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## Factors Affecting the Quality of Financial Reporting after the Adoption of the New Greek Accounting Standards

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### **Abstract:**

**Purpose:** The quality of financial reporting represents a major challenge for modern firms, as well as for all stakeholders. It is indicative that international standards are developed in order to ensure the relevance, comparability, understandability, faithful representation and timeliness of official financial statements. Under this framework, the present research investigates the factors which affect the quality of financial reporting and more precisely, firm size, audit firm size, geographical location, leverage, liquidity and profitability.

**Design/methodology/approach:** The quantitative approach was selected and regression analyses were used to provide answers to the research questions. Quality was chosen as the dependent variable, measured using the results of a previous study. First, a regression model was developed in order to reveal correlations between the variables. Then, each independent variable was correlated with the dependent variable (quality) and different regression models were developed for each correlation.

**Findings:** Firm size, audit firm size, geographical distribution, and more precisely the location of the headquarters are positively correlated with the quality of financial reporting. Profitability is negatively correlated with the quality of financial reporting, while leverage is not correlated with the quality of financial reporting. Besides, the quality of financial reporting depends on the interaction of all the variables and the initial model interprets this relationship in a satisfactory way.

**Originality/value:** The originality of the present research lays in the fact that there are few researches which investigate the factors that affect the quality of financial reporting after the adoption of the New Greek Accounting Standards, while the use of the variable “geographical distribution” (distinction among the firms that are located in Attica and in the rest of the country) is novel in existing literature.

**Keywords:** Quality of financial reporting, leverage, profitability, liquidity, firm size, audit firm size.

**JEL codes:** M41, M42.

**Paper Type:** A research study.

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## **1. Introduction**

The quality of financial reporting is an issue which preoccupies authorities as well as financial entities in order to ensure relevance, comparability, understandability, faithful representation and timeliness. The new Greek Financial Standards were developed under this framework and represent a radical change which was needed in order for Greek companies to comply with European and global standards (National Printing Office, 2014). Nevertheless, the quality of financial reporting is also affected by other factors, firm-specific or audit related. The present study uses the results of the study of Balios *et al.* (2021), concerning the quality of financial reporting of Greek firms with the use of the New Greek Accounting Standards, and investigates the impact of firm size, audit firm size, geographical location, profitability, leverage and liquidity on the quality of financial reporting.

### **1.1 Research Rational, Research Aim and Research Questions**

According to IASB (2010), the main purpose of financial reporting is the provision of high quality information to stakeholders in order to take rational decisions. The modern business environment is particularly complex and uncertainty and vulnerability dominate. Besides, during the last decades, major scandals were revealed, making the need for transparency and quality even greater. As a consequence, the investigation of the factors which affect the quality of financial reporting is important and can be used as reference for decision makers as well as for official authorities.

The aim of the present research is the investigation of the relationship between the quality of financial reporting and firm specific characteristics, as well as external auditing. In order to fulfill this aim, the following research questions were developed:

- Is firm size an influential factor as far as the quality of financial reporting is concerned?
- Is the size of the audit firm an influential factor as far as the quality of financial reporting is concerned?
- Is geographical location (location of headquarters) an influential factor as far as the quality of financial reporting is concerned?
- Is firm leverage an influential factor as far as the quality of financial reporting is concerned?
- Is firm's profitability an influential factor as far as the quality of financial reporting is concerned?
- Is firm liquidity an influential factor as far as the quality of financial reporting is concerned?

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Below, literature review follows, in order to set the framework of the research and justify the selection of the research variables. Then, research design is presented. The next section includes research results and, finally, conclusions are made.

## 2. Literature Review

The investigation of the variables which affect the quality of financial reporting has been the aim of several studies. First, as far as the firm size is concerned, researchers argue that usually bigger companies have robust internal processes and systems (like IT systems) which enable better monitoring of financial reporting. Also, they can cooperate with the Big4 and this ameliorates the quality of financial reporting (Dechow and Ge, 2006). On the other hand, there are researchers who do not find statistically significant correlation between firm size and the quality of financial reporting (Waweru and Riro, 2013).

Profitability is also a variable which is related to the quality of financial reporting. Profitable firms may wish to improve their reputation and they include a lot of information concerning profitability in their financial reports (Alsaeed, 2006). On the other hand, firms may use earning management techniques in order to present positive results and this tactic may reduce the quality of financial reporting (Haniffa and Cooke, 2002). Last, there are researchers who did not find any statistically significant correlation between profitability and the quality of financial reporting (Yang and Krishnan, 2005).

The size of the audit firm also represents a factor which, according to researchers, may affect the quality of financial reporting. Usually, audit firms are classified in three different categories: The Big4, the rest big audit firms and the small ones. Researchers argue that the bigger the audit firm, the higher the convergence with the requirements of the International Standards (Schauer, 2002). Also, in the case of the Big4 or other big audit firms, mistakes during the audit are minimized and audited firms do not use earning management techniques at a great extent (Geiger and Rama, 2006). Besides, big audit firms have the required technical infrastructure, the adequately trained employees as well as the reputation and, as a consequence, it is more probable that they wish to remain reliable (Hussein and Hanefah, 2013).

