate governance system in the performance of companies accepted in Iran stock exchange.
  - 15) Saraf, Fatemeh & Rahmani, Hamid (2015). The effect of internal audit quality on independent auditing quality. The fourth national conference and the second international conference on accounting and management, Tehran
  - 16) Taheri, Mohammad; Khan Mohammadi, Mohammad Hamed, Jahangirnia, Hossein & Gholami Jamkarani, Reza (2021). Preparing the model of fiscal auditing quality promotion governance in tax on value added system of Iran
  - 17) Abdi, Roghayeh; Farahanifard, Mahsa & Poulaki, Mojdeh (2017). The effect of internal audit factors on auditing quality. The eighth international conference on accounting and management and the fifth conference of entrepreneurship and open innovations, Tehran
  - 18) Karrahi Moghaddam, Sirius & Mostofi, Alireza (2018). Corporate governance system and internal audit. *Journal of economics* (9), 12-17
  - 19) Kangarlouei, Saedi & Radi, Yaser (2016). Investigating the effect of management ability on corporate transparency focusing on adjustment effect of internal controls weakness in companies accepted in Tehran stock exchange
  - 20) Mojtahedzadeh, Vida & Aghaei, Parvin (2015). Effective factors on the quality of independent auditing from the point of view of independent auditors and users. *Accounting and auditing investigations*, no 53, pp: 38-76
  - 21) Mohseninia, Saeid; Babajani, Jafar & Bolo, Ghasem (2019). The pattern of internal audit quality. Issue 8, no 2, serial number 15, fall and winter 2019
  - 22) Mohammadi, Tofigh (2017). The nature of evaluation and investigation of challenges of transforming quantitative evaluations to qualitative evaluation (MA thesis). University of Tehran.
  - 23) Nourollahzadeh & Tashakori, Morteza & Asadi, Amir Hossein (2022). Investigating the effect of corporate governance on the quality of internal audit and managers' decision making.
  - 24) Nik Khah Azad, Ali (2016). The statement of the fundamental concepts of auditing. *Auditing organization publications*, journal number 999.
  - 25) Abor, J., and C.K.D. Adjasi (2017). 'Corporate Governance and the Small and Medium Enterprise Sector: Theory and Implications' *Journal of Corporate Governance* Vol.7 No.2.,
  - 26) Agbodzie, F. E. (2019). Assessing Internal Audit Quality in Quasi-Government Institutions (Doctoral dissertation, University of Cape Coast).
  - 27) Almutairi, A. R., & Quttainah, M. A. (2019). Corporate governance and accounting conservatism in Islamic banks. *Thunderbird International Business Review*, 61 (5), 745-764.
  - 28) Amrizal, D. (2017). The Development Model of Evaluation and Audit Internal Quality in University Of Sumatera Utara. In 2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2017). Atlantis Press.
  - 29) Anjonya, S.A., (1999). Institutional ownership and corporate social performance: the moderating effects of invest-ment horizon activism and coordination. *J. Manage.* 32 (1), 108–131.
  - 30) Claessens, J, Dem. V, Cock, D, Preneel, B & Vandewalle, J. (2014). On The Security of Today's Online Electronic Banking Systems. *Computers & Security*, 21 (3), 257-269.
  - 31) Colbert (2016). "Challenges in Performance Auditing: How a State Auditor with Intriguing New Performance Auditing Authority is Meeting them", Report No. 5.

- 32) Colbert (2016). "Challenges in Performance Auditing: How a State Auditor with Intriguing New Performance Auditing Authority is Meeting them", Report No. 5.
- 33) Cook, and Winkle, R. (2016), "Challenges in Performance Auditing".*Journal of Government Financial Management*, Vol. 55 Iss 4 pp. 20– 30.
- 34) Cook, and Winkle, R. (2016), "Challenges in Performance Auditing".*Journal of Government Financial Management*, Vol. 55 Iss 4 pp. 20– 30.
