ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 08, Issue, 09, pp.22754-22761, September, 2018

ORIGINAL RESEARCH ARTICLE

OPEN ACCESS

HARMONIZATION OF ACCOUNTING POLICIES ACCORDING TO MANDATORY DISCLOSURES AS IMPOSED BY (IFRS) THE CASE OF GREECE

[1]Vazakidis Athanasios and [2,*]Konstantinoudis Kleanthis

[1]University of Macedonia, 156 Egnatia St., P.O. 1591, Thessaloniki, 54006, Greece
[2]Technological Education Institute of Central Macedonia, Terma Magnisias, 62124, Serres, Greece

ARTICLE INFO

Article History:

Received 20th June, 2018
Received in revised form
17th July, 2018
Accepted 24th August, 2018
Published online 29th September, 2018

Key Words:

Accounting Harmonization, Accounting Policies JELClassification: M40, M41, M49.

ABSTRACT

In the present research paper, the Van der Tas Herfindahl index or H index has been applied in order to verify the level of de facto harmonization, and accordingly comparability among the companies analyzed in this research. The primary objective of this dissertation is to determine the maturity level of harmonization degree for specific accounting methods since the mandatory implementation of IFRSs in 2005.The sample constituted by 100 Greek listed companies. The chosen companies were based on their market capitalization. Three accounting practices were included, depreciation, inventory and financial statement preparation. The results indicated that across the examined period 2009 - 2015, the majority of the H indices comparisons were positive and statistically significant for Greece.

Citation: Vazakidis Athanasios and Konstantinoudis Kleanthis, 2018. "Harmonization of accounting policies according to mandatory disclosures as imposed by (ifrs). the case of greece", *International Journal of Development Research*, 8, (09), 22754-22761.

INTRODUCTION

The growth of international trade and the expansion of multinational corporations necessitated the comparison of accounting data across national boundaries. A decisive step towards global harmonization has been the requirement by the IASB that all companies in the European Union, with shares traded on a regulated market within the common market area, to present their financial statements as stipulated by the regulatory framework IFRS. IFRS application in 2005 was supposed to lead to a more harmonized accounting practice within the EU, and thereby more transparent and comparable information in order to serve as a basis for decision making on the financial markets of the world. Before going further into the international accounting harmonization, it is necessary to consider whether the target is harmonization or standardization. Both harmonization and standardization are used rather loosely in accounting practice and in the literature. Harmonization is a movement away from the total diversity of practice and standardization is a movement toward uniformity. Standardization is described as a process by which all participants agree to follow the same or very similar accounting practices. The end result is a state of uniformity (Roberts *et al.*, 1998). Choi *et al.* (2002) claim that standardization implies that all accounting principles and practices are the same and describes the standardization as the imposition of rigid and narrow set of rules, and may even apply a single standard or rule to all situations. According to Rahman *et al.* (1996) harmonization has been distinguished between two different types, formal and material harmonization. More specifically, material harmonization, which is called *de facto* harmonization, refers to research from a practical point of view. That means that harmonization of accounting practices applied by different enterprises, is regarded. It is about the consistency in actual application (Rahman *et al.*, 1996). On the other hand, harmonization in terms of formal harmonization, called *de jure* harmonization, is researched from a theoretical point of view, which means that the similarities and diversities between rules and regulations of different countries and groups are regarded (Rahman *et al.*, 1996). Tay and Parker (1990) and Van der Tas (1988) differentiated between *de jure* and *de facto* harmonization. The former includes rules and standards contained in the law or professional studies, while the latter includes actual practices. Both of the authors embraced the substance of international financial comparability and the

***Corresponding author:* Konstantinoudis Kleanthis,**
Technological Education Institute of Central Macedonia, Terma Magnisias, 62124, Serres, Greece.

related operational impediments and they argued in favor of *de facto* harmonization as the most fit for measurement. The two types of harmonization are interrelated, respectively formal harmonization would normally be a first step towards the material harmonization, but this is not necessarily the case. Formal harmonization may be accompanied by disharmonization if the standards allow for more options for companies. At the same time, material harmonization might take place without being furthered by formal harmonization. This will be referred to as spontaneous harmonization (Canibano and Mora, 2000). Van der Tas (1992) states that harmonization of accounting practices may be obtained without furthering formal harmony. For instance, material harmonization can be achieved without harmonizing accounting standards if companies apply the same accounting methods, which are chosen from many optional methods. When companies apply similar accounting methods, under the same conditions, the degree of comparability between financial reports will increase (Van der Tas, 1988).