Firms' leverage is another variable which is correlated with the quality of financial reporting. According to existing literature, leverage is correlated positively (Shehu, 2013; Mahboub, 2017), but also negatively (Akhgar and Karami, 2014) with the quality of financial reporting. Besides, there are studies which reveal no statistically significant correlation between the two variables (Adebayo and Adebisi, 2016; Olowokure *et al.*, 2016). As a consequence, it is interesting to investigate the impact of leverage on the quality of financial reporting in the framework of the present study. The firm size and profitability were also included in the variables used by Soyemi and Olawale (2019). According to their research results, firm size and profitability are positively correlated with the quality of financial reporting.

Lestari and Yadiati (2014), included firm size in their research and found no statistically significant correlation between firm size and the quality of financial reporting. Musa and Saidu (2017), investigated the impact of the size of the audit firm on the quality of financial reporting and found a positive, statistically significant relationship. Musa *et al.* (2019), found that leverage, profitability and liquidity are positively but not significantly correlated with the quality of financial reporting.

Last, geographical distribution represents a variable used in the research concerning the quality of financial reporting. In particular, researchers have studied this variable in the regard of geographical distribution concerning different countries (Kobbi-Fakhfakh, 2017), as well as concerning urban and rural areas within the same country (Baik *et al.*, 2010). The present research focuses on the later approach. Existing research reveals that firms with their headquarters in urban areas enjoy advantages concerning the flow of information (Coval and Moskowitz, 2001). Also, they have better relationships with stakeholders and are near decision making centers. The entire above lead to the reduction of information asymmetries (Hau, 2001). These companies can be more effective in handling their processes and procedures and do not usually use earnings management techniques (Loughran, 2007). As a consequence, the quality of financial reporting is better in the case of firms that operate in urban areas (Urcan, 2007).

### **3. Research Design**

#### **3.1 Research Methodology**

The aim of the present study is the identification of statistically important relationship among the quality of financial reporting of Greek firms and firm-specific characteristics such as their size, the size of the audit firm, leverage, profitability, liquidity and geographical distribution. The quantitative approach was selected and regression analyses were used to provide answers to the research questions.

Quality was chosen as the dependent variable, measured using the results of the study of Balios *et al.* (2021). Firm size, the size of the audit firm, leverage, profitability, liquidity and geographical distribution were used as the independent variable. A regression model was developed in order to reveal correlations between the variables. Then, each independent variable was correlated with the dependent variable (quality) and different regression models were developed for each correlation.

#### **3.2 Research Variables**

The research variables include the following:

*Firm size:*

Firm size has already been used as a variable in previous research concerning the investigation of the impact of the adoption of New Accounting Standards on the quality of financial reporting. Waweru and Riro (2013), calculated the size of the firm by using the natural logarithm of total assets at the end of the accounting period. Dechow and Ge (2006), used a different way to calculate firm size in their model. They used the variable “relative size” which was calculated by dividing the logarithm of each firm market value with the total size of the NYSE and AMEX financial markets. Geiger and Rama (2006), used the natural logarithm of sales as a measure of firm size.

For the purposes of the present study, firm size was determined according to each firm’s turnover. This choice was partly based on the classification set by the Law 4308/2014 (National Printing Office, 2014). More precisely, firm size was determined as follows:

- Small entity, when turnover was between 1,000,000 and 8,000,000 euro. In this case, the variable was attached the value “1”.
- Medium entity, when turnover was between 8,000,001 and 40,000,000 euro. In this case, the variable was attached the value “2”.
- Large entity, when turnover was over 40,000,001 euro. In this case, the variable was attached the value “3”.

*Size of the audit firm:*

The size of the audit firm was also selected as a variable which may influence the quality of financial reporting. Usually, researchers, in order to determine the size of the audit firm, divide them in two major categories: “Big4” and “non-Big4” (Geiger and Rama, 2006; Hussein and Hanefah, 2013).

In Greece, there are 30 audit firms – the Big 4 included. The classification was realized using the number of Chartered Accountants and not by using the “Big4” and “non-Big4” classification. This classification was decided in order to obtain better differentiation and better understanding of the impact of audit firm size on the quality of financial reporting. The classification was realized as follows:

- No external auditing was realized by independent Chartered Accountants, and the variable was attached the value “0”.
- Very small / family owned audit firms (these audit firms employ less than 7 Chartered Accountants), and the variable was attached the value “1”.
- Small audit firms (these audit firms employ 7 - 14 Chartered Accountants) and the variable was attached the value “2”.
- Medium audit firms (these audit firms employ 15 - 40 Chartered Accountants) and the variable was attached the value “3”.
- Big audit firms (these audit firms employ more than 40 Chartered Accountants) and the variable was attached the value “4”.

- “Big4” audit firms (KPMG, PwC, EY, Deloitte) and the variable was attached the value “5”.

*Geographical Distribution:*

Geographical distribution, and more precisely the location of the headquarters, has been included as a variable in previous research concerning the quality of financial reporting (Baik *et al.*, 2010; Coval and Moskowitz, 2001; Urcan, 2007). For the purposes of the present study, firms were divided according to whether their headquarters were in “Attica” or “Outside Attica”. This classification was chosen because in Greece, there are significant differences between “Attica” and the rest of the country in terms of development, quality of employees, audit firm operation and other variables which affect corporate operation. As a consequence, the variable geographical distribution was attached the following values:

- For the firm with their headquarters in Attica the value was “1”.
- For the firms with their headquarters outside Attica the value was “0”.

