# RELATIONSHIP BETWEEN INTERNAL AUDIT FACTORS AND CORPORATE GOVERNANCE

George Drogalas \*, Evgenia Anagnostopoulou \*, Andreas Koutoupis \*\*, Michail Pazarskis \*\*\*

\* Department of Business Administration, University of Macedonia, Greece

\*\* Corresponding author Department of Accounting and Finance, Technological Educational Institute of Thessaly, Greece

Contact details: Department of Accounting and Finance, Technological Educational Institute of Thessaly, 411 10 Larissa, Greece

\*\*\* Department of Accounting and Finance, Technological Educational Institute of Central Macedonia, Greece



How to cite this paper: Drogalas, G., Anagnostopoulou, E., Koutoupis, A., & Pazarskis, M. (2018). Relationship between internal audit factors and corporate governance. Journal of Governance & Regulation, 7(3), 13-17. http://doi.org/10.22495/jgr\_v7\_i3\_p2

Copyright © 2018 The Authors

This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0) <a href="http://creativecommons.org/licenses/by-nc/4.0/">http://creativecommons.org/licenses/by-nc/4.0/</a>

ISSN Print: 2220-9352 ISSN Online: 2306-6784

Received: 02.04.2018 Accepted: 12.08.2018

**JEL Classification:** M41, M42, G34 **DOI:** 10.22495/jgr\_v7\_i3\_p2

#### Abstract

In the aftermath of major corporate financial scandals, corporate governance and internal control frameworks have been extensively developed and adopted by corporations worldwide. This study investigates the importance of internal audit in corporate governance and, simultaneously, the degree of importance of the internal auditor regarding corporate governance. An empirical survey was conducted by distributing a questionnaire in Greek firms listed on the Athens Stock Exchange. Regression analysis is used in order to illustrate the gathered information. The findings indicate that internal audit has a great impact on the effectiveness of corporate governance. More particularly, internal audit quality and internal audit senior management support are statistically significantly associated with enhanced corporate governance effectiveness, in contrast to the audit committee independence which is not statistically significant.

**Keywords:** Corporate Governance, Internal Audit, Audit Committee, Internal Auditor, Management

## 1. INTRODUCTION

As a result of the highly publicized accounting scandals in the 1980s and 1990s, internal audit has received greater attention as an important contributor to effective corporate governance (Prawitt, 2009). In an attempt to restore trust, many corporate reforms have increased responsibilities of internal audit (Bertin, 2007). In this context, the internal audit plays an important role in increasing the reliability of the internal control system, improving the risk management process and defending the principles of best corporate governance (Van Peursem, 2004; Sarens, et al., 2009). In particular, internal audit supports and strengthens the liability system that should have the executive bodies of the enterprise, but also the employees to owners and stakeholders. auditing is conducted in diverse legal and cultural environments; within organizations, providing a number of important services to company management (Coram et al, 2008). The aim of the internal audit is to improve organizational efficiency

and effectiveness through constructive criticism (Cohen and Sayag, 2010).

Simultaneously, all companies all over the world have been challenged to improve corporate governance processes. Thus, corporate governance as a field of study, has gained importance to develop standards which can detect or prevent corporate failures (Braendle et al., 2013; Haedar and Rao, 2014; Zufar, 2014; Soliman et al., 2014). Corporate governance is defined as the structure and processes among the board of directors, shareholders, top management and other stakeholders, and involves the roles of the stewardship process and exercising strategic leadership, and the objectives of assuring accountability and improving performance (Baker and Anderson, 2010). Finally, according to Brown and Casey (2012) "the most fundamental principles of corporate governance is a function of the distribution of power within a company between the shareholders and the board".

For several years now, a large body of research experts has been emphasizing the need to strengthen Corporate Governance (Gamal, 2015). On the contrary, only limited research on the



relationship between internal audit and corporate governance has been conducted. In view of the limited internal audit research in Greece, this study attempts to provide insights into the crucial factors that lead to effective corporate governance. The paper adds to the existing literature on corporate governance by documenting the association between corporate governance and internal auditors' role. More particularly, the study fills a gap in the studies on the relationship between internal audit and corporate governance in Greece demonstrating the internal auditors' role.

