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Arastırma Makalesi

DOES INTERNAL AUDIT QUALITY MAKE DIFFERENCE ON FINANCIAL PERFORMANCE? (İÇ DENETİM KALİTESİ FİNANSAL PERFORMANS ÜZERİNDE FARK YARATIR MI?)

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ABSTRACT

Internal audit quality is one of the most important criteria that determines the level of fulfilment of the responsibilities expected from internal audit function. The aim in this study is to investigate whether performance of internal audit at a certain quality makes a difference in the financial performance of the enterprises. The sample set of the study consists of 21 companies that are successful in the External Quality Assurance Review studies, are awarded in this category by the Institute of Internal Auditing-Turkey. The results show that the internal audit quality in terms of external quality assessment review does not make a difference in the financial performance indicators of enterprises. As far as is known, the study differs in that it uses the external Quality Assurance Review study as an internal audit quality criterion and there is no study on this subject in the national literature.

Keywords: Internal Audit, Internal Audit Quality, External Quality Assurance Review, Financial Performance.

JEL Classification: M40, M42

ÖZ

İç denetimin kalitesi, iç denetim fonksiyonundan beklenen sorumlulukların karşılanma düzeyini belirleyen en önemli kriterlerdendir. Bu çalışmada, iç denetimin belirli bir kalitede gerçekleştirilmesinin işletmelerin finansal performanslarında bir farklılık yaratıp yaratmadığı araştırılmıştır. Çalışmanın örneklem kümesini Dış Kalite Güvence Değerlendirmesi çalışmalarında başarılı olan, Türkiye İç Denetim Enstitüsü tarafından bu kategoride ödüle layık bulunan 21 şirket oluşturmaktadır. Ulaşılan sonuçlar, dış kalite değerlendirme açısından bu denetim kalitesinin şirketlerin finansal performans göstergelerinde farklılık yaratmadığını göstermektedir. Bilindiği kadarıyla, bu çalışma iç denetim kalite ölçütü olarak Dış Kalite Güvence Değerlendirmesi'nin kullanılması ve ulusal literatürde bu konuda yapılan bir çalışma olmaması sebebiyle diğer çalışmalardan farklılaşmaktadır.

Anahtar Kelimeler: İç Denetim, İç Denetimin Kalitesi, Dış Kalite Güvence Değerlendirmesi, Finansal Performans.

JEL Kodları: M40, M42

1. INTRODUCTION

Globalization, diversification of business risks, developments in the field of information technologies and major institutional collapses have not only revealed the importance of internal audit, but also contributed to the change in internal audit activities. This change has emerged because of the differentiation of expectations from internal audit due to significant developments.

Internal audit functions constitute an important part of corporate governance structures in businesses. With its assurance and consultancy activities, internal audit contributes to the monitoring of business risks and to the evaluation of the effectiveness and adequacy of controls that will minimize the effects of those risks.

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Considering the importance of internal audit for businesses and the expectations of different parties from this activity, internal audit quality emerges as an important issue to focus on. The contribution that internal audit will provide to businesses or the value it will add to business activities may emerge through quality-oriented performance of its activities within the framework of certain standards and principles. Internal audit activities that have achieved a certain quality standard will be able to provide the expected contribution from them and may affect business performance positively.

In the international literature, there are some studies on the effect of the quality of internal audit activities on the financial performance of businesses. Almost all of these studies reveal that there is a statistically significant relationship between some variables regarding the quality of internal audit and business performance.

The aim of this study is investigating the relationship between internal audit quality and financial performance, to the best knowledge, for the first time in the national literature, and to analyze whether internal audit quality makes a difference on financial performance. In addition, by developing a different perspective from the studies in the international literature, internal audit external quality assurance review (QAR) studies carried out by independent experts are taken into account as an internal audit quality criterion. Businesses that are successful in QAR are given an award every year by the Institute of Internal Auditing - Turkey (TİDE) within the scope of "awareness awards". The companies that are successful in these reviews in Turkey are determined, and the effects of the results of this review on their financial performance are analyzed with the help of financial ratios selected from the financial data of the 12 quarters before and after the successful year (award year). Afterwards, analyzes are made using appropriate statistical methods.

The study consists of six sections following this one. In the first part, the theoretical framework for internal audit activities is given. After that, internal audit, the quality of internal audit and the internal audit quality assurance and improvement program (QAIP) including external QAR are explained. In the following section, results of the literature review are included. Finally, the study is finalized with statistical analysis and conclusion section.