*Leverage:*

Leverage is a variable which, according to previous research, is related to the quality of financial reporting. In fact, there are contradicting results concerning the nature of this relationship. Usually, leverage is calculated using the Debt Ratio (Total Debt / Total Assets) (Shehu, 2013). Also, Adebayo and Adebisi (2016), used the Ratio of Long-term Debt / Total Assets. For the purposes of the present study, leverage is calculated using the ratio of Total debt / Total equity, according to the research of Olowokure *et al.* (2016).

*Profitability:*

Profitability is widely related to the quality of financial reporting mainly due to the fact that it represents a major factor in the decision making process of investors and other stakeholders. Existing literature refers to several ways of calculating profitability. Galani *et al.* (2011) and Haniffa and Cooke (2002), used the ratio of Net profit / Equity. Adebayo and Adebisi (2016), used the ratio “Earnings per Share”. In the present study, profitability is calculated using the ratio of Operational Profit Margin (net income before taxes / Turnover).

*Liquidity:*

Liquidity also represents a variable which is related with the quality of financial reporting, according to existing research. In most cases the Current Ratio is used to calculate liquidity (Hamidzadeh and Zeinali, 2015; Alsaed 2006), while Acid ration is also preferred by researchers (Abdelsalam and Weetman, 2007). For the purposes of the present study the Current Ratio is used (Current Assets / Current Liabilities)

*Quality:*

Quality of financial reporting was measured using the Nijmegen Centre for Economics (NiCE) Index. This index included 33 items, according to the IASB and

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IFRS framework, which refer to the following fundamental and enhancing quality characteristics set by IASB (IASB, 2010):

- Relevance, which refers to the capability of financial information to make a difference in decision making of stakeholders (13 items).
- Faithful representation, meaning “complete, neutral and free from error” (7 items).
- Comparability, which allows users to compare the information provided by an entity with this provided by other entities, or with the information concerning another financial period of the same entity (6 items).
- Understandability, which requires the clear and concise presentation of financial information (6 items).
- Timeliness, which means “having information available to decision-makers in time to be capable of influencing their decisions” (1 item).

Balios *et al.* (2021), studied the financial reports of 123 Greek companies for the years 2014 (before the implementation of the new Standards) and 2016 (after the implementation of the new Standards). The results that refer to the year 2016 were used for the purposes of the present research. The Index, along with ratings, as well as the descriptive statistics (minimum, maximum, mean score) for each item are provided in appendix. The mean score was used in the regression model.

### 3.3 The Sample

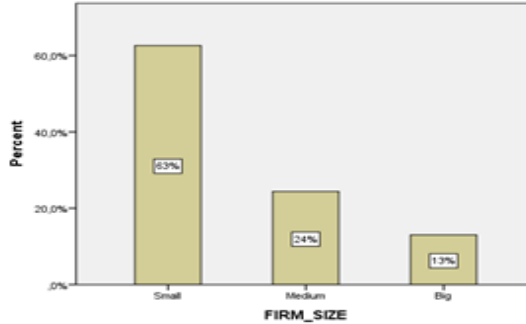
In order to fulfil the aim of the study, a sample of 123 commercial, industrial and services' Greek companies was used. In fact, it was the same sample used by Balios *et al.* (2021). The sample was selected as follows. First, the authors used the ICAP database, selected the companies which use the new Greek Accounting Standards (those using IFRS were excluded) and divided them according to their location (Attica – outside Attica) and their size (Small, Medium, Large). Then, a sample of 12% of companies included in each different category was randomly selected. The population was 1014 enterprises and the sample consists of 123 among them. The stratification and selection process is described in the Appendix.

## 4. Research Results and Discussion

First, quantitative and descriptive data for the variables are presented. As far as the variable “firm size” is concerned, 63% of the firms are “Small”, 24% of the firms are “Medium” and 13% of the firms belong to the “Big” ones. Next, the results for the variable “audit firm size” reveal that 29% of the firms are not audited by authorized external auditors. 24% of the firms are audited by “Very Small / Family” audit firms, 21% of the sample uses “Big” audit firms for the external audit, while 11% of the firms are audited by one of the “Big4” and another 11% are audited by “Medium” auditing firms. Last, 5% among the firms of the sample co-operate with “Small” audit firms. Last, the geographical distribution of the sample revealed that 55% of

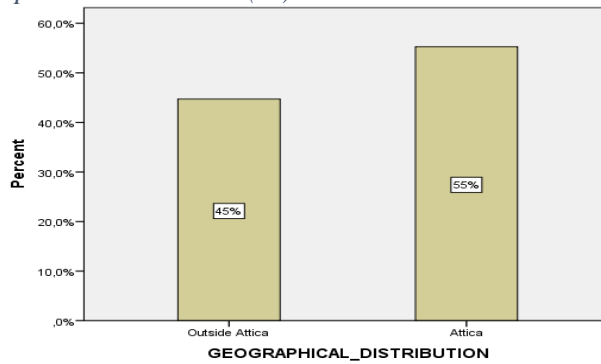
the firms have their headquarters in the region of Attica, while the rest 45% have their headquarters outside Attica. All these results are depicted below (Figures 1-3).