The remainder of this study is organized in the following manner. The next section outlines the literature review and develops the key hypotheses. Then, we describe the data. This section is followed by the empirical results. The final section provides concluding comments and recommendations for future research.

#### 2. LITERATURE REVIEW

#### 2.1. Corporate governance and internal audit quality

Internal audit is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations (Drogalas et al, 2014). The quality of internal audit helps an organization to accomplish its objectives by providing a systematic approach to evaluate and improve the effectiveness of risk management and processes, internal control corporate governance (Coram et al., 2008). In this context, Karagiorgos et al. (2010) recognize the contribution of internal audit to enhancing the effectiveness of corporate governance. The results of their study confirm the positive relationship between the broad attributes of corporate governance and internal audit. Moreover, the International Professional Practice Framework (IPPF), developed by the Institute of Internal Auditors in North America, states that the internal audit activity should assess and make appropriate recommendations for improving the governance process (IPPF, 2017). Moreover, Saud and Marchand (2012) examined the contribution of internal audit to effective corporate governance. The results showed that the internal audit contributes to the achievement of organization goals and enhance the organization's corporate governance.

Moreover, internal auditors are charged with ensuring that corporate processes and associated controls are functioning as intended. Savcuk (2007) stated that internal auditors are developing new strategies and are becoming more proactive, providing a broadened variety of services. Cohen and Sayag (2010) find that appropriate staffing of an internal audit department and good management of that staff are keys to the effective operation of an internal audit and effective corporate governance.

The above discussion leads to the first hypothesis for this study.

 $H_1$ : The quality of internal audit positively affects the effectiveness of corporate governance.

## 2.2. Corporate governance and internal audit senior management support

The expectations and support of senior management have been examined as a critical factor of enhanced internal control quality and corporate governance effectiveness. In their study of internal audit, Sarens and De Beelde (2006) show that senior management expects that internal audit should be able to compensate for the loss of control due to increased organisational complexity. On the other hand, internal audit expects senior management to support the internal audit process. Odoyo and Omwono (2014) examined corporate governance in Kenya seeking the views of corporate directors. The findings revealed that the Audit Committee is part of the Board and is of major importance for effective corporate governance. The establishment of the audit committee demonstrates the commitment of the Board for effective internal audit. Finally, Endaya and Hanefah (2016) in their research regarding internal control in Libya show that the internal auditor's characteristics have a significant impact on internal audit effectiveness, and senior management support has a moderating effect.

According to the above, the second research hypothesis can be developed as follows:

H<sub>2</sub>: Internal audit senior management support positively affects the effectiveness of corporate governance.

## 2.3. Corporate governance and audit committee independence

Eulerich et al. (2015) on their study on the effectiveness and efficiency of corporate governance show that the internal control function, the members of the internal auditing and the audit committee are positively linked with the efficiency and effectiveness of the governance processes, internal controls and risk management. Moreover, Abbott et al. (2016) show that the joint presence of competence and independence is a necessary antecedent to effective internal auditing and financial reporting monitoring. More recently, Drogalas et al. (2016) affirm the positive association between corporate governance and audit committee.

According to the above, the third research hypothesis can be developed as follows:

 $H_3$ : Audit Committee Independence positively affects the effectiveness of corporate governance.

#### 3. RESEARCH DESIGN

#### 3.1. Sample and questionnaire

The target population for this study was managers, accountants and internal auditors from Greek corporations that conduct internal audits. The data was collected through the use of a mail survey instrument (questionnaire). A structured questionnaire was used because of its ability to collect high-quality data within the shortest possible time (Gbadago, 2015). Questionnaires were mailed to 235 corporations that are listed on the Athens Stock Exchange.

Respondents were asked to indicate their level of agreement or disagreement with each of the ten statements on a five-point Likert scale. This methodology is extensively used in academic research, because it is relatively easy for respondents to answer, and responses from such a scale are likely to be reliable (Balzan and Baldacchino, 2007). The responses ranged from 1-totally disagree to 5-absolutely agree.

This study used both descriptive and inferential analyses. Descriptive analysis was used to determine the factors relating to internal audit and

corporate governance in Greek organizations, while multiple regression analysis was used to test the hypotheses.