2. THEORETICAL FRAMEWORK

There are some theories in the literature regarding the importance of internal audit functions for businesses and the reasons for their existence. The most prominent of these theories are the Agency Theory and the Transaction Cost Theory. In this section, explanations of both theories and their connections with the internal audit function are explained.

2.1. Agency Theory

According to the agency theory, businesses include the contractual connections between the owners, called principal, and the managers elected by them, called agents. This theory focuses on the principal agent relationship. It states that agents have more information than the principals have. The resulting information asymmetry between agents and principals makes it difficult for principals to monitor whether the agents are actually carrying out their actions taking into account the interests of the principals rather than their own personal interests. According to this theory, an agency relationship emerges between principals and agents. Principals and agents act rationally and use the contracting process for maximizing their wealth (Jensen & Meckling, 1976).

In such a relationship, the role of internal audit comes to the fore. The internal audit function provides support to the principals' monitoring function, as an agent for the principals. Principals are informed through the work carried out by the internal audit, and information flow is provided to the principals as to whether the agents really consider the interests of the business rather than their own. Because principals do not fully trust their agents, the internal audit function comes into play. From this point of view, within the framework of the agency theory, the internal audit function fulfills an important task in strengthening the trust between principals and agents and establishing governance mechanisms within the enterprise for agents to prioritize company interests (El Gharbaoui, 2021, p. 300).

At the same time, the aforementioned relationship brings along the agency costs. Agency problem that arises between principals and agents leads to the emergence of internal agency costs. At this point, the monitoring mechanism performed by internal audit units contributes to reducing these internal agency costs (Fama, 1980; Fama & Jensen, 1983).

2.2. Transaction Cost Theory

A transaction takes place when a good or service is transferred over a technologically separable interface. There are two groups for evaluating transaction costs which are before and after the contract. Pre-contract costs include the costs of preparing, negotiating and maintaining the contract. Post-contract costs include the costs that may arise during the execution of the contract (Williamson, 1981, p. 552). According to Williamson (1985), businesses tend to establish

governance mechanisms for the most efficient execution of a transaction. Businesses tend to lower transaction costs compared to the markets in which they operate.

This theory focuses on the information-providing role of internal auditing. The main purpose of internal audit is identifying the efficiency and adequacy of the internal control mechanisms within the enterprise and to what extent they reduce the risks (Spraakman, 1997, p. 323). At the same time, it provides information to the top management that they can benefit from for cost savings by performing internal audit, operational and financial controls. In addition, with the help of the information provided by the internal audit function, the top management will be able to better understand the business activities and take the necessary measures by recognizing the improvement areas for cost savings (Williamson, 1985).

According to this theory, the presence of internal audit units with industry knowledge will contribute to the formation of a more cost-effective contracting mechanism in large and complex businesses. Therefore, the principals will be able to control whether the agents shirk from work or whether they act in line with their own interests. Internal audit will also provide assurance for the effectiveness and adequacy of controls within the business (Ismael & Roberts, 2018, p. 295).

3. INTERNAL AUDIT

In its generally accepted definition, internal audit is a both assurance and consulting activity that focuses on improving the operations of businesses and adding value to them. It reviews the risk management, governance & control processes of organizations, evaluates the effectiveness and adequacy of the controls in these processes, and contributes to the achievement of the objectives of the enterprises (IIA, 2019, p. 242). Based on this definition, the scope of the internal audit function is as the following (Iovu, 2018, pp. 25-26):

- Review of risk management processes,
- Audit of governance processes,
- Reviewing the effectiveness and adequacy of internal control systems (protection of business assets, compliance with laws and regulations, effectiveness and adequacy of business activities, accuracy of financial and operational data),
- Audit of processes for information systems,
- Carrying out consultancy duties other than audit work.

Two main types of services of internal auditing are assurance and consulting activities. Assurance activities include independent evaluations of the risk management, governance and control processes of the enterprise by the internal auditors (Selimoğlu & Özbek, 2018, p. 102). Consulting activities, on the other hand, include the internal auditors' making suggestions for business activities within the framework of their professional expertise and knowledge (Özgül & Tarhan Mengi, 2018, p. 130). Internal auditors perform their consultancy activities without assuming managerial responsibility and in a way that does not cause conflicts of interest.

The internal audit function adopts a systematic and disciplined perspective while performing its duties. This means systematically performing tasks within a specific plan and schedule. Internal audit function applies four basic processes in the most general sense while fulfilling its responsibilities. These processes are as follows (IIA, 2019):

- Planning the assurance and consultancy activities to be carried out by the internal audit unit during the year,
- Planning and realization of individual studies,
- Reporting of study results,
- Monitoring and follow-up of reported results.

