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Are Small Enterprises Ready for the Implementation of IFRS? The Case of Greece

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Abstract

This paper investigates the level of readiness and the degree of familiarity among small and medium-sized Greek enterprises (SMEs) for the application of international financial reporting standards (IFRS). Readiness is defined as the capability for the full application of IFRS , and familiarity is understood in terms of the entity's knowledge and competence in using IFRS. The present research is based on the statistical analysis of questionnaires completed by company accountants. Chi-square tests show that the level of readiness for the application of IFRS is not independent of: (i) whether the company is listed or unlisted; (ii) the size of the company; and (iii) the field of activity of the company. The results also show that the size of a company is not independent of: (i) the educational level of the accountant; and (ii) the years of professional experience of the accountant. No

relationship is established between the company's classification (as listed or unlisted) and the accountant's level of familiarity with the application of IFRS. In addition, correspondence analysis is used to investigate the interdependence and interaction of all variables. The results of this analysis are presented in an ascendant hierarchy, thus allowing the variables to be classified into three groups of interest.

KEYWORDS: international financial reporting standards (IFRS), small and medium-sized enterprises (SMEs), financial statements, disclosure, harmonization, Greek accounting standards

JEL classification: M400, M490, M190

Introduction

In the past, the variability of national reporting standards allowed companies to choose from numerous accounting methods in presenting their financial statements. This caused uncertainty about the reliability and usefulness of the information derived from these reports. It was also very difficult to compare the financial statements of companies situated in different countries. However, since the 1970s, many European companies, mainly large ones, have recognised the need for a more comprehensible presentation of their financial statements to international capital markets (Cairns, 1997).

Within the past two years, spectacular changes have taken place—mostly in the USA, but also in the European Union (EU)—to boost the confidence of investors and to facilitate the functionning of money markets. Such changes have become necessary because of the significant losses suffered by shareholders of certain large companies—such as Enron and WorldCom in America, and Ahold in Europe. These losses were caused by a dramatic drop in the stock value of the companies, which was, in turn, the result of a mis-statement of the companies' financial situation as published and checked by chartered accountants. Although there has been no incident of a similar magnitude in Greece, there have been a lot of examples of company scandals during the period 1999-2003. The Bank of Crete scandal was the first that also affected chartered accountants' job. Some of the latest examples refer to ETBA Finance and Connection SA, which have given rise to discussion as to whether there should be any confidence in the independence and quality of the work of chartered accountants.

Since May 2003 the Sarbanes-Oxley law has come into force in the USA,

according to which firms of chartered accountants are strictly forbidden from providing non-auditing services to both their clients and their clients' subsidiaries all over the world, without the prior approval of each company's supervising board.

The application of international financial reporting standards (IFRS) is easier in countries that have a history of using financial reporting standards produced independently by the private sector. In Greece, up to to 1995, there had been no systematic attempt to force an external audit of the financial statements of large private companies (Cantzos, 1995). Law 3329/55 introduced the Society of Chartered Accountants (Soma Orkoton Logiston – SOL) into Greek company law. Until 1991, the mandatory audit of companies—the main purpose of which was to guarantee the interests of the shareholders and to monitor overall company management—was the exclusive privilege of a body of chartered accountants with an organizational structure reminiscent of a quasi civil service. In 1991 Greece enacted an independent body of certified chartered accountants under the law. The incorporation of the EC Eighth Directive into law 1969/91 and decree-law 226/92 allowed private auditing firms to undertake external auditing in Greece (Cantzos, 1995). Law 1969/91 specified that external auditing of firms should be conducted by members of a new body called the Society of Chartered Auditors (Soma Orkoton Elegkton – SOEL). It is interesting to note that the nature and the organizational structure of the SOL were suggested to the Greek government by British auditors. Since then, demands for disclosure of information to shareholders and comparability of accounts have led to the idea of applying IFRS.

The application of IFRS will provide a robust set of rules common to all companies, thus constraining the phenomenon of 'creative accounting'—whereby the figures in the annual accounts are manipulated to influence investors' behaviour.

The number of papers on the application of IFRS in small and medium-sized enterprises (SMEs) is limited. According to EU L107/30.4.96, small and medium-sized enterprises are those that employ less than 250 persons and realize an annual turnover of less than 40 million euros. This paper contributes to an understanding of this issue with respect to Greek SMEs. Chi-square tests and correspondence analysis are used to provide some insights into the relationship between the characteristics of SMEs and the experience, educational level, and knowledge of IFRS among accountants.

Development and adoption of IFRS and accounting harmonization in Europe

The process of harmonization of financial accounting in the European Union (EU) has its roots in the Fourth Directive (July 1978) and the Seventh Directive (June 1983). The EU's efforts in accounting are part of a wider effort to harmonize institutions, irrespective of the size or status of the enterprise (Thorell and Whittington, 1994). The harmonization of the Fourth Directive and the Seventh Directive with the national law of every European member state has been the main focus of interest, and has finally been completed. Table 1 shows the time of integration of the two directives in the national law of every member state.

The European strategy for accounting harmonization as stated in the document "Accounting Harmonisation: A New Strategy vis–à–vis International Harmonisation" (European Commission, 1995) remains one of the most important developments in the harmonization of accounting during the past decade. The significance of this strategy was initially recognized by Flower (1997) and Cairns (1997), and it can now be seen to have led directly to the adoption in law of IFRS by the EU.