Figure 1. Firm size (%)



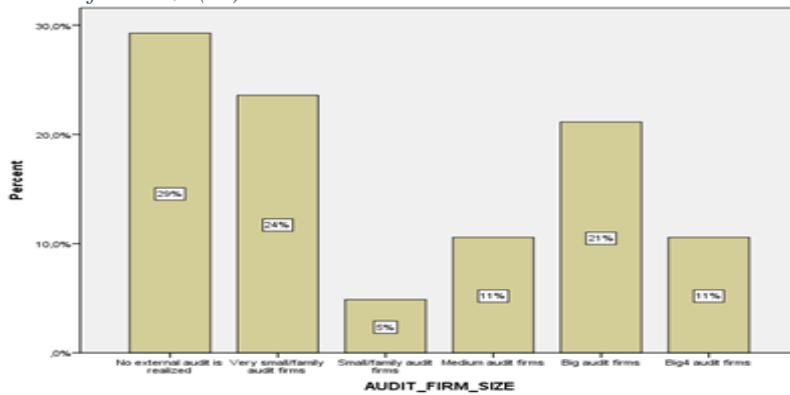
Source: Own study.

Figure 2. Geographical distribution (%)



Source: Own study.

Figure 3. Audit firm size (%)



Source: Own study.



Below, the descriptive statistics of the rest of the independent variables (leverage, liquidity, profitability) are depicted. As far as the leverage ratio is concerned, the mean value was 140.78%. This is indicative of the fact that companies rely on foreign debt in order to finance their activities. In addition, the mean score for profitability was 3.82%, meaning that, in average, net profits represent the 3.82% of firms' turnover. Last, liquidity, which is a measure of the ability of the company to cover their short-term liabilities, was found to have a mean score of 2.6, which is fairly satisfying. It is worth to mention that both liquidity and leverage have high standard deviation values, meaning that there are significant differences of the ratios among the firms. Results are depicted below (Tables 1-22).

**Table 1. Descriptive Statistics of independent variables**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
LEVERAGE	123	-0.15	36.56	1.41	4.35
PROFITABILITY	123	-0.92	0.56	0.04	0.17
LIQUIDITY	123	0.27	79.35	2.60	7.20
Valid (listwise)	N 123				

Source: Own study.

*Regression analyses:*

After having presented the quantitative and descriptive results for the dependent variables, below regression analyses follow. First, a model was developed containing all the variables under investigation. The model was the following:

$$\text{QUALITY} = \alpha_0 + \alpha_1 \text{FIRM\_SIZE} + \alpha_2 \text{AUDIT\_FIRM\_SIZE} + \alpha_3 \text{GEOGRAPHICAL\_LOCATION} + \alpha_4 \text{LEVERAGE} + \alpha_5 \text{PROFITABILITY} + \alpha_6 \text{LIQUIDITY} + \varepsilon_i$$

First, as shown below, the model interprets 69.9% of the variance in quality. This percentage is satisfying.

**Table 2. Model Summary, Regression model containing all the independent variables**

Model Summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0,836 <sup>a</sup>	0,699	0,683		0,24503
Predictors: (Constant), GEOGRAPHICAL_LOCATION, LEVERAGE, LIQUIDITY, FIRM_SIZE, PROFITABILITY, AUDIT_FIRM_SIZE					

Source: Own study.

ANOVA analysis reveals that the model is significant at 95% level, as presented below.

**Table 3.** ANOVA, Regression model containing all the independent variables

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16,170	6	2,695	44,888	0,000 <sup>b</sup>
	Residual	6,964	116	0,060		
	Total	23,134	122			

a. Dependent Variable: QUALITY  
b. Predictors: (Constant), GEOGRAPHICAL\_LOCATION, LEVERAGE, LIQUIDITY, FIRM\_SIZE, PROFITABILITY, AUDIT\_FIRM\_SIZE

*Source: Own study.*

According to results, the following correlations were revealed:

- The variable FIRM\_SIZE is positively and significantly correlated (at the level of 95%) with the variable QUALITY (sig. 0.000).
- The variable GEOGRAPHICAL\_LOCATION is positively and significantly correlated (at the level of 95%) with the variable QUALITY (sig. 0.002).
- The variable PROFITABILITY is negatively and significantly correlated (at the level of 95%) with the variable QUALITY (sig. 0.028).
- The variable LEVERAGE is positively but not significantly correlated with the variable QUALITY (sig. 0.319).
- The variable LIQUIDITY is positively but not significantly correlated with the variable QUALITY (sig. 0.936).

Results are shown below.

**Table 4.** Coefficients, Regression model containing all the independent variables

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.093	0.057		36.971	0.000
	FIRM_SIZE	0.204	0.034	0.336	6.095	0.000
	AUDIT_FIRM_SIZ	0.137	0.013	0.575	10.304	0.000
	E					
	LEVERAGE	0.005	0.005	0.052	1.001	0.319
	PROFITABILITY	-0.304	0.137	-0.116	-2.222	0.028
	LIQUIDITY	0.000	0.003	0.004	.080	0.936
	GEOGRAPHICAL DISTRIBUTION	0.144	0.046	0.165	3.148	0.002

a. Dependent Variable: QUALITY

*Source: Own study.*

The regression equation is the following:

$$\text{QUALITY} = 2.093 + 0.204 \text{ FIRM\_SIZE} + 0.144 \text{ GEOGRAPHICAL\_DISTRIBUTION} + 0.137 \text{ AUDIT\_FIRM\_SIZE} - 0.304 \text{ PROFITABILITY} + \varepsilon_i$$

Then regression analyses were realized, in order to correlate each one of the independent variables with the dependent variable. These analyses aim at revealing whether the independent variables affect quality of financial reporting in a different way, when examined separately.