Internal audit is one of the most important tools in the stages of identifying and preventing the risks that the enterprise is exposed to (Gökoğlan et al., 2022, p. 16). The most important contribution of internal auditing to businesses is supporting companies to reach their determined targets by fulfilling its assurance and consulting responsibilities for risk management, corporate governance and control processes (Çakalı, 2021, p. 78). Also, businesses with strong internal audit functions will be more successful than other companies in terms of establishing controls and increasing efficiency. For this reason, the existence of effectively functioning internal audit mechanisms is extremely important for companies. However, establishing effective internal audit mechanisms and monitoring their functionality is a matter of responsibility of the top management of the institutions (Gökoğlan, 2022, p. 950).

By fulfilling its responsibilities within the scope and processes specified above, the internal audit activity provides assurance to senior management, audit committee and board of directors of the enterprise that the risks within the organization are understood, identified and managed in a healthy way, and whether the existing controls in the processes are functioning effectively.

4. INTERNAL AUDIT QUALITY AND INTERNAL AUDIT QUALITY ASSURANCE AND IMPROVEMENT PROGRAM

4.1. Internal Audit Quality

When the quality of internal auditing is mentioned, the first thing that comes to mind is the internal audit reports prepared by the internal auditors. However, many factors and processes must be fulfilled before these reports are prepared. The quality of these reports depends on the performance of processes such as the position, impartiality and independence of internal audit within the enterprise, the planning of the audit, the realization of fieldwork, the supervision and management of internal audit activities, and communication. The monitoring process after reporting should also be carried out with the same quality (Ünlü, 2013, pp. 33-34).

There is no generally accepted definition for the quality of internal audit in the literature. On the other hand, studies in which different variables are accepted as determinants of internal audit quality show that internal audit quality contributes to businesses in the prevention of fraud, reducing risks, improving controls, minimizing opportunistic behaviors, and reducing external monitoring costs (Ege, 2015; Prawitt et al., 2009).

Studies have focused on the different dimensions of the internal audit function in determining its quality. Mainly used evaluation criteria are as the following (Getie Mihret et al., 2010; Ondieki, 2013; Farouk & Hassan, 2014; Alwala & Biraori, 2015; Usang & Salim, 2016; Dahir, 2016; Bello et al., 2017; Kwabena, 2017; Barzan, 2018; Kebede & Chufameo, 2019; Wambui, 2019; Mulyadi et al., 2019; Hazaea, 2020; Noei et al., 2020; Fisseha, 2021; El Hammoumi et al., 2022; Ahmeti et al., 2022):

- Organizational independence of the internal audit function,
- Objectivity,
- Size of the team performing internal audit activities,
- Skills and competencies of the internal auditors,
- Internal auditors' experience, education levels and professional expertise,
- Support internal audit receives from senior management and implementation level of internal audit recommendations,
- Presence of an approved charter of the internal audit unit and
- Level of compliance with international standards.

In the studies carried out on the subject, evaluations are made by taking into account some of the variables determined above in the measurement of internal audit quality. When the evaluation criteria are examined, it is concluded that different criteria are taken as a basis in different academic studies, a uniform criterion is not used, and evaluations are carried out by using only some of these criteria. For this reason, it is thought that studies with different variables may not fully reflect the total quality of internal audit activities. Just at this point, the importance of internal audit external QAR within the scope of the internal audit QAIP emerges. In the following section, basic information about the internal audit QAIP is given and its importance in assessing the quality of internal audit activities is explained.

4.2. Internal Audit Quality Assurance and Improvement Program

Internal audit QAIP evaluates whether internal audit activities are carried out in line with international standards. The result of this evaluation is important for the internal audit unit itself as well as for other stakeholders who benefit from the outputs of the internal audit function. (Özbek, 2012, p. 768). The scope of the program consists of all fields of activity of internal audit. The work of the internal audit unit is reviewed in terms of compliance with international standards and ethical rules, and its effectiveness and competence are evaluated (Özbek, 2012, p. 771).

The International Standards for Professional Practice of Internal Auditing (standards) focus on internal audit quality, as well as describe the principles for the working procedures and principles of internal audit activities. Within the scope of

the standards, the basic criterion of internal audit quality has been determined as the internal audit QAIP studies to be carried out.