The process of harmonization in financial accountancy within the EU has been supported by the International Accounting Standards Board (IASB). The European Commission has proposed that, from 2005 at the latest, all EU companies listed on a regulated market should be required to publish their consolidated accounts in accordance with a single set of accounting standards, the IFRS (formerly the International Accounting Standards)—which are recognized worldwide as the most reliable international accounting standards.

In September 2003 the European Commission adopted Rgulation (EC) 1725/2003 endorsing certain International Financial Reporting Standards (IFRS) (formerly known as International Accounting Standards – IAS), thus confirming the requirement of the general Regulation adopted by the European Parliament and the European Council in 2002 (EC 1606/2002, also called the "2002 Regulation"). The 2002 Regulation requires all listed companies, including banks and insurance companies, to prepare consolidated statements in accordance with IFRS from January 2005 onwards. The Regulation also provides to the EU member states a number of options regarding unlisted companies.

Table1: Transformation of the Fourth **and** Seventh **Directives into national laws**

Member State	Fourth Directive	Seventh Directive	Member State	Fourth Directive	Seventh Directive
Austria	1996	1996	Italy	1991	1991
Belgium	1984	1990	Luxemburg	1984	1988
Denmark	1981	1990	Netherlands	1983	1989
Finland	1992	1992	Portugal	1989	1991
France	1983	1985	Spain	1989	1991
Germany	1985	1985	Sweden	1995	1995
Greece	1986	1986	UK	1981	1989
Ireland	1986	1992			

SOURCE: Haller, A. (2002) 'Financial accounting developments in the E.U.: past events and future prospects', European Accounting Review, 11 (1): 153-190

The adoption in law of IFRS is a vital step towards the achievement of accounting harmonization within the EU. From 2005 onwards, almost 7,000 listed companies on the stock exchanges of the EU will be using IFRS. This will mark the transition from the strategic planning announced in the European Commission document of 1995 to the application of the proposal in 2005.

Adoption of IFRS in Greece

In Greece, publication of company financial statements is undertaken mainly for taxation purposes. As a result, the image of companies is still dominated by historical cost valuation. Proposals to move away from the cost concept to some form of market valuation have been announced and tested. For example, Greek companies periodically (every four years) need to revalue certain of their fixed assets in accordance with taxation reporting rules to ensure that their market value is reflected in their financial reports. However, the cost concept still predominates in contemporary accounting.

Similarly, little emphasis is placed on the disclosure of information in Greece. Rather, the accounting presentation of information is directly related to the demands of taxation legislation. An evaluation methodology has been developed by Lamb, Nobes and Roberts (1998) to investigate: (i) the relationship between taxation legislation and practice; and (ii) the relationship between financial information and practice. According to the methodology, Greece can be classified in Case IV ('Tax leads'; in which a taxation rule is followed for taxation purposes and for financial reporting purposes) or, in some occasions, in Case V ('Tax dominates'; in which a taxation rule or option is followed for taxation and financial reporting purposes rather than a conflicting financial reporting rule). Greece is thus similar to other countries of continental Europe in which taxation plays a major role in the drawing-up of financial statements.

In an attempt to regain the trust of international investors, the Greek government enacted law 2992/2002—which imposed the mandatory application of IFRS by listed companies from the beginning of 2003. Through this law Greece adopted IFRS sooner than any other EU member state. According to this law, the application of IFRS from 2003 onwards was to be obligatory for Greek companies listed on the Athens Stock Exchange, and optional for companies not listed on the stock exchange but audited by chartered accountants.

With a more recent law (3148/2003), Greece moved to alleviate potential problems that might have emerged from its hasty introduction of obligatory IFRS in 2003.

The balance sheet was deemed to be the only financial statement that listed companies had to publish according to IFRS by 2003. In practice, this required only a readjustment of the balance sheet, and not a full application of IFRS as such. This law (3148/2003) moved Greece a further step towards the establishment of an Accounting Standardization and Auditing Board. This board, as a statutory body, was to supervise chartered auditors on the basis of their adherence to regulation ethics, their ability to perform audits, and the general quality of their work. Until recently, chartered accountants were supervised only on the basis of their auditing reports, and not their actions. Only in rare cases of unambiguous ethical violation would a chartered accountant suffer any penalty. The Accounting Standardization and Auditing Board has been established with significant powers—such as the supervision of the proper application of accounting standards, possible amendments in accounting rules, and the accounting standardization of companies that must comply with IFRS. The potential benefits include: (i) earlier detection of defective auditing through random inspections; (ii) encouragement of transparency and disclosure as a result of the existence of an independent institution; and (iii) increased investment activity, reinforced through greater trust on the part of investors.

IFRS, compared to Greek accounting standards, entail different accounting approaches and settlements in many issues, such as intangible assets, fixed assets evaluation, depreciation, leasing, long-term receivables, contingencies, project contracts, subsidies, financial revenues, income taxes and consolidation. The income statement is particularly affected by IFRS; for instance, according to IFRS, the consolidated income statement of EFG Eurobank Ergasias for 2004 reveals an increase of 5 million euros in operating profit, along with a decrease of 28 million euros in net profit – compared to Greek accounting standards. Therefore, the negative impact of IFRS on profits can be considered as a possible explanation for the Greek companies' postponement of IFRS adoption and implementation.