MATERIALS AND METHODS

Reasons and Obstacles for Harmonization Process

In the following part, a description is provided regarding the factors that have triggered an international harmonization of accounting standards. Nobes and Parker (2000) claim that the pressure for international harmonization comes from those who regulate, prepare and use financial statements. We may distinguish some key advantages of accounting harmonization and simultaneously some disadvantages. Starting from the benefits associated with harmonization we must underline the cost and money savings for multinational companies. From the viewpoint of multinational companies, harmonization potentially provides two concrete benefits. The first is reducing compliance costs associated with different sets of national rules. This benefit assumes that one set of general purpose financial reports can be prepared by the MNC to satisfy the information requirements of various users internationally. The second is the elimination of potential competitive disadvantages arising from differential use of measurement methods or the need to disclose “sensitive” proprietary information. Moreover, comprehensiveness and comparability are enhanced because of harmonization. Harmonization facilitates the comprehension and comparison of financial reports between different countries. Furthermore, widespread dissemination of high quality accounting standards and practices is boosted, while enhancement of common financial reporting language is achieved. The removal of barriers to international capital flows by reducing differences in financial reporting requirements for participants in international capital markets constitutes an additional advantage. Finally, harmonization facilitates more meaningful comparisons of the financial performance and financial position of businesses by improving the quality of financial reporting (Chairas and Radianto, 2001).

Literature Review

Prior Empirical Studies

Relative research on the use of accounting practices aim to reinforce the comparability of financial statements (Van der Tas, 1988). Harmonization is a procedure which correlates with the terms of normalization, standardization and uniformity. Standardization promote the uniformity of the financial statements and lead to a steadiness through formed rules. In addition, standardization, seems to be related with’ the decline or the exclusion of choice’ (Van der Tas, 1992). Finally, the harmonization of accounting practices is a matter that demands special approach (Athianos *et al*, 2005, Schuetze 1994, Goeltz 1991). Van der Tas methodology consisted the dawning of the most studies in the material harmonization measurement area. However, during the recent years derived methodologies appeared. The majority of the empirical research has inquired into *de facto* harmonization at a point in time. In this field, two different methodologies for measuring the level of *de facto* harmonization have been developed: indices and statistical models. Van der Tas was one of the first researchers who used indices to measure the comparability of financial statements. He developed three indices, namely H, C and I index, which were applied in his studies (Van der Tas, 1988). These indices are based on measuring options concentration and are used for measuring the level of *de facto* harmonization of financial reporting. In 1988, Van der Tas developed an index (called Herfindahl or H index) in order to calculate the harmonization extent regarding a specific national accounting system. The idea is that comparability increases when the result of the choice that companies make between alternative accounting methods becomes concentrated on one or only a limited number of methods (Van der Tas, 1992). Tay and Parker (1990) pointed out that the main problem of using the H index is coping with several reporting and additional information in the notes concerning the use of alternative accounting measurement methods. Even though they agreed with the proposals of Van der Tas (1988), they worked on alternative approaches to the measurement of harmonization such as non-parametric statistical tests and chi-square tests. Furthermore, Roberts *et al.* (2005) state that an additional restriction of H index is that it only measures harmonization in one country at the time and international comparison is not possible. Mustata and Matis (2010), also underlined that a main limitation of H index is that it can be applied when companies only use one alternative accounting method because it does not permit the analysis of multiple financial reporting or of that offering supplementary information through the notes to the financial statements. The existence of such multiple reporting led Van der Tas to develop the C index (Van der Tas, 1992). The C index consists a measurement basis of domestic harmonization degree when a business provides data for a number of alternative procedures of specific methods with regards to accounting. In other words, this index can provide to what extent can accounting information disclosed by companies be comparable. The C index is a simple ratio with a natural zero point, where no pair of financial reports is comparable, so regression analysis can be applied as a test of significance of movements in the degree of harmony (Mustata and Matis, 2010). The C index is computed as:

$$\mathrm{C} = \frac{\sum(n_i x(n_i - 1))}{N x(N-1)} \qquad (1)$$

where *C* is the Compatible Index, is the number of business entities with an accounting method *i* and *N* is the total number of business entities. Overall, the application of H index is appropriate in case enterprises utilize only one option of an accounting method. For instance, Herfindahl index can be properly implemented when companies want to allocate the cost of sales to inventory. More specifically, according to IAS