#### 3.2. Variables and model

Four variables are selected to be examined in the present research. "Corporate Governance Effectiveness" was selected as the dependent variable and "Internal Audit Quality", "Internal Audit Senior Management Support", and "Audit Committee Independence" were selected as the independent variables. Multiple regression analysis was performed to estimate the relationship between the above variables. The Ordinary least squares (OLS) regression model was:

$$CGE = a + b_1 IAQ + b_2 SMS + b_3 ACI + e_i$$
 (1)

The variables are defined below:

CGE = Corporate Governance Effectiveness

IAQ = Internal Audit Quality

SMS = Internal Audit Senior Management Support

ACI = Audit Committee Independence

## 4. RESULTS

## 4.1. General Information

General statistics of the respondents, regarding gender, age, education, work experience and position in the company are presented in Table 1.

Table 1. General information

|                  |                  | Frequency | Per cent |
|------------------|------------------|-----------|----------|
| Candan           | Man              | 37        | 57.8     |
| Gender           | Woman            | 27        | 42.2     |
|                  | 25-30            | 3         | 4.7      |
|                  | 31-35            | 20        | 31.3     |
| Age              | 36-40            | 25        | 39.1     |
|                  | 41-45            | 12        | 18.8     |
|                  | > 45             | 4         | 6.3      |
|                  | 0-5              | 23        | 35.9     |
| Marla Farraniana | 6-10             | 25        | 39.1     |
| Work Experience  | 11-15            | 12        | 18.8     |
|                  | > 16             | 4         | 6.3      |
|                  | University       | 25        | 39.1     |
| Education        | Master           | 36        | 56.3     |
|                  | PhD              | 3         | 4.7      |
|                  | Internal Auditor | 30        | 46.9     |
| Position in      | Accountant       | 16        | 25.0     |
| Company          | Manager          | 11        | 17.2     |
|                  | Other            | 7         | 10.9     |

Source: Field Survey, 2016.

As shown in the above Table 1, out of the sixty-four (64) people who completed the questionnaire, thirty-seven (37) are males and twenty-seven (27) are females, while 70% of the respondents are between 31-40 years old. Particular emphasis should be given to the fact that 56% of employees hold a "Master's degree". Finally, the majority of respondents, 66.7% seem to have work experience in positions of responsibility "up to 5 years" and only 33.3% "over five years". Regarding the years of experience, 35.9% have work experience from "0 to 5 years" and 39.1% "from 6 to 10 years". Finally, of the respondents, the largest percentage (46.9%) is internal auditors and also a significant proportion (25%) is accountants.

#### 4.2. Descriptive statistics

Table 2 shows the descriptive statistics for the dependent and the independent variables.

Regarding corporate governance effectiveness, the survey reported that the respondents are of the benefits of good corporate governance for their company. Also, the participants' responses indicate that corporate governance promotes compliance with legal requirements and rules. As far as internal audit quality is concerned, the vast majority of the respondents state that internal audit conforms to the IPPF standards. On the contrary, regarding the role of the internal audit team in evaluating and enhancing the internal control system of the company, a large portion of the respondents was more sceptical.

Moreover, in relation to the senior management support of the internal audit process, the survey reported that internal auditors possess the resources needed to perform their individual responsibilities. However the belief that "the chief audit executive discusses the mission of the internal audit with senior management and the board" is much weaker. Finally, regarding internal audit committee independence, the vast majority of the respondents considers that the audit committee is established with power to oversee the relationship with the external auditor.