Literature review

Many studies have focused on the company characteristics that affect the disclosure of information in annual reports. These characteristics include the company's size, leverage, profitability, field of activity, and auditor type. Other factors include the size of the capital market in which the company operates and whether the company is listed or unlisted.

Cooke (1989, 1991) and Gray, Meek and Roberts (1995) have observed that the voluntary disclosure of information and the classification of a company as listed or unlisted are positively related. Street and Gray (2002) reached the same conclusion

and added that compliance with IFRS is related to the classification of a company among those listed on the stock exchange. Chow and Wong-Boren (1987), Cooke (1989, 1991), and Meek, Roberts and Gray (1995) recognized that compliance with IFRS is positively related to company size and the company's listing status.

Belkaoui and Kahl (1978) and Wallace and Naser (1995) have observed a positive relationship between profitability and the level of disclosure. However, McNally, Eng and Hasseldine (1982) reported the opposite relationship between profitability and level of disclosure. Inchausti (1997) and Dumontier and Raffournier (1998) found no relationship between profitability and the level of disclosure. Street and Gray (2002) reached the conclusion that profitability is related to the extent of compliance with the requirements of IFRS.

With respect to a company's field of activity and the level of information disclosure (particularly among companies in the industrial sector), Cooke (1989, 1991, 1992), Inchausti (1997), and Gray, Meek and Roberts (1995) have reached contradictory conclusions.

It has been found that the companies audited by the 'Big Four' (Price-Waterhouse-Coopers, Ernst & Young, Deloitte & Touche, and KPMG) have complied with IFRS earlier (and to a greater extent) than companies audited by other auditing firms (Street and Gray, 2002). Earlier studies, such as those of Craswell and Taylor (1992), Dumontier and Raffournier (1998), and Inchausti (1997) provide some evidence that the level of disclosure may be associated with the type of auditor. Moreover, Street and Gray (2002) have shown that compliance with IFRS and the operation of a company in France, Germany, or any other western European country are negatively related.

Accountancy needs vary—depending on the size and legal status of a company. SMEs are not required to provide as much published information as larger enterprises (Thorell and Whittington, 1994). The usefulness of the Financial Reporting Standards for Smaller Entities (FRSSE) in drawing-up the financial statements of small businesses was the main focus of research conducted by John and Healeas (2000), which was assisted by the Association of Certified Chartered Accountants. The general conclusion was that the FRSEE represented a codification (with minor amendments) of existing standards—with more than 700 pages of regulations being reduced to 76. Although this was welcomed by many as a step in the right direction, others felt that it failed to recognize the fact that small companies are not scaled-down versions of larger ones, and should not be treated as such. The majority of those questioned by John and Healeas (2000) believed that the establishment of such standards was cosmetic only, and did not constitute a

significant change.

If capital markets are to function effectively, a free flow of information is required. There is therefore a need for full disclosure of information by listed companies. However, as John and Healeas (2000) maintained, a similar requirement for full disclosure does not apply to small companies. Page (1984) conducted research in the United Kingdom on the significance of annual reports for small companies. His study suggests that financial statements represent an important source of management information for SMEs in the UK. Similar studies have been carried out by Carsberg *et al.* (1985) and by Barker and Noonan (1996), who reached the conclusion that the financial statements constitute an important source of information for management. Chauveau *et al.* (1996) and Moneva (1993) found that the financial statements of small companies are more important for management and the banks (as external users of information). Using a questionnaire to study United Kingdom companies, Hussey and Hussey (1997) found that banks and company directors are the main users of the financial reports of SMEs. McMahon and Holmes (1991) reviewed many studies dealing with the financial management and reporting practices of small firms in North America and reached the conclusion that financial reporting practices among small firms have not undergone any significant changes between 1975 and 1990. McMahon (1998) found that 84.5% of small manufacturing companies prepared both balance sheets and income statements, whereas only 79.6% prepared cash-flow statements. According to this study, SMEs draft their financial statement with a view to covering the information required by banks and company managers.

Several studies have examined the compliance of SMEs with IFRS in various countries. These include Switzerland (Dumontier and Raffournier, 1998; Murphy, 1999), Germany (Maria and Ana, 2000), and Bahrain (Joshi and Ramadhan, 2002). El-Gazzar *et al.* (1999) examined the voluntary adoption of IFRS by multinational companies. Murphy (1999) identified some benefits of using IAS by comparing the differences between the companies that adopted IAS and those that adopted local standards.

According to the Intergovernmental Working Group of Experts on International Standards of Accounting Reporting, SMEs in most countries have been required to conduct their accounting and reporting on the basis of standards originally intended for larger companies (ISAR, 2001). A coherent three-level framework was therefore developed to allow SMEs to proceed logically from one level to another as they developed. Level I included listed companies, which were expected to comply fully with IFRS requirements. Level II included larger SMEs, for which a modified set of standards was preferred. Level III concerned smaller entities with

limited access to accounting expertise. However, each country was free to define different categories of SMEs in a manner appropriate to its needs.

Methodology

The main focus of the present paper is the application of IFRS to Greek SMEs, and the level of readiness and familiarity of accountants to undertake that application. Readiness for IFRS is defined as the capability for full IFRS application, and familiarity is understood in terms of the entity's knowledge and competence in using IFRS.