*Firm Size:*

First, the variable FIRM\_SIZE was correlated with the variable QUALITY. The model interprets 33.2% of the variance of the dependent variable (QUALITY). R Square results are presented below.

**Table 5.** Model Summary, regression model with FIRM\_SIZE as the independent variable

Model Summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.576 <sup>a</sup>	0.332	0.326		0.357

a. Predictors: (Constant), FIRM\_SIZE

*Source:* Own study.

Nevertheless, ANOVA Analysis revealed that the model is statistically significant at the 95% level, as shown below.

**Table 6.** ANOVA, regression model with FIRM\_SIZE as the independent variable

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.677	1	7.677	60.096	0.000 <sup>b</sup>
	Residual	15.457	121	0.128		
	Total	23.134	122			

a. Dependent Variable: QUALITY  
 b. Predictors: (Constant), FIRM\_SIZE

*Source:* Own study.

Last, the regression analysis results show that there is a statistically significant (at 95% level). positive relationship between quality and firm size.

**Table 7.** *Coefficients, regression model with FIRM\_SIZE as the independent variable*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.228	0.0758		29.654	0.000
	FIRM_SIZE	0.350	0.0450	0.576	7.752	0.000

a. QUALITY

*Source: Own study.*

As a consequence, the regression equation is the following:

$$\mathbf{QUALITY = 2.228 + 0.35 FIRM\_SIZE}$$

*Audit Firm Size:*

The next relationship under investigation is that between quality of financial reporting and audit firm size. Results are depicted below. First, the model interprets 55.3% of the variance of the dependent variable, as shown on the table that follows.

**Table 8.** *Model Summary, regression model with AUDIT\_FIRM\_SIZE as the independent variable*

<b>Model Summary</b>						
Model	R	R Squared	Adjusted Squared	R	Std. Error of the Estimate	
1	0.744 <sup>a</sup>	0.553	0.549		0.292	

a. Predictors: (Constant), AUDIT\_FIRM\_SIZE

*Source: Own study.*

ANOVA analysis reveals that the regression model is statistically significant (at 95% level), as shown below.

**Table 9.** *ANOVA, regression model with AUDIT\_FIRM\_SIZE as the independent variable*

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.794	1	12.794	149.712	0.000 <sup>b</sup>
	Residual	10.340	121	0.085		
	Total	23.134	122			

a. Dependent Variable: QUALITY  
b. Predictors: (Constant), AUDIT\_FIRM\_SIZE

*Source: Own study.*

Last, regression analysis results show that audit firm size is positively and significantly (at 95% significance level) correlated with the quality of financial reporting.

**Table 10.** Coefficients, regression model with *AUDIT\_FIRM\_SIZE* as the independent variable

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.395	0.039		60.727	0.000
AUDIT_FIRM_SIZE	0.177	0.014	0.744	12.236	0.000

a. Dependent Variable: QUALITY

Source: Own study.

Consequently, the regression equation which expresses the relationship between quality of financial reporting and audit firm size is the following:

$$QUALITY = 2.395 + 0.177 AUDIT\_FIRM\_SIZE$$

*Geographical distribution:*

The investigation of the relationship between quality of financial reporting and geographical distribution (headquarters of the firm) revealed that the regression model which was developed interprets a very low percentage (9.2%) of the variance of the dependent variable.

**Table 11.** Model Summary, regression model with *GEOGRAPHICAL\_DISTRIBUTION* as the independent variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.304 <sup>a</sup>	0.092	0.085	0.417

a. Predictors: (Constant), GEOGRAPHICAL\_DISTRIBUTION

Source: Own study.

ANOVA analysis, on the other hand, revealed that the model is statistically significant (at 95% significance level), as shown below.

**Table 12.** ANOVA, regression model with *GEOGRAPHICAL\_DISTRIBUTION* as the independent variable

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.132	1	2.132	12.283	0.001 <sup>b</sup>
	Residual	21.002	121	0.174		

Total	23.134	122
a. Dependent Variable: QUALITY		
b. Predictors: (Constant), GEOGRAPHICAL_DISTRIBUTION		

*Source: Own study.*

The regression analysis which was developed in order to correlate quality with geographical distribution is depicted on the following Table 13.

**Table 13.** *Coefficients, regression model with GEOGRAPHICAL\_DISTRIBUTION as the independent variable*

<b>Coefficients<sup>a</sup></b>					
Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
1 (Constant)	2.608	0.056		46.416	0.000
GEOGRAPHICAL_DISTRIBUTION	0.265	0.076	0.304	3.505	0.001

a. Dependent Variable: QUALITY

*Source: Own study.*

The regression equation which demonstrates the positive and statistically significant relationship between quality and geographical distribution is the following:

<b><math>QUALITY = 2.608 + 0.265 \text{ GEOGRAPHICAL\_DISTRIBUTION}</math></b>
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*Profitability:*

The analysis continues with the correlation of the variables quality and profitability. The model that was developed interprets only 3% of the variance of the dependent variable, as shown below.

**Table 14.** *Model Summary, regression model with PROFITABILITY as the independent variable*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.173 <sup>a</sup>	0.030	0.022	0.431

a. Predictors: (Constant), PROFITABILITY

*Source: Own study.*

In addition, ANOVA analysis reveals that the model is statistically significant at 90% significance level.

**Table 15.** *ANOVA, regression model with PROFITABILITY as the independent variable*

<b>ANOVA<sup>a</sup></b>					
Model	Sum of Squares	df	Mean	F	Sig.