Table 2. Descriptive statistics

| Variable description   | 1         | 2    | 3     | 4     | 5     |  |  |  |  |
|--|-----------|------|-------|-------|-------|--|--|--|--|
| Corporate Governance Effectiveness   |           |      |       |       |       |  |  |  |  |
| Employees are aware of the benefits of good corporate governance for their   | 0         | 0    | 16    | 30    | 18    |  |  |  |  |
| company  |           | 0.0% | 25.0% | 46.9% | 28.1% |  |  |  |  |
| Company develops financial statements in conformity with generally           | 0         | 1    | 21    | 13    | 29    |  |  |  |  |
| accepted accounting principles   | 0.0%      | 1.6% | 32.8% | 20.3% | 45.3% |  |  |  |  |
| Company management promotes compliance with legal requirements and           |           | 1    | 25    | 14    | 24    |  |  |  |  |
| rules  | 0.0%      | 1.6% | 39.1% | 21.9% | 37.5% |  |  |  |  |
| Internal Audit Quality   |           |      |       |       |       |  |  |  |  |
| The size of the internal audit department within the company is sufficient   |           | 1    | 15    | 29    | 18    |  |  |  |  |
|  |           | 1.6% | 23.4% | 45.3% | 28.1% |  |  |  |  |
| The internal audit team is able to evaluate and enhance the internal control |           | 1    | 21    | 14    | 28    |  |  |  |  |
| system of the company  |           | 1.6% | 32.8% | 21.9% | 43.8% |  |  |  |  |
| Internal audit conforms to the IPPF standards                                |           | 0    | 0     | 12    | 52    |  |  |  |  |
| internal addit comornis to the irrr standards                                | 0.0%      | 0.0% | 0.0%  | 18.8% | 81.2% |  |  |  |  |
| Internal Audit Senior Managemen  | t Support |      |       |       |       |  |  |  |  |
| The chief audit executive discusses the mission of the internal audit and    |           | 2    | 25    | 15    | 22    |  |  |  |  |
| the mandatory elements of the IPPF with senior management and the board      |           | 3.1% | 39.1% | 23.4% | 34.4% |  |  |  |  |
| The chief audit executive reports to a level within the organization that    |           | 0    | 2     | 22    | 40    |  |  |  |  |
| allows the internal audit activity to fulfil its responsibilities            |           | 0.0% | 3.1%  | 34.4% | 62.5% |  |  |  |  |
| Internal auditors have the resources needed to perform their individual      |           | 0    | 2     | 20    | 42    |  |  |  |  |
| responsibilities   | 0.0%      | 0.0% | 3.1%  | 31.3% | 65.6% |  |  |  |  |
| Audit Committee Independence   |           |      |       |       |       |  |  |  |  |
| Audit Committee members have access to relevant financial information,       |           | 0    | 13    | 22    | 29    |  |  |  |  |
| ensuring the basis for an effective corporate governance framework           |           | 0.0% | 20.3% | 34.4% | 45.3% |  |  |  |  |
| There are no ties between the CEO and audit-committee members                |           | 0    | 15    | 32    | 17    |  |  |  |  |
|  |           | 0.0% | 23.4% | 50.0% | 26.6% |  |  |  |  |
| Audit committee is established with power to oversee the relationship with   |           | 0    | 0     | 15    | 49    |  |  |  |  |
| the external auditor   |           | 0.0% | 0.0%  | 23.4% | 76.6% |  |  |  |  |

Source: Field Survey, 2016.

## 4.3. Regression analysis

Levene's test and Shapiro-Wilk test were undertaken respectively and no problems were identified. Regarding autocorrelation, we conducted the Durbin-Watson's test. Our model presents values near 2, indicating the absence of autocorrelation in residuals. The results of the multiple regression are presented in Table 3.

Table 3. Regression analysis

| Variables | Coeff.                     | Value | S.E. | t      | p-value |
|-----------|----------------------------|-------|------|--------|---------|
| Constant  | $b_o$                      | -,898 | ,576 | -1,558 | ,124    |
| IAQ       | $b_{\scriptscriptstyle I}$ | ,912  | ,107 | 8,483  | ,000    |
| SMS       | $b_{\scriptscriptstyle 2}$ | ,196  | ,081 | 2,427  | ,018    |
| ACI       | $b_{\scriptscriptstyle 3}$ | ,038  | ,096 | ,394   | ,695    |

Source: Field Survey, 2016.

From Table 3, it is indicated that regarding the first hypothesis, the results indicate that there is a positive and significant association between "Corporate Governance Effectiveness" and "Internal Audit Quality" ( $b_1$ =0.912, p=0.000 < .05). Thus,  $H_i$  is strongly supported. Similarly, there is a positive and significant relationship between Governance Effectiveness" and "In "Corporate and "Internal Audit Senior Management Support" (b<sub>2</sub>=0.196, p=0.018), suggesting that  $H_2$  is accepted. Finally, regarding the third hypothesis, which relates to "Audit Committee Independence", the regression analysis shows that there is a positive, but not significant association to "Corporate Governance Effectiveness"  $(b_3=0.038,$ p=0.695). Thus,  $H_3$  is not supported.