A questionnaire consisting of 14 questions was sent to the accountants of 70 companies in the beginning of 2003 (before law 3148/2003 brought about a partial postponement of the IFRS implementation for one year). The questionnaire was divided into four main groups of questions: 1) Group A contained introductory questions in order to establish the company's profile (e.g. annual turnover, listing status and activity sector), 2) Group B helped us find out whether the companies are ready to use IFRS, 3) Group C investigated the accountants' degree of familiarity with IFRS and 4) Group D inquired a precise measurement of accountants' knowledge of IFRS. Responses reflected the accountants' readiness for, and familiarity with, IFRS—as assessed on a five-level Likert-type scale.

Sample selection was based on a non-probability judgment selection. Of the 70 questionnaires, 62 were returned completed. The companies of the sample were categorized into: (i) those listed on the Parallel market of the Athens Stock Exchange (which requires equity capital greater than €2.9 million); and (ii) those that were unlisted (but being audited by chartered accountants). In the first category, all 24 companies responded (response rate 100%), but two of them had to be removed from the sample because they could not be characterized as SMEs. In the second category, 46 questionnaires were sent out and 38 completed questionnaires were returned (response rate 82.6%).

Results

Classification of company and readiness for application of IFRS

Table 2 shows the level of readiness for application of IFRS among listed and unlisted companies. Readiness for IFRS was characterized by the respondents as either "very little" or "non-existent". The other three alternatives ("medium", "good", and "very good") have been omitted from the table because they were not selected by any respondent.

There was a statistically significant relationship ($p < 0.05$) between the classification of a company (whether listed on the stock exchange or not) and the level of readiness for application of IFRS

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Turnover and readiness for application of IFRS

Table 3 shows the level of readiness to apply IFRS in relation to company turnover. Three of the five levels of readiness from the Likert scale are again omitted from the table because the other two levels of readiness covered all responses. Turnover was categorized as follows: (i) 0–€2.4 million (ii) €2.5 million–€6.9 million; and (iii) €7.0 million–€14.9 million. No company had a turnover greater than €14.9 million. Table 3 contains a total of 58 answers instead of 60, because 2 companies refused to reveal their annual turnover.

A statistically significant relationship ($p < 0.05$) was found between the size of the company and the degree of readiness for the application of IFRS. It is apparent that companies listed on the stock exchange were most prepared for the application of IFRS. Similarly, medium-sized companies were more prepared than small ones.

Activity sector and level of readiness for application of IFRS

Table 4 shows the level of companies' readiness for the application of IFRS according to their classification in a particular field of activity (industry sector, trade sector, or services sector). As with the previous tables, three of the five levels of readiness from the Likert scale are omitted from the table because the other two levels of readiness covered all responses. Activity sector was assessed in two main groups of SMEs: (i) those engaged only in manufacturing activity; and (ii) those with mixed activity in manufacturing, trading, and services.

A statistically significant relationship ($p < 0.05$) was established between company classification in certain sectors (especially in the industry sector) and the level of readiness to apply IFRS. Industrial companies are more prepared for the application of IFRS than other companies.

Educational level of accountants and company turnover

Table 5 shows the educational level of accountants who work with small and medium-sized businesses in the sample. Educational level was classified in three categories: (i) accountants with a master's degree; (ii) accountants with a bachelor's degree; and (iii) accountants with a diploma from technical university.

Turnover levels were classified in the same way as in Table 3. It is noted that the following table contains a total of 58 answers instead of 60, because 2 companies refused to reveal their annual turnover.

There was a statistically significant relationship ($p < 0.05$) between companies with larger turnover (medium-sized companies as opposed to small companies) and accountants of a higher educational level (a postgraduate or doctoral qualification). It is apparent that accountants possessing formal qualifications (university degree or postgraduate diploma) are employed by companies who have a larger turnover.

Work experience of accountants and company turnover

Table 6 shows the years of work experience of accountants who are employed by small and medium-sized companies in the sample. Despite their size, all the SMEs of the sample employed accountants with 5 years of experience or more. The accountants' experience was categorized into five groups: (i) 5–10 years; (ii) 11–15 years; (iii) 16–20 years; (iv) 21–30 years; and (v) 31 years or more. Table 6 contains a total of 58 answers instead of 60, as it has already been stated that 2 companies refused to reveal their annual turnover.

A statistically significant relationship ($p < 0.05$) was established between companies with large turnover and accountants with the longest work experience. It is apparent that accountants with the longest professional experience are employed by companies with the largest turnover. Certainly, the employment of experienced accountants by companies with large turnover emerges as a result of the companies' ability to provide high financial rewards.

Accountants' familiarity with IFRS and classification of company

Table 7 shows the level of familiarity with IFRS among accountants and the classification of a company (whether listed on the stock exchange or not). A five-level Likert-type scale was used to characterize familiarity as: (i) excellent; (ii) very good; (iii) medium; (iv) poor; or (v) very poor. The last three categories covered all responses, and the first two levels were therefore omitted from the table.

No statistically significant relationship was found between a company's classification (as listed or unlisted) and the level of familiarity with IFRS among accountants ($p > 0.05$). It is apparent that if the accountants of SMEs have insufficient knowledge of IFRS, this is irrespective of whether they are employed by a listed company or a non-listed company.

Table 2: Relation between the company's classification as listed in the stock exchange or not and the level of readiness for the application of IFRS.