There are two types of assessments in the standards. These are; internal and external assessments. While internal assessments include self-evaluation studies carried out periodically by the internal audit unit, external assessments include evaluation studies conducted by independent experts outside the institution. External assessments should be carried out at least every five years. Experts who carry out external assessments must be outside the institution and have sufficient competencies on the subject (IIA, 2019, p. 50). External assessments consist of visits, examining the results of the surveys made to the employees of the institution, conducting on-site evaluation studies, meeting with other units within the institution, making an evaluation within the scope of best practices and forming the final evaluation opinion (Özbek, 2012, pp. 784-785).

The main objectives of external assessments to be carried out for internal audit activities can be summarized as follows (IIA, 2017, p. 9):

- Reviewing the effectiveness and adequacy of the activities of the internal audit unit within the framework of the internal audit unit's regulation, business objectives, the expectations of the board of directors, audit committee and senior management of the enterprise from internal audit, the needs of the internal audit unit and potential opportunities.
- Increasing the credibility of the internal audit function and adding value to business activities by developing internal audit activities, identifying potential opportunities, suggesting improvements, and implementing recommendations.
- Expressing an opinion on the compliance of the internal audit unit's activities with international standards.

When the purpose and scope of the external assessments are evaluated, it is understood that the quality elements of internal auditing, which were stated in the previous section, were evaluated collectively within the scope of the said study and a final opinion was reached.

External evaluations appear as the most basic and objective indicator of internal audit quality, as they are carried out by independent experts from outside the institution and take into account all phases of the internal audit function and all the evaluation criteria specified in the previous section. It wouldn't be wrong to say that the internal audit units that are successful in these studies carry out their work with a certain quality.

5. LITERATURE REVIEW

Literature review is performed in this section. Information on academic studies regarding the relationship between internal audit quality and financial performance is given in Table 1. There is no study in the national literature on this subject. In addition, there are some studies in the international literature on this subject.

When the studies in the international literature are examined, it has been identified that the variables mentioned in the previous sections as a measure of the quality of internal auditing are used in different ways to investigate the performance effects. In this study, unlike the aforementioned studies, the focus is on internal audit QAR and the performances of businesses that have successfully completed this assessment. It is thought that this study can contribute to the literature, both in this respect and because to the best knowledge that there is no study investigating the relationship between internal audit quality and financial performance in the national literature.

Table 1. Literature Review

Author(s)	Scope and Results
Hutchinson & Zain (2009)	They investigated the effect of internal audit quality on ROA (Return on Asset). In the study conducted on public companies operating in Malaysia, there is a significant relationship in the same direction between the mentioned variables.
Prawitt et al. (2009)	The study examined the relationship between internal audit quality and earnings management of. The results reveal that internal audit quality has impact on earnings management.

Does Internal Audit Quality Make Difference On Financial Performance?
Kaan Ramazan ÇAKALI, Gürol BALOĞLU

Getie Mihret et al. (2010)	The implementation of international standards by internal auditors positively affects probability indicators of enterprises.
Ondieki (2013)	The study examines the relationship between internal audit quality and financial performance in banking sector. Implementation of internal auditing standards, professional competence and independence positively affect financial performance in banking sector.
Farouk & Hassan (2014)	They analyzed the effect of internal audit quality on business performance of publicly traded companies operating in the cement sector. The independence and size of the internal audit unit positively affect the net profit margin.
Alwala & Biraori (2015)	They examined the relationship between the independence of internal audit units of publicly traded companies and stock market performance. They found a positive relationship between the mentioned variables.
Alaswad & Stanisic (2016)	They conducted a study on the effect of internal audit quality on performance in businesses operating in the financial sector. The qualifications and experience of internal auditors have a positive effect on business performance.
Usang & Salim (2016)	The study explored the relationship between the quality of internal audit activities and the performance of local governments. Independence level, competencies, training and the support of senior management to internal audit positively affect local government performance.
Dahir (2016)	The study examined the relationship between internal audit quality and financial performance. They found out a same-sided relationship between the independence of the internal audit function, the skills and competencies of the internal auditors and business performance indicators.
Bello et al. (2017)	They investigated the internal audit quality and the performance of public universities. While there is a positive relationship between the competencies of the internal auditors and their performance, they identified a negative relationship between independence of internal auditors and financial performance.
Kwabena (2017)	The study investigated the impact of internal audit quality on financial performance in publicly traded companies. Competencies of the internal auditors, their independence, the quality of their work and the support internal audit function receives from senior management have positive effect on ROA.
Su et al. (2017)	They investigated the relationship between internal audit quality and corporate value in publicly traded companies. Results of the analysis show that internal audit quality has a positive effect on corporate value.
Barzan (2018)	The study analyzed the factors influencing the effectiveness of internal audit and the relationship between these factors and the financial performance of businesses. Competencies and independence of internal audit function and the size of the internal audit team have impact on business performance.
Kebede & Chufameo (2019)	The effect of internal audit quality on the performance of public institutions has been investigated. There is a one-way relationship between the independence of the internal auditors, competencies of the internal audit team, existence of the internal audit regulation, and the support of the senior management to internal audit function and performance.