- 35) Deakin, J & Hughes, F . (2013). *Managing customer service*, Gower Publishing Limited, England.
- 36) Deakin, S., & Hughes, A. (1997). Comparative corporate governance: an interdisciplinary agenda. *JL & Soc'y*, 24, 1.
- 37) Dickin and Slinger, A., (1997). The effect of ownership structure on corporate social responsibility: empirical evidence from Korea. *J. Bus. Ethics* 104, 283–297.
- 38) Eulerich & Herrbach, O. (2019). Audit quality, auditor behaviour and the psychological contract, *The European Accounting Review*: 10 (4). 787-802.
- 39) Eulerich & Herrbach, O. (2019). Audit quality, auditor behaviour and the psychological contract, *The European Accounting Review*: 10 (4). 787-802.
- 40) Gros, M. Koch, S., & Wallek, C. (2017). Internal audit function quality and financial reporting: results of a survey on German listed companies, *Journal of Management & Governance*, June, Volume 21, Issue 2, pp 291–329.
- 41) Ibiro, E. O. (2019). Effect of Internal Audit Quality on Corruption in Nigeria Public Sector.
- 42) Jenkinson, T., And C. Mayer (2013). The assessment :Corporate governance and corporate control. *Oxford Review of Economic Policy*, 8, 3, 1-10.
- 43) Keasey, K., and Wright, B., (2013). Ownership concentration and CSR policy of European multinational enterprises. *J. Bus. Ethics*, 118 (1), 117–126.
- 44) Keasey, K., Thompson, S. and Wright, M., (2005). "Corporate governance", John Wiley & Sons Inc.
- 45) Lehn, K. (2021). Corporate governance and corporate agility. *Journal of Corporate Finance*, 101929.
- 46) Mati, B.M. (2013). Promoting farmer Innovation in Rainfed Agriculture in Sub-Saharan Africa. Mid-term evaluation of PFI programmes in Kenya, Tanzania and Uganda for the UNDP/UNSO. A consultancy report. Nairobi.
- 47) Mayer, J.D. (2013). What is emotional intelligence? In P. Salovey and D. Sluyter (eds.): *Emotional development and emotional intelligence :educational implications* (pp. 3-31). New York: Basic Books.
- 48) Shleifer, A., Vishny, R. (2013). A survey of corporate governance. *Journal of Finance* 52, 737}783.
- 49) Lenz, R. (2022). Insights into the effectiveness of internal audit: a multi-method and multi-perspective study, dissertation at the Université catholique de Louvain - Louvain School of Management Research Institute.
- 50) Mubako, G., O'Donnell, E. (2018). Effect of fraud risk assessments on auditor skepticism: Unintended consequences on evidence evaluation, *International Journal of Auditing*, Volume 22, Issue 1; 55-64. <https://doi.org/10.1111/ijau.12104>.
- 51) Mubako, G., O'Donnell, E. (2018). Effect of fraud risk assessments on auditor skepticism: Unintended consequences on evidence evaluation, *International Journal of Auditing*, Volume 22, Issue 1; 55-64. <https://doi.org/10.1111/ijau.12104>.
- 52) Nashwa, (2013). Audit Committees: The Solution to Quality Financial Reporting? *CPA Journal*.
- 53) Nashwa, (2022). Audit Committees: The Solution to Quality Financial Reporting? *CPA Journal*.
- 54) Nedyalkova, P. (2020). Applicability of Other Models for Internal Audit Quality Assessment. In *Quality of Internal Auditing in the Public Sector* (pp. 197-220). Springer, Cham.
- 55) Neut, S. V. D. (2019). Internal Audit Quality. A case study at a Dutch accounting firm.
- 56) Zeyn, E. (2018). The Effect of Internal Audit Quality on Financial Accountability Quality at Local Government. *Journal of Accounting, Business and Finance Research*, 4 (2), 74-82.