Listing status * Readiness Cross-tabulation

		Readiness		Total
		Non-existent	Very little	
Listing status	Listed companies			
	Count	16	6	22
	% within Listing status	72,7%	27,3%	100,0%
	% within Readiness	30,8%	75,0%	36,7%
	% of Total	26,7%	10,0%	36,7%
	Unlisted companies			
	Count	36	2	38
	% within Listing status	94,7%	5,3%	100,0%
	% within Readiness	69,2%	25,0%	63,3%
	% of Total	60,0%	3,3%	63,3%
Total	Count	52	8	60
	% within Listing status	86,7%	13,3%	100,0%
	% within Readiness	100,0%	100,0%	100,0%
	% of Total	86,7%	13,3%	100,0%

Chi - Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5,841	1	,016		
Continuity Correction	4,092	1	,043		
Likelihood Ratio	5,668	1	,017		
Fisher's Exact Test				,042	,023
Linear-by-Linear Association	5,744	1	,017		
N of Valid Cases	60				

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-,312	,016
	Cramer's V	,312	,016
N of Valid Cases		60	

Table 3: Relation between turnover and level of readiness for the application of IFRS

Turnover ann * Readiness Cross-tabulation

		Readiness		Total
		Not at all	Very little	
Turnover ann	0 – 2,4 mil. euros			
	Count	34	2	36
	% within Turnover ann	94,4%	5,6%	100,0%
	% within Readiness	68,0%	25,0%	62,1%
	% of Total	58,6%	3,4%	62,1%
	2,5 – 6,9 mil. euros			
	Count	13	3	16
	% within Turnover ann	81,3%	18,8%	100,0%
	% within Readiness	26,0%	37,5%	27,6%
	% of Total	22,4%	5,2%	27,6%
	7,0 – 14,9 mil. euros			
	Count	3	3	6
	% within Turnover ann	50,0%	50,0%	100,0%
	% within Readiness	6,0%	37,5%	10,3%
	% of Total	5,2%	5,2%	10,3%
Total	Count	50	8	58
	% within Turnover ann	86,2%	13,8%	100,0%
	% within Readiness	100,0%	100,0%	100,0%
	% of Total	86,2%	13,8%	100,0%

Chi - Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9,000	2	,011
Likelihood Ratio	7,330	2	,026
Linear-by-Linear Association	8,239	1	,004
N of Valid Cases	58		

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,394	,011
	Cramer's V	,394	,011
N of Valid Cases		58	

Table 4: Relation between classification in activity sector and level of readiness for the application of IFRS

Classification *Readiness Cross-tabulation

		Readiness		Total
		Not at all	Very little	
Classification	Manufacturing activity			
	Count	44	4	48
	% within Classification	91,7%	8,3%	100,0%
	% within Readiness	84,6%	50,0%	80,0%
	% of Total	73,3%	6,7%	80,0%
	Mixed activity			
	Count	8	4	12
	% within Classification	66,7%	33,3%	100,0%
	% within Readiness	15,4%	50,0%	20,0%
	% of Total	13,3%	6,7%	20,0%
Total	Count	52	8	60
	% within Classification	86,7%	13,3%	100,0%
	% within Readiness	100,0%	100,0%	100,0%
	% of Total	86,7%	13,3%	100,0%

Chi - Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5,192	1	,023		
Continuity Correction	3,254	1	,071		
Likelihood Ratio	4,308	1	,038		
Fisher's Exact Test				,043	,043
Linear-by-Linear Association	5,106	1	,024		
N of Valid Cases	60				

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,294	,023
	Cramer's V	,294	,023
N of Valid Cases		60	

Table 5: Relation between turnover and accountants' education level

Turnover ann * Education level Cross-tabulation

		Education level			Total
		Master	Bachelor	Tech. Univ.	
Turnover ann	0 – 2,4 mil. euros				
	Count	3	29	4	36
	% within Turnover ann	8,3%	80,6%	11,1%	100,0%
	% within Education level	42,9%	61,7%	100,0%	62,1%
	% of Total	5,2%	50,0%	6,9%	62,1%
	2,5 – 6,9 mil. euros				
	Count	0	16	0	16
	% within Turnover ann	,0%	100,0%	,0%	100,0%
	% within Education level	,0%	34,0%	,0%	27,6%
	% of Total	,0%	27,6%	,0%	27,6%
	7,0 – 14,9 mil. euros				
	Count	4	2	0	6
	% within Turnover ann	66,7%	33,3%	,0%	100,0%
	% within Education level	57,1%	4,3%	,0%	10,3%
	% of Total	6,9%	3,4%	,0%	10,3%
Total	Count	7	47	4	58
	% within Turnover ann	12,1%	81,0%	6,9%	100,0%
	% within Education level	100,0%	100,0%	100,0%	100,0%
	% of Total	12,1%	81,0%	6,9%	100,0%

Chi - Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22,007	4	,000
Likelihood Ratio	18,098	4	,001
Linear-by-Linear Association	8,519	1	,004
N of Valid Cases	58		

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,616	,000
	Cramer's V	,436	,000
N of Valid Cases		58	