2 businesses should choose between two methods: first-in first-out (FIFO) and weighted average cost methods. On the other hand, C index is applied to accommodate multiple reporting by a company. For example, cost and equity methods can be utilized simultaneously by a company in order to justify the investments in its subsidiary. However, the extent of material harmonization as a result of applying H index or C index on the same accounting issue is expected to be approximately similar (Krisement, 1997). In order to facilitate the measurement of international harmonization, Van der Tas introduced the I index. Herrmann and Thomas (1995) stated that the I index is not intended to provide a sign of the statistical importance of harmonization. On the contrary, they believed that I index specifies harmonization for comparative reasons. The I index also fluctuates from 0 to 1, but due to the multiplication involved, it is sensitive to zero proportions. It is calculated as:

$$I = [\sum_{m=1}^{M}(\prod_{n=1}^{N} P_{mn})]^{\frac{1}{(N-1)}} \qquad (2)$$

where I is the Comparability Index, m is the alternative accounting method m, n is the country n and is the relative frequency of accounting method m in country n.

By adopting these indices, Van der Tas measured levels of harmonization, like deferred tax and investment tax credit, through the annual reports (1978 – 1984) both on national (U.K., Netherlands and USA) and international level (Netherlands and USA) and came to the conclusion that C index is a good method for measuring harmony (Van der Tas, 1992). Emenyonu and Gray (1992) conducted a study with two main purposes. First, an attempt was made to assess the practice of measuring assets and profit of large businesses in three EC countries (France, Germany and Great Britain) with significant differences in the context of the EC harmonization efforts in the context of EC Fourth Directive (1978) which establish measurement methods to be followed in preparing financial statements. Secondly, due to the necessity to quantify the extent of commonality in international accounting and harmony in these countries, annual reports (for the year 1989) of 26 large companies in each country were collected. They observed six key practice measurements of assets and profits: valuation of inventories, depreciation, goodwill, research and development, evaluation of fixed assets and exceptional items. The analysis was performed with the usage of Van der Tas's I index complemented by chi-square tests in order to identify significant differences and the extent of the harmony *de facto* measurement practice. Their results indicated major differences with a wide and relatively low range of harmony. Thus, the opinion that the provisions of the Fourth EC guidelines are flexible was confirmed, which leads to a need for significant adjustments in measurement practice between Member States.

Study of Herrmann and Thomas (1995) attempts to determine the level of accounting harmonization in the European Union by examining selected measurement practices, in the period between 1992 to 1993, of a series of chosen European enterprises. The level of harmonization was examined with the usage of chi-square test statistic, while the measurement of harmonization was conducted by using the I index. As previously said, I index consists a measurement basis of the degree of concentration of a specific accounting measurement method, while chi-square test examines the equality of the accounting methods for these countries. The results revealed that accounting for foreign currency translation of assets and liabilities, treatment of translation differences and inventory valuation were harmonized. On the other hand, harmonization of specific accounting practices such as depreciation, valuation of fixed assets and R&D costs, among others, did not occur. Lastly, the outcomes uncover that the harmonization level is more prominent among fairness-oriented nations than among law-oriented nations. In 1995, Archer *et al.* investigated the accounting decisions that were made by businesses in the European Union with a worldwide shareholding. The analyzed accounting policies included the treatment of goodwill and deferred taxation. They developed nested statistical models which allowed them to measure the level of harmony between countries in a period and the variations in the level of harmonization between two periods. They used the C index divided into within-country effects of domestic standardization and the effects of international harmonization. They concluded that a little progress has been made in the harmonization of deferred taxes and goodwill between 1986/87 and 1990/91. Emenyonu and Gray (1996) also studied the extent to which the accounting measurement and associated disclosure practices of large listed companies have become more harmonized internationally. Their research represents an empirical study of companies based on the five-major developed stock market countries (in particular USA, Germany, UK, Japan and France). With the usage of a chi-square statistic test and I index they examined a substantial period of time, which included twenty years of companies' data (between 1971 and 1991). Based on their research it was revealed that the impact of efforts to reduce international accounting diversity over the period studied had been indifferent.