Building on the above, we can claim that the factors that have the highest impact on corporate governance effectiveness are those related to the quality of internal audit, which includes the skills of the internal auditors and their ability to improve the internal control system to the international audit standards. Finally, of utmost importance in the support that the senior management offers to internal control department, both in terms of resources needed to perform their duties and in terms of moral support in the process of internal audit itself.

#### 5. CONCLUSION

Because of the constant changes in the corporate environment, it has become extremely important for the internal audit process to stay up-to-date in order to provide assurance to the various corporate stakeholders. Internal audit plays a crucial role in ensuring the success and sustainability of any organization and in providing reliable and unbiased services to the management, the Board of Directors and the audit committee (Ljubisavljevic and Jovanovic, 2011). Along those lines, good corporate governance also enhances a firm's corporate performance.

According to the literature review, corporate governance effectiveness is associated with internal audit quality. Similar to the IPPF standards for internal auditing (IPPF, 2017) and to the finding of Saud and Marchand (2012), our results also show that internal audit quality affects corporate governance. Moreover, regarding the relationship corporate between corporate governance effectiveness and internal audit senior management support, our results are in line with the auditor, the results of this study are in line with Odoyo and Omwono (2014) and Endaya and Hanefah (2016). However, it is worth mentioning that no significant relationship is between governance corporate effectiveness and audit committee independence.

Our study poses a number of limitations which should be kept in mind when interpreting our findings. We have examined a linear relationship between the different internal audit factors and corporate governance. However, it could be possible that some other model, such as a structural equation model could offer a more deep insight into how the variables interact. Moreover, the data collected was necessarily limited in order to restrict the length of the questionnaire and to maximize response rates. Thus, interviews with board members should be comprehensive conducted. enabling a more viewpoint of corporate governance at a corporate level. In conclusion, it is evident that the interaction between corporate governance and internal audit is an area of research in which valuable contribution can be made both by academics and business practitioners.

#### REFERENCES

- Abbott, L. J., Daugherty, B., Parker, S., & Peters, G. F. (2016). Internal audit quality and financial reporting quality: The joint importance of independence and competence. Journal of Accounting Research, 54(1), 3-40. https://doi.org/10.1111/1475-679X.12099
- Ashurov, Z. (2014). The corporate governance in Uzbekistan: A special focus on the board's supervisory role compared with German practice. http://doi.org/10.22495/cbv10i3art6 Corporate Board: role, duties and composition, 10(3), 77-96.
- Baker, H. K., & Anderson, R. (2010). Corporate governance: A synthesis of theory, research and practice. Hoboken, New Jersey: John Wiley & Sons Inc. 3.
- Balzan, L., & Baldacchino, P.J. (2007). Benchmarking in Maltese internal audit units. *Benchmarking: An International Journal*, 14(6), 750-767. https://doi.org/10.1108/14635770710834527
- Bertin E. (2007). Audit interne: Enjeux et pratiques a l'international. Paris, France: Eyrolles Editions d'Organisations.
- Braendle, U. C., Omidvar, A., & Tehraninasr, A. (2013). On the specifics of corporate governance in Iran and the Middle East. Corporate Ownership and Control, 10(3), 49-62. https://doi.org/10.22495/cocv10i3art5
- Brown, J. R., & Casey, L. L. (2016). Corporate governance: Gates and materials (2nd ed.). Durham, North Carolina: Carolina Academic Press.
- Cohen, A., & Sayag, G. (2010). The effectiveness of internal auditing: An empirical examination of its determinants in Israeli organizations. *Australian* https://doi.org/10.1111/j.1835-2561.2010.00092.x Accounting Review, 20(3), 296-307.
- Coram, P., Ferguson, C., & Moroney, R. (2008). Internal audit, alternative internal audit structures and the level of misappropriation of assets fraud. Accounting and Finance, 48(4), 543-559. https://doi.org/10.1111/j.1467-629X.2007.00247.x
- 10. Drogalas, G., Alampourtsidis, S., & Koutoupis, A. (2014). Value-added approach of internal audit in the Hellenic police. Corporate Ownership and Control, 11(4-7), 692-698. https://doi.org/10.22495/cocv11i4c7p11
- 11. Drogalas, G., Arampatzis, K., & Anagnostopoulou, E. (2016). The relationship between corporate governance, internal audit and audit committee: Empirical evidence from Greece. Corporate Ownership and Control, 14(1-4), 569-577. https://doi.org/10.22495/cocv14i1c4art3
- 12. Endaya, K. A., & Hanefah, M. M. (2016). Internal auditor characteristics, internal audit effectiveness, and moderating effect of senior management. *Journal of Economic and Administrative Sciences*, 32(2), 160-176. https://doi.org/10.1108/JEAS-07-2015-0023
- Eulerich, M., Velte, P., & Theis, J. (2015). Internal auditors' contribution to good corporate governance. An empirical analysis for the one-tier governance system with a focus on the relationship between internal audit audit Corporate ownership Control, 13(1-1), and committee. and http://dx.doi.org/10.22495/cocv13i1c1p1
- Gamal, A. (2015). The evolving role of internal audit in corporate governance. Retrieved from the World Wide Web: http://www.internalauditor.me/article/the-evolving-role-of-internal-audit-in-corporate-governance/
- Gbadago, F. Y., & Awunyo-Vitor, D. (2015). Gift tax compliance in Ghana: Evidence from Kumasi Metropolis.
- Journal of Accounting and Taxation, 7(2), 29-37. https://doi.org/10.5897/JAT2014.0160