Table 6: Relation between turnover and work experience

Turnover ann * Experience Cross-tabulation

		Experience (years)					Total
		5-10	11-15	16-20	21-30	More than 31	
Turnover ann	0 – 2,4 mil. euros						
	Count	4	14	8	10	0	36
	% within Turnover ann	11,1%	38,9%	22,2%	27,8%	,0%	100,0%
	% within Experience	100,0%	87,5%	66,7%	45,5%	,0%	62,1%
	% of Total	6,9%	24,1%	13,8%	17,2%	,0%	62,1%
	2,5 – 6,9 mil. euros						
	Count	0	2	0	10	4	16
	% within Turnover ann	,0%	12,5%	,0%	62,5%	25,0%	100,0%
	% within Experience	,0%	12,5%	,0%	45,5%	100,0%	27,6%
	% of Total	,0%	3,4%	,0%	17,2%	6,9%	27,6%
	7,0 – 14,9 mil. euros						
	Count	0	0	4	2	0	6
	% within Turnover ann	,0%	,0%	66,7%	33,3%	,0%	100,0%
	% within Experience	,0%	,0%	33,3%	9,1%	,0%	10,3%
	% of Total	,0%	,0%	6,9%	3,4%	,0%	10,3%
Total	Count	4	16	12	22	4	58
	% within Turnover ann	6,9%	27,6%	20,7%	37,9%	6,9%	100,0%
	% within Experience	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

% of Total	6,9%	27,6%	20,7%	37,9%	6,9%	100,0%

Chi - Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30,626	8	,000
Likelihood Ratio	34,311	8	,000
Linear-by-Linear Association	9,075	1	,003
N of Valid Cases	58		

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,727	,000
	Cramer's V	,514	,000
N of Valid Cases		58	

Table 7: Relation between classification of a company as listed in the stock market or not and the level of accountants' familiarity with IFRS.

Listing Status * IFRS level Cross-tabulation

		Familiarity with IFRS			Total
		Medium	Poor	Very poor	
Listing status	Listed companies				
	Count	12	8	2	22
	% within Listing status	54,5%	36,4%	9,1%	100,0%
	% within IFRS level	52,2%	36,4%	13,3%	36,7%
	% of Total	20,0%	13,3%	3,3%	36,7%
	Unlisted companies				
	Count	11	14	13	38
	% within Listing status	28,9%	36,8%	34,2%	100,0%
	% within IFRS level	47,8%	63,6%	86,7%	63,3%
	% of Total	18,3%	23,3%	21,7%	63,3%
Total	Count	23	22	15	60
	% within Listing status	38,3%	36,7%	25,0%	100,0%
	% within IFRS level	100,0%	100,0%	100,0%	100,0%
	% of Total	38,3%	36,7%	25,0%	100,0%

Chi - Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5,899	2	,052
Likelihood Ratio	6,396	2	,041
Linear-by-Linear Association	5,725	1	,017
N of Valid Cases	60		

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,314	,052
	Cramer's V	,314	,052
N of Valid Cases		60	

Overall assessment of variables

Having assessed the variables in pairs by chi-square tests (as discussed above), a holistic assessment of the interdependence of all variables was undertaken using a Burt matrix. The latter is a method of correspondence analysis expressed as a general contingency table of all variables in pairs (see Table 8). If X_1, X_2, …, X_P are the categorical variables that characterize a population of n, then K (X_K, X_J) is the contingency table of X_K and X_J variables. For example, contingency table K (X_2, X_2) crosses variable X_2 with itself. All contingency tables K (X_I, X_J) that result from variables X_1, X_2, …, X_P, are ranked in a matrix of matrices B of the following form:

$$B = \begin{array}{c} \\ X_1 \\ X_2 \\ \ldots\ldots \\ X_P \end{array} \begin{array}{c} \begin{array}{cccc} X_1 & X_2 & \ldots & X_P \end{array} \\ \begin{bmatrix} K(X_1,X_1) & K(X_1,X_2) & \ldots\ldots & K(X_1,X_P) \\ K(X_1,X_2) & K(X_2,X_2) & \ldots\ldots & K(X_2,X_P) \\ \ldots\ldots & \ldots\ldots & \ldots\ldots & \ldots\ldots \\ K(X_P,X_1) & K(X_P,X_2) & \ldots\ldots & K(X_P,X_P) \end{bmatrix} \end{array}$$

Table B is called Burt Matrix and represents all contingency tables that result from variables X_1, X_2, …, X_P in pairs.

Table 8 : BURT MATRIX

	M11	M12	M21	M22	M31	M32	M33	M41	M42	M51	M52	M53	M61	M62	M63	M64	M65	M71	M72	M73
M11	22	0	16	6	0	16	6	12	10	4	18	0	0	2	4	12	4	12	8	2
M12	0	38	36	2	36	0	2	36	2	3	29	6	6	14	8	10	0	11	14	13
M21	16	36	52	0	34	13	5	44	8	6	42	4	6	14	11	17	4	17	20	15
M22	6	2	0	8	2	3	3	4	4	1	5	2	0	2	1	5	0	6	2	0
M31	0	36	34	2	36	0	0	34	2	3	29	4	4	14	8	10	0	9	14	13
M32	16	0	13	3	0	16	0	9	7	0	16	0	0	2	0	10	4	8	7	1
M33	6	2	5	3	0	0	8	5	3	4	2	2	2	0	4	2	0	6	1	1
M41	12	36	44	4	34	9	5	48	0	4	40	4	6	12	9	20	1	20	14	14
M42	10	2	8	4	2	7	3	0	12	3	7	2	0	4	3	2	3	3	8	1
M51	4	3	6	1	3	0	4	4	3	7	0	0	0	0	4	3	0	5	1	1
M52	18	29	42	5	29	16	2	40	7	0	47	0	4	14	8	17	4	12	21	14
M53	0	6	4	2	4	0	2	4	2	0	0	6	2	2	0	2	0	6	0	0
M61	0	6	6	0	4	0	2	6	0	0	4	2	6	0	0	0	0	2	2	2
M62	2	14	14	2	14	2	0	12	4	0	14	2	0	16	0	0	0	2	3	11
M63	4	8	11	1	8	0	4	9	3	4	8	0	0	0	12	0	0	2	9	1
M64	12	10	17	5	10	10	2	20	2	3	17	2	0	0	0	22	0	17	5	0
M65	4	0	4	0	0	4	0	1	3	0	4	0	0	0	0	0	4	0	3	1
M71	12	11	17	6	9	8	6	20	3	5	12	6	2	2	2	17	0	23	0	0
M72	8	14	20	2	14	7	1	14	8	1	21	0	2	3	9	5	3	0	22	0
M73	2	13	15	0	13	1	1	14	1	1	14	0	2	11	1	0	1	0	0	15