Wambui (2019)	The study investigated the impact of internal audit quality on the financial performance of commercial banks. Results of the study reveal that, professional and technical competencies and education levels of internal auditors affect business performance positively.
Mulyadi et al. (2019)	They analyzed the relationship between quality of internal audit and financial performance of universities. There is a direct relationship between the size of the internal audit team, the work experience of internal auditors and performance. On the other hand, professional expertise of internal auditors does not affect performance.
Hazaea et al. (2020)	They analyzed the effect of internal audit quality on the financial performance of commercial banks. Factors affecting internal audit quality were determined as independence, compliance with international standards, implementation of governance principles, size of internal audit function and audit committee meeting frequency. The results show that there is a positive relationship between independence, compliance with international internal auditing standards, application of governance principles and business performance.
Noei et al. (2020)	They analyzed the effect of internal audit quality on bank performance. The sample set of their analysis consists of data of 16 publicly traded banks for the period 2015-2017. Experience and neutrality of internal auditors positively affect stock price growth and financial performance.
Fisseha (2021)	Within the scope of the study, a questionnaire was applied to 145 personnel. It has been determined that the competencies and independence of the internal auditors, existence of the approved internal audit regulation and the support of senior management to the internal audit function have positive effect on the business performance.
Imo (2021)	He analyzed the impact of internal audit quality on performance in the hospitality industries. The quality of internal audit work has positive effect on operating profitability, especially with its role in protecting assets.
Dsouza & Jain (2021)	There is a significant relationship between the characteristics of the internal audit function and financial stability of the enterprises.
El Hammoumi et al. (2022)	Competence and independence of internal auditors' have positive effect on financial performance.
Ahmeti et al. (2022)	They analyzed the impact of internal audit quality on ROE (Return on Equity) for companies operating in insurance sector. Competence of internal auditors has positive effect on ROE. On the other hand, efficiency of internal audit has negative impact on ROE. Results of the study also reveal that independence and standards of internal auditing have negative but insignificant effect on ROE.

(Prepared by authors)

6. ANALYSIS: DOES INTERNAL AUDIT QUALITY MAKE DIFFERENCE ON FINANCIAL PERFORMANCE?

In this section, an analysis is performed on the relationship between internal audit quality and financial performance. As it is understood from the results of the literature review, it can be argued that the internal audit quality has a positive effect on the financial performance of the enterprises. For this reason, in the study to be conducted in this section, it is expected that the post-evaluation financial performance of the enterprises that are successful in the internal audit external QAR will differ from their pre-evaluation financial performance.

6.1. Objective and Scope

The aim of this study is to analyze whether the internal audit quality causes any difference on the financial performance of the enterprises. Businesses that are successful in the internal audit external QAR are included in the analysis. These enterprises are awarded in this category with awareness awards given by TİDE every year, and the list of these institutions has been obtained from the TİDE website. Financial statements of 3 years (12 quarters) before and after the award date of these companies are used in the analysis.

Between 2011 and 2021, 46 enterprises are awarded by TİDE in this category (www.TİDE.org.tr). However, public institutions and businesses whose financial data for the selected period cannot be accessed are excluded from the scope of the study and the remaining 21 enterprises whose financial data can be obtained constitute the sample set of the study.

6.2. Limitations

There are some limitations of the study. These constraints arise due to the lack of information and data on the subject. The first limitation is inclusion of only those businesses that are successful in the internal audit external QAR. Therefore, the authors used a small sample to test the relationship between internal audit quality and financial performance. On the other hand, there may be businesses that have not been involved in this assessment process but have achieved a certain quality in internal auditing. A second limitation is that the information about companies that are involved in QAR process but failed cannot be included in the scope of the study due to the lack of information. In addition, since the 3-year financial data before and after the assessments are analyzed, the businesses that are successful in 2019 and after are not included in the scope because the next 3-year full financial data does not occur. In addition, one-quarter financial data of two businesses cannot be obtained and these data are excluded from the scope of the analysis. Businesses whose financial data for the required years cannot be accessed are also excluded from the scope. Finally, two companies with negative equity are excluded from the study as this will render their financial ratios meaningless.