				Square		
1	Regression	0.693	1	0.693	3.735	0.056 <sup>b</sup>
	Residual	22.442	121	0.185		
	Total	23.134	122			
a. Dependent Variable: QUALITY						
b. Predictors: (Constant), PROFITABILITY						

*Source: Own study.*

The regression analysis also revealed that the independent variable “profitability” is negatively and significantly correlated with the dependent variable “quality” at 90% significance level, as shown below.

**Table 16.** Coefficients, regression model with PROFITABILITY as the independent variable

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.771	0.040		69.545	0.000
PROFITABILITY	-0.452	0.234	-0.173	-1.933	0.056

a. Dependent Variable: QUALITY

*Source: Own study.*

As a consequence, the regression equation is the following:

$$\text{QUALITY} = 2,771 - 0,452 \text{ PROFITABILITY}$$

#### Liquidity:

Liquidity is the next independent variable which was correlated with quality of financial reporting. First, the model interprets only 2% of the variance of the dependent variable.

**Table 17.** Model Summary, regression model with LIQUIDITY as the independent variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.046 <sup>a</sup>	0.002	-0.006	0.437

a. Predictors: (Constant), LIQUIDITY

*Source: Own study.*

ANOVA analysis revealed that the regression model is not statistically important, since significance was found to be 0.616.

**Table 18.** ANOVA, regression model with LIQUIDITY as the independent variable

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.048	1	0.048	0.253	0.616 <sup>b</sup>

Residual	23.086	121	0.191
Total	23.134	122	
a. Dependent Variable: QUALITY			
b. Predictors: (Constant), LIQUIDITY			

*Source: Own study.*

As a consequence, liquidity is not correlated in a statistically significant way with the quality of financial reporting, something that is demonstrated below.

**Table 19.** *Coefficients, regression model with LIQUIDITY as the independent variable*

Coefficients <sup>a</sup>		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	2.761	0.042		65.916	0.000
	LIQUIDITY	-0.003	0.234	-0.046	-0.503	0.616
a. Dependent Variable: QUALITY						

*Source: Own study.*

*Leverage:*

Last, the relationship between quality of financial reporting and leverage of the firms was investigated. Results show, first of all, that the model interprets only 2.1% of the variance of the dependent variable.

**Table 20.** *Model Summary, regression model with LEVERAGE as the independent variable*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,146 <sup>a</sup>	0,021	0,013	0,43259
a. Predictors: (Constant), LEVERAGE				

*Source: Own study.*

ANOVA analysis revealed that the regression model is marginally significant, at 90% significance level, as shown below.

**Table 21.** *ANOVA, regression model with LEVERAGE as the independent variable*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.491	1	0.491	2.622	0.108 <sup>b</sup>
	Residual	22.644	121	0.187		
	Total	23.134	122			
a. Dependent Variable: QUALITY						
b. Predictors: (Constant), LEVERAGE						

*Source: Own study.*



According to results, the independent variable “leverage” is positively and significantly correlated, at 90% significance level, with the dependent variable “quality”.

**Table 22.** *Coefficients, regression model with LEVERAGE as the independent variable*

Coefficients <sup>a</sup>		Unstandardized		Standardized	t	Sig.
Model		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.733	0.041		66.649	0.000
	LEVERAGE	0.015	0.009	0.146	1.619	0.108

a. Dependent Variable, QUALITY

*Source:* Own study.

As a consequence, the regression equation is the following:

$$\text{QUALITY} = 2.733 + 0.015 \text{ LEVERAGE}$$

## 5. Conclusions

The analysis that proceeded presents interesting results which are listed below. First, as far as the research questions are concerned, answers based on the regression model which contained all the independent variables follow:

- Firm size is positively correlated with the quality of financial reporting and these results are in accordance with previous studies' results (Dechow and Ge, 2006; Soyemi and Olawale, 2019; Waweru and Riro, 2013; Lestari and Yadiati, 2014).
- Audit firm size is positively correlated with the quality of financial reporting and these results are in accordance with the results of (Schauer, 2002; Geiger and Rama, 2006; Hussein and Hanefah, 2013; Musa and Saidu, 2017).

Geographical distribution, and more precisely the location of the headquarters is positively correlated with the quality of financial reporting and these results are in accordance with the result of previous studies (Baik *et al.*, 2010; Coval and Moskowitz, 2001; Urcan, 2007; Hau, 2001).

- Leverage is not correlated with the quality of financial reporting, which is in accordance with the results of the studies of Olowokure *et al.* (2016) and Adebayo and Adebisi (2016). On the other hand, Akhgar and Karami (2014) found a negative correlation between the two variables while Musa *et al.* (2019), Mahboub (2017), and Shehu (2013) found a positive one.

- Profitability is negatively correlated with the quality of financial reporting. These results are in accordance with those of Alsaeed (2006), but are the opposite of those found in several researches (Haniffa and Cooke, 2002; Soyemi and Olawale, 2019; Musa *et al.*, 2019; Yang and Krishnan, 2005).
- Liquidity is not correlated in a statistically significant way with the quality of financial reporting. These results are not in accordance with Musa *et al.* (2019).

Then, each independent variable was correlated separately with the dependent variable. According to the analysis that proceeded, each variable interprets a very small percentage of the variance of the dependent variable. In other words, this means that the quality of financial reporting depends on the interaction of all the variables and the initial model interprets this relationship in a satisfactory way.