The results are presented in Table 9 as a factorial diagram. The first factorial axis interprets 39.78% of the data, whereas the second factorial axis interprets 20.58%—thus covering a total of 60.36% of the interpretation of the phenomena.

Table 9

Table of characteristic roots

Total Inertia 0,4637					
N/o	Inertia	% of interpretation	Total	Histogram of characteristic root	
01	0,1844719	039,78	039,78	|**	
02	0,0954578	020,58	060,36	|**********************	
03	0,0621111	013,39	073,76	|***************	
04	0,0413250	008,91	082,67	|*********	
05	0,0315985	006,81	089,48	|*******	
06	0,0236574	005,10	094,58	|******	
07	0,0130000	002,80	097,39	|***	
08	0,0053182	001,15	098,53	|**	
09	0,0045406	000,98	099,51	|*	
10	0,0013331	000,29	099,80	|*	
11	0,0005382	000,12	099,92	|*	
12	0,0003678	000,08	100,00	|*	

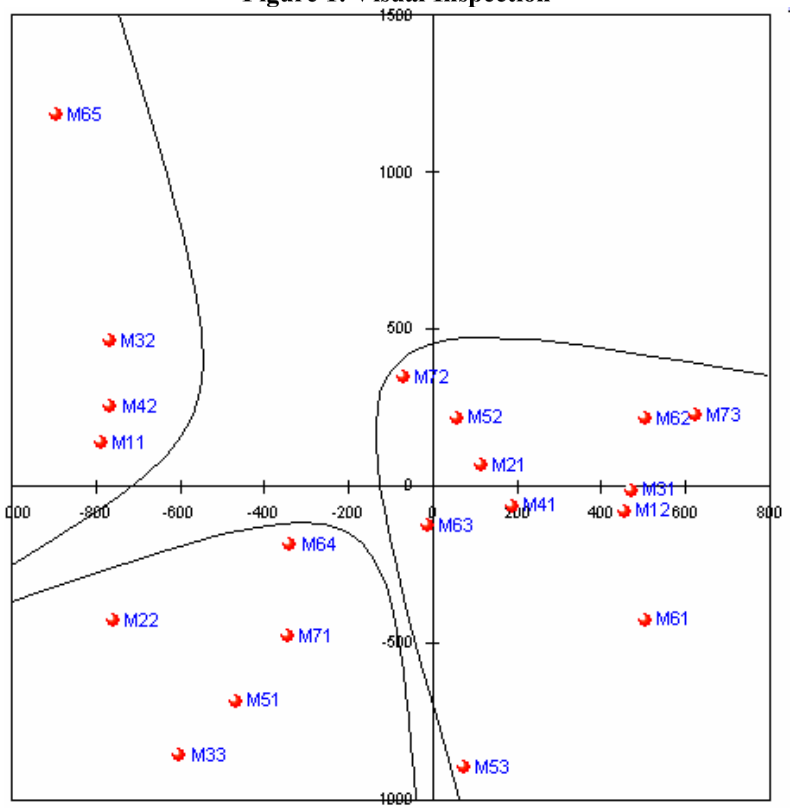
The research was completed by classifying the data in three discrete groups (Group 1, Group 2 and Group 3). The following categorization becomes apparent using classification in an ascendant hierarchy. The latter provides the possibility of grouping a total of 20 variables into 3 groups which is the most satisfactory option, because both the cohesion of the variables in each group and the discernibility among the three groups have been accomplished.

- *Group 1:* Accountants with work experience of 31 years or more (M65) who were employed in companies that: (i) were listed in the stock exchange (M11); (ii) had mixed activities (M42); and (iii) have a turnover in the range €2.5 million–€6.9 million (M32).

- *Group 2:* Accountants with 21–30 years of work experience (M64) who: (i) had a relatively low level of readiness for the application of IFRS (M22); (ii) had a postgraduate level of education (M51); (iii) had a medium level of familiarity with IFRS (M71); and (iv) were employed in companies with high turnover (€7.0 million–€14.9 million) (M33).

- *Group 3:* Accountants of limited experience and educational attainment employed in non-listed companies (M12) with small turnover (M31) and mainly manufacturing activities (M41)—the limited work experience and educational characteristics of these accountants being as follows: (i) no readiness for the application of IFRS (M21); (ii) very little work experience (M61), little work experience (M62), or medium work experience (M63); (iii) a diploma from a technical university (M53) or a university (M52); and (iv) very poor familiarity with IFRS (M73) or a poor degree of familiarity with IFRS (M72).