6.3. Method and Hypotheses

In this study, internal audit quality and financial performance relation is analyzed using some financial ratios. For this purpose, performance indicators obtained from financial ratios of 21 companies included in the sample, before and after the year they received the internal audit external QAR award, for 12 quarters are analyzed. For measuring financial performance, 4 financial ratios are selected, 12 quarterly averages before and after the relevant dates are taken and compared with appropriate statistical methods.

However, there are also assessments in which the same enterprise is successful on different dates, considering the necessity of making the said evaluation every five years within the framework of the international standards. In this case, only the date of the first assessment, in which the relevant enterprise is successful, is included in the scope of the analysis.

List of enterprises included in the study is given in the Table 2 below.

Table 2. List of Enterprises

Company	Sector	Award Year	Included Financial Data (Years)
Hacı Ömer Sabancı Holding	Financial Institutions/ Holding and Investment Companies	2011	2008-2009-2010 & 2012-2013-2014
Coca Cola İçecek	Manufacturing/ Food, Beverage and Tobacco	2011	2008-2009-2010 & 2012-2013-2014
TAV Havalimanları Holding	Financial Institutions/ Holding and Investment Companies	2011	2008-2009-2010 & 2012-2013-2014
Türkiye İş Bankası	Financial Institutions/ Banks	2011	2008-2009-2010 & 2012-2013-2014

Does Internal Audit Quality Make Difference On Financial Performance?
Kaan Ramazan ÇAKALI, Gürol BALOĞLU

Türk Telekomünikasyon	Transportation, Storage and Telecommunication/ Telecommunication	2011	2008-2009-2010 & 2012-2013-2014
Yapı Kredi	Financial Institutions/ Banks	2011	2008-2009-2010 & 2012-2013-2014
Anadolu Endüstri Holding	Financial Institutions/ Holding and Investment Companies	2011	2008-2009-2010 & 2012-2013-2014
Kuveyt Türk	Financial Institutions/ Banks	2012	2009-2010-2011 & 2013-2014-2015
Albaraka Türk	Financial Institutions/ Banks	2012	2009-2010-2011 & 2013-2014-2015
Borusan Holding	Financial Institutions/ Holding and Investment Companies	2013	2010-2011-2012 & 2014-2015-2016
Türkiye Finans	Financial Institutions/ Banks	2013	2010-2011-2012 & 2014-2015-2016
ING Bank	Financial Institutions/ Banks	2014	2011-2012-2013 & 2015-2016-2017
Ak Sigorta	Financial Institutions/ Insurance Companies	2014	2011-2012-2013 & 2015-2016-2017
QNB Finansbank	Financial Institutions/ Banks	2014	2011-2012-2013 & 2015-2016-2017
Anadolu Efes	Manufacturing/ Food, Beverage and Tobacco	2015	2012-2013-2014 & 2016-2017-2018
İttifak Holding	Financial Institutions/ Holding and Investment Companies	2015	2012-2013-2014 & 2016-2017-2018
Kordsa	Manufacturing/ Textile, Wearing Apparel and Leather	2015	2012-2013-2014 & 2016-2017-2018
Agesa	Financial Institutions/ Insurance Companies	2015	2012-2013-2014 & 2016-2017-2018
Denizbank	Financial Institutions/ Banks	2017	2014-2015-2016 & 2018-2019-2020
Migros	Wholesale and Retail Trade, Restaurants and Hotels/ Consumer Trade	2018	2015-2016-2017 & 2019-2020-2021
Neova Sigorta	Financial Institutions/ Insurance Companies	2018	2015-2016-2017 & 2019-2020-2021

(www.tide.org.tr, www.kap.org.tr)

Does Internal Audit Quality Make Difference On Financial Performance?
Kaan Ramazan ÇAKALI, Gürol BALOĞLU

The financial ratios used in the evaluation of the financial performance of the mentioned enterprises are shown in Table 3 below.

Table 3. Financial Ratios

#	Financial Ratios
1	Return on Asset (ROA)
2	Return on Equity (ROE)
3	Profit Before Tax/ Total Assets (PBT/ TA)
4	Net Profit for the Period/ Paid Capital (NPP/ PC)

Considering these selected financial ratios and the results obtained from the literature review on the relationship between internal audit quality and financial performance, the following hypotheses are formed:

H₁: Internal audit quality in terms of external QAR has resulted in a difference on ROA.