  16. Haldar, A., & Nageswara Rao, S. V. D. (2014). Corporate governance in India. Corporate Ownership & Control, 12(1-2), 287-297. http://doi.org/10.22495/cocv12i1c2p6
- 17. International professional practices framework (IPPF). (2017). International standards for the professional practice of internal auditing (standards). Retrieved from the World Wide Web: https://na.theiia.org/standards-
- guidance/Public%20Documents/IPPF-Standards-2017.pdf Karagiorgos, Th., Drogalas, G., Gotzamanis, E., & Tampakoudis, I. (2010). Internal auditing as an effective tool for corporate governance. Journal of Business Management, 2(1), 15-24.
- Ljubisavljevic, S., & Jovanovic, D. (2011). Empirical research on the internal audit position of companies in
- Serbia. *Economic Annals*, 56(191), 123-141. https://doi.org/10.2298/EKA1191123L

  20. Odoyo, F. S., & Omwono, G. A. (2014). The role of internal audit in enhancing corporate governance for companies listed at Nairobi stock exchange. *Research Journal of Finance and Accounting*, 5(3), 56-61. Retrieved
- Prawitt, D. F., Smith, J. L., & Wood, D. A. (2009). Internal audit quality and earnings management. *The Accounting Review, 84(4),* 1255-1280. https://doi.org/10.2308/accr.2009.84.4.1255 21.
- Sarens, G., & De Beelde, I. (2006). The relationship between internal audit and senior management: A qualitative analysis of expectations and perceptions. *International Journal of Auditing*, 10(3), 219-241. https://doi.org/10.1111/j.1099-1123.2006.00351.x
- 23. Sarens, G., De Beelde, I., & Everaert, P. (2009). Internal audit: A comfort provider to the audit committee. The British Accounting Review, 41(2), 90-106. https://doi.org/10.1016/j.bar.2009.02.002
- 24. Saud, S., & Marchand, N. (2012). Contribution of internal audit in the achievement of corporate goals. A case of Sweden and Pakistan (Business Administration Master Thesis, Karlstad Business School, Sweden). Retrieved from the World Wide Web: http://www.diva-portal.org/smash/get/diva2:537276/fulltext01
- 25. Soliman, M. M., Ragab, A. A., & Eldin, M. B. (2014). Corporate governance structure and firm' financial performance: Evidences from Egypt. Corporate Board: Role, Duties and Composition, 10(1), 49-59. https://doi.org/10.22495/cbv10i1art4
- 26. Van Peursem, K. A. (2004). Internal auditors' role and authority: New Zealand evidence. *Managerial Auditing Journal*, 19(3), 378-393. https://doi.org/10.1108/02686900410524382