Figure 1: Visual Inspection



The first three columns of Table 10 are explained in further detail: (a) Index F1 represents the coordinates of the spots' projections on the first factorial axis, (b) Index COR represents the angle created by the spot and the first factorial axis, (c) Index CTR represents the spot's contribution in creating the first factorial axis. Index CTR has particular importance; large CTR means that the spot contributes to the phenomenon's main direction. The next set of three columns in the Table refers to the second factorial axis and so on.

The main direction of the dispersion (first factorial axis) is mostly due to the following variables:

- *M11 (CTR 174):* companies listed on the stock exchange;
- *M31 (CTR 103):* small turnover (0–€2.4 million);
- *M32 (CTR 130):* medium turnover (€2.5 million–6.9 million); and
- *M42 (CTR 88):* mixed activity.

In the second main direction of the dispersion (second factorial axis), the following variables made the most significant contribution:

- *M33 (CTR 146):* high turnover (€7.0 million–14.9 million);
- *M65 (CTR 131):* working experience of 31 years or more;
- *M71 (CTR 130):* medium level of familiarity; and
- *M53 (CTR 118):* educational level of technical university.

Table 10

Coordinates (FA), Projections (COR) and Contributions (CTR) of statistical units

	#F1	COR	CTR	#F2	COR	CTR	#F3	COR	CTR	#F4	COR	CTR
M11	-786	929	174	138	28	10	-25	0	0	14	0	0
M12	455	929	101	-81	28	6	13	0	0	-9	0	0
M21	116	414	9	66	134	5	28	24	1	-59	103	10
M22	-757	414	58	-431	134	36	-186	24	10	378	103	65
M31	472	929	103	-15	0	0	19	1	0	-40	6	3
M32	-765	640	120	460	232	84	-308	103	57	-36	1	1
M33	-600	222	37	-859	456	146	529	173	85	249	38	28
M41	190	546	22	-64	60	4	-87	112	13	-118	206	37
M42	-764	546	88	254	60	18	347	112	54	469	206	149
M51	-467	133	18	-686	287	78	712	310	130	-100	6	3
M52	59	53	2	216	703	54	-65	62	7	-64	60	10
M53	74	3	0	-899	433	118	-324	56	23	616	203	128
M61	505	158	19	-428	113	26	-5	0	0	173	18	10
M62	505	395	52	215	71	18	-103	16	6	472	346	205
M63	-10	0	0	-126	19	4	813	802	298	-279	93	52
M64	-338	275	32	-187	83	18	-394	373	129	-301	218	113
M65	-894	259	38	1181	453	131	140	6	2	337	36	24
M71	-343	259	34	-481	509	130	-293	188	74	-69	10	6
M72	-69	12	1	348	330	66	318	276	84	-164	72	33
M73	625	522	74	225	67	18	-20	0	0	344	158	100

Conclusions

Since January 2005 all European listed companies are obliged to prepare their financial statements in compliance with IFRS. So far little attention has been directed toward the impending impact of IFRS on the millions of unlisted European companies, which range from very large businesses to small owner-managed entities.

The European Commission believes that all European companies should follow the path of the IFRS. Thus, it has removed a series of legal obstacles regarding convergence, but the main responsibility has been left to national bodies that establish standards. Each member state will move at different speeds on the issue of converging national standards with IFRS for unlisted companies.

An unresolved issue is the extent to which IFRS should be altered in order to be adopted by small and medium-sized enterprises. The main objective of IFRS is to meet the information needs of investors in international capital markets, thus standards are increasingly designed to fulfil that role alone. However, the vast majority of the six million entities in Europe are small and privately-owned. Hence, any reporting system ought to be relevant to their needs and comprehensible to their users. Until now, key figures in international accountancy regulation have given little encouragement regarding the formation of a set of standards that are adapted to the needs of the European SMEs.

The conference'Beyond 2005: Financial Reporting by EU Private Companies', organized by the Association of Certified Chartered Accountants, unanimously agreed that the current form of IFRS is inappropriate for small companies.

According to a survey conducted by the Institute of Chartered Accountants in England & Wales (ICAWE), a diverse sample of unlisted SMEs was examined. Findings reported limited awareness as far as the introduction and implications of IFRS are concerned; 52% of the companies rated their understanding of IFRS as either 'fairly poor' or 'very poor'. Almost a quarter of all respondents felt that IFRS were not applicable to their business. The survey highlighted that this part of the respondents included mainly small companies. Nearly half (47%) of the respondents that declared applicability of IFRS to their entities felt that they were unprepared for the introduction of IFRS. Issues raised by the study by ICAEW are not far from the findings which emerge from our research concerning Greek SMEs. Apparently, neither Greek SMEs nor their accountants seem prepared for the adoption of IFRS.

The study concludes that the level of readiness of accountants for the implementation of IFRS in small and medium-sized Greek businesses is not independent of the classification of the company (as listed on the stock exchange or not). Similarly, the accountants' level of readiness is not independent of the size of the company (as measured by turnover) or the sector of activity in which it operates.

In contrast, the level of familiarity with IFRS among accountants who are employed in SMEs is independent of the classification of the company in which they are employed (as listed on the stock exchange or not).

The holistic assessment of the interdependence and interaction of all variables has shown that accountants who are employed in SMEs are unable to meet the demands of IFRS. This final conclusion indicates that Greek SMEs are unprepared for the full implementation of IFRS.

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