The present research is subject to limitations which mainly refer to the study period, as well as the sample size. Indeed, it is recommended that future researchers include more financial periods, as well as more firms in their sample. Besides, variables such as the type of the audit report, the management style or the use of fair value method instead of cost method.

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**APPENDICES:**

***A. The NiCE index, adjusted to the Greek Accounting Standards***

R1. To what extent does the company use fair value instead of historical cost?	1 = Only historical cost 2 = Mostly historical cost 3 = Balance fair value/historical cost 4 = Mostly fair value 5 = Only fair value
R2. To what extent does the presence of non-financial information in terms of business opportunities and risks complement the financial information?	1 = No non-financial information 2 = Limited non-financial information, not very useful for forming expectations 3 = Sufficient useful non-financial information 4 = Relatively much useful non-financial information, helpful for developing expectations 5 = Very extensive non-financial information presents additional information which helps developing expectations
R3. To what extent does the risk section provide good insights into the risk profile of the company?	1 = No insights into risk profile 2 = Limited insights into risk profile 3 = Sufficient insights into risk profile 4 = Relatively much insights into risk profile 5 = Very extensive insights into risk profile
R4. To what extent does the annual report contain forward-looking information?	1 = No forward-looking information 2 = Limited forward-looking information 3 = Sufficient forward-looking information 4 = Relatively much forward-looking information 5 = Very extensive forward-looking information
R5. To what extent does the annual report contain information on CSR?	1 = No information on CSR 2 = Limited information on CSR 3 = Sufficient information on CSR 4 = Very much information on CSR 5 = Very extensive information on CSR
R6. To what extent does the annual report contain a proper disclosure of the extraordinary gains and losses?	1 = No proper disclosure 2 = Limited proper disclosure 3 = Sufficient proper disclosure 4 = Very much proper disclosure 5 = Very extensive proper disclosure
R7. To what extent does the annual report contain information regarding personnel policies?	1 = No information regarding personnel policies 2 = Limited information regarding personnel policies 3 = Sufficient information regarding personnel policies 4 = Very much information regarding personnel policies 5 = Very extensive information regarding personnel policies
R8. To what extent does the annual report contain information per division (e.g. Geographical, function)?	1 = No information 2 = Limited information 3 = Sufficient information 4 = Very much information 5 = Very extensive
R9. To what extent does the annual report contain an analysis concerning cash flows?	1 = No analysis 2 = Limited analysis 3 = Sufficient analysis 4 = Very much analysis 5 = Very extensive analysis

R10.To what extent are the intangible assets disclosed?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
R11.To what extent are the “off-balance” activities disclosed?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
R12.To what extent is the financial structure disclosed?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
R13. To what extent does the annual report contain information concerning the companies’ going concern?	1 = No information concerning going concern 2 = Limited information concerning going concern 3 = Sufficient information concerning going concern 4 = Very much information concerning going concern 5 = Very extensive information concerning going concern
F1. To what extent are valid arguments provided to support the decision for certain assumptions and estimates in annual report?	1 = No valid arguments 2 = Limited valid arguments 3 = Sufficient valid arguments 4 = Very much valid arguments 5 = Very extensive valid arguments
F2. To what extent does the company base its choice for certain accounting principles on valid arguments?	1 = No valid arguments 2 = Limited valid arguments 3 = Sufficient valid arguments 4 = Very much valid arguments 5 = Very extensive valid arguments
F3. Which type of auditors’ report is included in the annual report?	1 = Adverse opinion 2 = Disclaimer of opinion 3 = Qualified opinion (more than two remarks) 4 = Qualified opinion (1-2 remarks) 5 = Unqualified opinion
F4. To what extent does the annual report contain disclosure concerning the “comply or explain” application?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
F5. To what extent does the annual report contain disclosure related to both positive and negative contingencies (neutrality)?	1 = Only positive 2= Positive and limited reference to negative contingencies 3= sufficient reference to both positive and negative contingencies 4= Much reference to positive and negative contingencies 5= very extensive reference to both positive and negative contingencies
F6. To what extent does the annual reports contain information concerning bonuses of the board of directors?	1 = No information concerning bonuses 2 = Limited information concerning bonuses 3 = Sufficient information concerning bonuses 4 = Very much information concerning bonuses 5 = Very extensive information concerning bonuses

U1. To what extent is the annual report presented in a well-organized manner?	1 = Very bad presentation 2 = Bad presentation 3 = Poor presentation 4 = Good presentation 5 = Very good presentation
U2. To what extent does the presence of graphs and tables clarify the presented information?	1 = No graphs 2 = Limited extend (1-5 graphs) 3 = Sufficient extend (6-10 graphs) 4 = A lot of graphs (11-15 graphs) 5 = Many graphs ( > 15 graphs)
U3. To what extent technical jargon used are explained and understandable?	1 = Non understandable 2 = Little understandable 3 = Sufficiently understandable 4 = Much understandable 5 = Very much understandable
U4. Is there a glossary and what is the size of it?	1 = No glossary 2 = No glossary but random explanations 3 = There is a small glossary (less than a page) 4 = there is a glossary of 1-2 pages 5 = there is a very extensive glossary > 2 pages
U5. To what extent does the annual report contain information concerning mission and strategy?	1 = No information concerning mission and strategy 2 = Limited information concerning mission and strategy 3 = Sufficient information concerning mission and strategy 4 = Very much information concerning mission and strategy 5 = Very extensive information concerning mission and strategy
U6. To what extent are notes analytical and understandable in the perception of the researcher?	1 = No analytical or understandable 2= Short analysis, low understandable 3= sufficient analysis 4=Much analysis 5=Very extended analysis
C1. To what extent are changes in accounting policies disclosed and their consequences are explained?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
C2. To what extent are changes in accounting estimates and their consequences disclosed?	1 = No disclosure 2 = Limited disclosure 3 = Sufficient disclosure 4 = Very much disclosure 5 = Very extensive disclosure
C3. To what extend the company adjusted the previous period data or corrected mistakes and for how many years?	1 = No adjustment 2= No adjustment but description of the change in “notes” 3 = Actual adjustments (1 year) 4 = Adjustment (2 years) 5 = Adjustment (2 years) and description of the change in “notes”
C4. To what extent does the company present financial index numbers and ratios in the annual report?	1 = No ratios 2 = 1-5 ratios 3 = 6-10 ratios 4 = 11-15 ratios 5 = > 15 ratios