H₂: Internal audit quality in terms of external QAR has resulted in a difference on ROE.

H₃: Internal audit quality in terms of external QAR has resulted in a difference on profit before tax/ total assets ratio.

H₄: Internal audit quality in terms of external QAR has resulted in a difference on net profit for the period/ paid capital ratio.

The details of the analysis and findings of the study are explained in the following section.

6.4. Analysis and Findings

In the study, after determining the sample set and the financial performance indicators to be used and forming the hypotheses, it is first tested whether the data meet the normal distribution conditions. For this purpose, Kolmogorov-Smirnov and Shapiro-Wilk tests are applied. The obtained results are given in Table 4.

Table 4. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA (Before)	.287	21	.000	.857	21	.006
ROE (Before)	.264	21	.000	.657	21	.000
PBT/ TA (Before)	.424	21	.000	.324	21	.000
NPP/ PC (Before)	.230	21	.005	.663	21	.000
ROA (After)	.231	21	.005	.830	21	.002
ROE (After)	.148	21	.200*	.938	21	.202
PBT/ TA (After)	.237	21	.003	.812	21	.001
NPP/ PC (After)	.219	21	.010	.780	21	.000

*. This is a lower bound of the true significance.

^a. Lilliefors Significance Correction.

In samples satisfying the assumptions of normal distribution, significance value greater than 0.05 is considered significant (Bursal, 2019: 50). If the data meet the normality conditions, whether there is a significant difference between the two variables is determined by the Paired Sample t-test. If the normality conditions are not met, the non-parametric equivalent of the Paired Sample t-test, Wilcoxon Signed Ranks test is used (Baştürk, 2016: 164-165).

According to the results of the normality tests in Table 4, while ROE meets the normality condition, other variables do not meet this condition. For this reason, hypotheses for the variables meeting the normality assumptions are tested using the paired sample t-test and the others using the Wilcoxon Signed Ranks test. The results obtained for each hypothesis are given below.

H₁: Internal audit quality in terms of external QAR has resulted in a difference on ROA.

Since the data regarding the ROA variable does not meet the normal distribution conditions, H₁ is tested with the Wilcoxon Signed Ranks test. Test results are presented in Table 5 and Table 6.

Table 5. Ranks

ROA (after) - ROA (before)	N	Mean Rank	Sum of Ranks
Negative Ranks	8 ^a	12.44	99.50
Positive Ranks	12 ^b	9.21	110.50
Ties	1 ^c		
Total	21		

^a. ROA (after) < ROA (before)

^b. ROA (after) > ROA (before)

^c. ROA (after) = ROA (before)

Table 6. Test Statistics

	ROA (after) – ROA (before)
Z	-.205 ^a
Asymp. Sig. (2-tailed)	.837

^a. Based on negative ranks

^b. Wilcoxon Signed Ranks Test

The significance value of Wilcoxon Signed Rank test result is found to be .837 > .05. This shows that there is no statistically significant difference between the groups and the H₁ hypothesis is rejected.

H₂: Internal audit quality in terms of external QAR has resulted in a difference on ROE.

The data regarding the ROE variable meets the normal distribution conditions. For this reason, H₂ is tested with the Paired Sample t-test. The test results are presented in Table 7 below.

Does Internal Audit Quality Make Difference On Financial Performance?
Kaan Ramazan ÇAKALI, Gürol BALOĞLU

Table 7. Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 ROE (before) – ROE (after)	.04071	.17254	.03765	-.03782	.11925	1.081	20	.292

The significance value of Paired Sample t-test result is found to be $.292 > .05$. This shows that there is no statistically significant difference between the groups and the H_2 hypothesis is rejected.

H_3 : Internal audit quality in terms of external QAR has resulted in a difference on profit before tax/ total assets ratio.

The data regarding the profit before tax/ total assets ratio does not meet the normal distribution conditions. For this reason, H_3 is tested with the Wilcoxon Signed Ranks test. The test results are presented in Table 8 and Table 9.