The possibility to measure formal accounting harmonization among countries which achieved statistical-empirical comparison between the measurement and disclosure requirements for listed companies in Australia and New Zealand was examined by Rahman *et al.* (1996). They used multiple discriminate analysis to describe group differences. Their main result shows a higher level of harmonization required measurements and a diminishing harmony degree with disclosure necessities. The objective of the research of Weetman *et al.* (1998) was to examine the benefits of United Kingdom businesses operated in Securities and Exchange Commission (SEC) and particularly in 1998 and 1994. Their exploration exhibited an expanding hole between the revealed benefit under UK accounting standards and that reaffirmed under US GAAP. Furthermore, they concluded that domestic firms would insist on national accounting standards, unlike with the MNC's and businesses that operate in Stocks Exchange markets which would be interested in the harmonization of accounting standards. C index, which was developed by Archer *et al.* in 1995, along with the I index, introduced by Van der Tas, consisted the two measurement methods of Morris and Parker (1998) in order to present comparative measurable properties. Canibano and Mora (2000) dealt with the process of harmonization of financial accounting within the European Union. The main hypothesis that has been tested was that in spite of the obstacles to the harmonization of regulations in the European Union, there has been greater conformity in the recent years in the accounting practices of companies which operate on the international stage. A trial of C index was suggested, as a method for measuring the importance of the alteration in its value. In particular, they analyzed the financial statements of 85 enterprises from 13 countries, between 1991/1992 and 1996/1997, by focusing on accounting issues (deferred taxation, goodwill, leasing and foreign currency translation). Based on the results, harmonization can be characterized as unplanned and thus it could not be converted into an overall accepted regulation. In accordance with Archer *et al.* (1995), Aisbitt (2001) examined the degree of harmonization of national and cross-national level in the case of the Nordic countries (Denmark, Finland, Sweden, Norway). For the accomplishment of her research, she analyzed C index at four dates during the years from 1981 to 1998. Aisbitt observed discontinuous periods with respect to different combinations of accounting regulations and standards applicable for the relevant period. The principle outcome of the study was the connection among laws, methods and accounting standards, which fluctuates over time between Nordic countries. As a result, a further inquiry is required. Lastly, she suggests that qualitative study may be better than complex statistics. Parker and Morris (2001) tested the level of international harmony for eleven accounting measurement policies in matched pairs of large companies from Australia and the U.K. A number of indices were used in order to determine the degree of international harmony. Such indices were H and C index along with the chi-square statistic test. Based on their results only 3 of the total 11 policies were harmonized.

New Zealand and Australia consisted the basis of the research by Rahman *et al.* (2002). More precisely, accounting rules and methods of these nations were studied in order to assess the level of harmonization. A connection among the degrees of practice and regulation harmonization was revealed. That recommends that the alert should be practiced in intending to accomplish practice harmonization throughout regulation harmonization. Moreover, the function of international auditing seemed to be a significant factor regarding practice harmonization. In 2002, Gariddo *et al.* demonstrated the application of Euclidian distances to the level of formal harmonization reached by the IASC, through the three stages of its life, and by analyzing pronouncements on 20 accounting issues. Results indicated that a reduction of the alternative accounting methods allowed by IASC standards has occurred, and consequently the comparability of financial information has improved. Taplin (2003) argued that H and C indexes are inadequate to measure the level of accounting harmonization because there is a significant difference between an index (H or C) calculated for the sample and an index created for a population.

One year later Taplin (2004) introduced a new index, namely T index, in order to evaluate the level of comparability among the entities financial statements. He investigated previously used indices and suggested that choosing the appropriate way (for measuring harmonization) was based on four criteria: a) the weighting given to companies/countries, b) international focus: overall, within the country, or between countries, c) the treatment of multiple accounting methods and d) the treatment of non-disclosure. T index can be described as the likelihood that two enterprises that have been selected in a random manner have comparable financial statements. In Fontes *et al.* (2005) paper, *de jure* harmonization was measured by three strategies and success accomplished convergence among any two sets of accounting standards in Portugal in the period 1977-2003. At first, they used measurement models based on Euclidean distances. The lower the value of Euclidean distance the higher is the degree of harmonization between the two sets of accounting regulations. The obtained results are difficult to meaningfully interpret. Measures based on Euclidean distances are sensitive in quantitative terms, but not in qualitative terms. Such measures are weak, so they need to be supported by other measures. Secondly, they proposed Jaccard's coefficient, which is able to measure the degree of likeness between two sets of binary observations. The results of Jaccard's coefficient can be interpreted in a dynamic and static sense. The results revealed that the level of convergence between the Portuguese and international accounting standards is achieved in the period 1989-2003 for the 43 analyzed accounting issues. Lastly, they used Spearman's correlation coefficient as a measure of correlation between a set on national accounting regulation and IFRS. The results of their research proved that association and correlation coefficients are better methods for measuring *de jure* harmonization of financial reporting than Euclidean distances. These coefficients can be used as a measure of convergence between different regulations at different points in time or between different countries. Floropoulos (2006) examines the accounting harmonization in a sample of companies with regard to the use of International Financial Reporting Standards (IFRS).