C5. To what extent does the annual report contain information concerning companies' shares / corporate dividends?	1 = No information 2 = Limited information 3 = Sufficient information 4 = Very much information 5 = Very extensive information
C6. To what extent does the annual report contain benchmark information concerning competitors?	1 = No benchmark information 2 = Limited benchmark information 3 = Sufficient benchmark information 4 = Very much benchmark information 5 = Very extensive benchmark information
T1. How many days after the end of the fiscal year did a) the external auditor or b) the Board of Directors sign the annual financial reports?	1 = > 240 days 2 = 181 - 240 days 3 = 121 - 180 days 4 = 61 - 120 days 5 = ≤ 60 days

**B. Descriptive statistics of the quality variables of the study, according to the index**

Variable	N	Minimum	Maximum	Mean
<b>Relevance</b>				
R1.	123	1	4	2.14
R2.	123	1	4	2.14
R3.	123	1	5	2.58
R4.	123	1	4	2.28
R5.	123	1	5	1.59
R6.	123	1	5	3.16
R7.	123	1	4	2.44
R8.	123	1	5	2.93
R9.	123	1	5	1.67
R10.	123	2	5	3.07
R11.	123	2	5	3.36
R12.	123	2	5	3.12
R13.	123	3	5	3.80
<b>Total</b>				<b>2.64</b>
<b>Faithful Representation</b>				
F1.	123	1	4	2.59
F2.	123	1	4	2.57
F3.	86*	2	5	3.51
F4.	123	2	5	3.53
F5.	123	2	4	3.19
F6.	123	2	5	3.23
<b>Total</b>				<b>3.05</b>
<b>Understandability</b>				
U1.	123	2	5	3.36
U2.	123	2	5	3.37
U3.	123	1	4	2.32
U4.	123	1	2	1.76
U5.	123	1	4	1.92
U6.	123	2	4	3.33
<b>Total</b>				<b>2.67</b>
<b>Comparability</b>				
<b>C1.</b>	123	1	5	3.02
<b>C2.</b>	123	1	5	2.90
<b>C3.</b>	123	1	5	3.42

<b>C4.</b>	123	1	5	3.02
<b>C5.</b>	123	2	5	2.91
<b>C6.</b>	123	1	3	1.20
<b>Total</b>				<b>2.75</b>
<b>Timeliness</b>				
<b>T1.</b>	123	1	5	2.66
<b>Total</b>				<b>2.66</b>
<b>Grand Total</b>				<b>2.75</b>

**C. The Stratification of the population and sample selection**

STRATIFICATION					
SECTIONS	CATEGORY	GEOGRAPHIC AL AREA	SIZE	POPULA TION	SAMPLE (12% OF THE POP)
S1	COMMERCIAL	ATTICA	SMALL*	128	15
S2	INDUSTRIAL	ATTICA	SMALL	70	8
S3	SERVICES	ATTICA	SMALL	137	16
		OUTSIDE	SMALL		
S4	COMMERCIAL	ATTICA		104	13
		OUTSIDE	SMALL		
S5	INDUSTRIAL	ATTICA		120	14
		OUTSIDE	SMALL		
S6	SERVICES	ATTICA		95	11
		ATTICA	MEDIUM*		
S7	COMMERCIAL		*	74	9
S8	INDUSTRIAL	ATTICA	MEDIUM	24	3
S9	SERVICES	ATTICA	MEDIUM	47	6
		OUTSIDE	MEDIUM		
S10	COMMERCIAL	ATTICA		31	4
		OUTSIDE	MEDIUM		
S11	INDUSTRIAL	ATTICA		57	7
		OUTSIDE	MEDIUM		
S12	SERVICES	ATTICA		11	1
S13	COMMERCIAL	ATTICA	BIG***	30	4
S14	INDUSTRIAL	ATTICA	BIG	46	6
S15	SERVICES	ATTICA	BIG	6	1
		OUTSIDE	BIG		
S16	COMMERCIAL	ATTICA		14	2
		OUTSIDE	BIG		
S17	INDUSTRIAL	ATTICA		16	2
		OUTSIDE	BIG		
S18	SERVICES	ATTICA		4	1
	<b>TOTAL</b>			<b>1.014</b>	<b>123</b>

\*SALES BETWEEN 1,000,000 AND 8,000,000

\*\*SALES BETWEEN 8,000,001 AND 40,000,000

\*\*\*SALES MORE THAN 40,000,001.