Table 8. Ranks

PBT/ TA (after) – PBT/ TA (before)	N	Mean Rank	Sum of Ranks
Negative Ranks	8 ^a	12.63	101.00
Positive Ranks	13 ^b	10.00	130.00
Ties	0 ^c		
Total	21		

^a. PBT/ TA (after) < PBT/ TA (before)

^b. PBT/ TA (after) > PBT/ TA (before)

^c. PBT/ TA (after) = PBT/ TA (before)

Table 9. Test Statistics

PBT/ TA (after) – PBT/ TA (before)	
Z	-.504 ^a
Asymp. Sig. (2-tailed)	.614

^a. Based on negative ranks

^b. Wilcoxon Signed Ranks Test

The significance value of Wilcoxon Signed Rank test result is found to be $.614 > .05$. This shows that there is no statistically significant difference between the groups and the H_3 hypothesis is rejected.

H_4 : Internal audit quality in terms of external QAR has resulted in a difference on net profit for the period/ paid capital ratio.

Since, the data regarding the net profit for the period/ paid capital ratio does not meet the normal distribution conditions, H_4 is tested with the Wilcoxon Signed Ranks test. The test results are presented in Table 10 and Table 11.

Table 10. Ranks

NPP/ PC (after) – NPP/ PC (before)	N	Mean Rank	Sum of Ranks
Negative Ranks	13 ^a	11.46	149.00
Positive Ranks	8 ^b	10.25	82.00
Ties	0 ^c		
Total	21		

^a. NPP/ PC (after) < NPP/ PC (before)

^b. NPP/ PC (after) > NPP/ PC (before)

^c. NPP/ PC (after) = NPP/ PC (before)

Table 11. Test Statistics

NPP/ PC (after) – NPP/ PC (before)	
Z	-1.164 ^a
Asymp. Sig. (2-tailed)	.244

^a. Based on positive ranks

^b. Wilcoxon Signed Ranks Test

The significance value of Wilcoxon Signed Rank test result is found to be $.244 > .05$. This shows that there is no statistically significant difference between the groups and the H_4 hypothesis is rejected.

7. CONCLUSION

Internal audit is one of the most important corporate governance mechanisms in businesses. The assurance and consultancy services provided by the internal audit add value to business activities. In addition, with the help of internal audit engagements risk management, governance and control processes are reviewed, the effectiveness and adequacy of existing controls are evaluated, and suggestions are made to prevent future risks. In this way, the work carried out by the internal audit function provides assurance to senior management, shareholders and stakeholders. It is important to apply some standards and principles by adhering to certain quality criteria in internal audit engagements to provide the expected benefit from this function and to meet the expectations of the relevant parties.

Considering the importance of internal audit and the value, it adds to businesses, the question comes to mind whether internal audit activities that meet certain quality standards affect financial performance. The aim in this study is to investigate the relationship between internal audit quality and financial performance and to determine whether the financial performances of businesses that have reached a certain level of quality in internal auditing differ compared to previous periods.

From the studies in the international literature, it is identified that analyzes are made by using one or more of the variables such as independence, objectivity, the skills and competencies of the internal auditors, their experience, education levels, professional expertise, etc. in the measurement of internal audit quality. Almost all of the studies conducted using these variables have concluded that the quality of internal audit positively affects financial performance and companies that reach a certain level of quality in internal audit activities differ from others in terms of financial performance.

In this study, unlike other studies in the literature, internal audit external QAR, which takes into account all the variables analyzed in other academic studies, are used in the measurement of internal audit quality. The enterprises that are successful in the external QAR and are awarded by TİDE in this category are determined, and the financial performances of these enterprises for the 12 quarters before and after the award date are analyzed with the help of selected financial ratios. Hypotheses are defined and tested using either the Wilcoxon Signed Rank Test or Paired Sample t-test depending on whether the data meets or does not meet the normal distribution criteria.

The results show that the internal audit quality in terms of external QAR does not make a difference in the financial performance indicators of the companies. In the international literature review, it is identified that the variables mentioned

in the previous sections as a measure of the quality of internal auditing are used in different ways to investigate the performance effects. Almost all of these studies have concluded that the quality of internal audit positively affects business performance. To conclude, our study, which is conducted from a different perspective, reveals different results from the results of the studies in the international literature.

To the best knowledge, this is the first study examining internal audit quality in terms of external QAR. In addition, it is the first study in the national literature investigating the relationship between internal audit quality and financial performance. Because of these aspects, this study will contribute to the literature.

The study has some limitations, as stated in the limitations section. These constraints are due to the lack of data and information on the subject. Despite this, it is thought that this study may offer a different perspective to future studies in this field. In the future, academic studies will be conducted in which internal audit quality is considered as external QAR, financial performance is analyzed from different perspectives with external QAR, or the relationship between external QAR and different variables are analyzed.

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