In a sample of 39 (9 listed and 30 non-listed) enterprises, an attempt was made to identify the extent to which the sample companies implemented the new accounting standards. The survey was conducted in 2003 and in the form of a questionnaire which was answered by the accountants of each business. The results of this study showed that experience and knowledge about IFRS is generally poor and that companies are not adequately prepare to implement IFRS in 2003. Another finding was that listed companies tend to comply with IFRS more efficiently and more easily than non-listed companies. The author has also come to the conclusion that large and medium-sized firms tend to comply with IFRS requirements to a greater extent than the smaller companies on the Athens Stock Exchange. Ding *et al.* (2007) studied the differences between domestic Accounting standards and IAS in 30 countries, including Greece, for the year 2001. The researchers used two indications to conduct the survey, absence and divergence. Absence measures the difference between DAS and IAS as the extent to which the rules regarding certain accounting issues are missing in DAS, while covered in IAS. Divergence represents the differences between DAS and IAS as the extent to which the rules regarding the same accounting issue differ in DAS and IAS. Based on the measurement of the first indication, Greece ranked at the first place, meaning that the financial statements of Greek enterprises can be considered as unreliable, and the possibility of manipulation of the accounting results of the Greek companies was increased.

Athianos, (2013) examines the impact of changes in accounting practices for Greece. Having separated the research in three parts analyses: The degree of harmonization of firms with the obligatory disclosures, as they are proposed in IAS's / IFRS's, concluded in an average degree of compliance at 90%. The contingency of the value relevant that estimates the essential effect the book value and the net income, with important modifications in the value relevant of accounting information between 2004 and 2005. The degree of foreseeing the earnings from the financial analysts and the limitation of estimation earnings errors. He concludes a significant improvement in foreseeing the earning and the parallel decrease of errors. Combs A, *et, al* (2014) study the cultural impact of harmonization of the Russian accounting practices with IAS'S. The results show a theoretical view of «Russian culture» which has got an impact in the Russian accounting practices with ΔΠΧΠ.

Methodology and Data

The data obtained through annual reports of sample firms. The sample constituted by 100 companies were listed in Athens Stock Exchange. The basis of our research is constituted from the annual financial reports of Greek Listed companies. As previously stated, the majority of our data has been gathered from the website of Athens Stock Exchange and in case the annual reports were not at our disposal, data were retrieved from the companies' websites. Businesses from the banking sector as well as insurance companies were excluded due to the different disclosures provided on their part. Firms not reporting at all their annual reports either on the website of ATHEX Group or the firm's website were excluded as well. In this particular case, we considered that companies should be excluded because they did not comply with the basic disclosure rules. Furthermore, a wide range of data, from some various sectors of the economy, has been selected in order to accomplish an as much as possible accurate outcome. Our observations span from 2009 to 2015. Consequently, the chosen business reflects an interdepartmental combination from trading and industrial companies which are affected not only from endogenous but also from exogenous factors, according to degree of extroversion of each company. Table below demonstrates the percentage participation per sector of activity.

Table 1. Listed companies per sector (%)

Sector	Frequency	Relative frequency
Technology	13	13%
Travel & leisure	5	5%
Personal & household goods	15	15%
Food & beverage	12	12%
Real estate	6	6%
Health care	4	4%
Construction & materials	12	12%
Industrial goods & services	12	12%
Basic resources	4	4%
Telecommunications	1	1%
Media	3	3%
Oil & gas	2	2%
Chemicals	4	4%
Utilities	2	2%
Retail	5	5%
Total	100	100,00%

MATERIALS AND METHODS

In the accounting harmonization, the relevant variables are two. First, the number of the firms which use every accounting method and second the accounting method that have already been used. More specifically, in this paper the index Herfindahl (H) was used. The index H compares the relevant frequency of accounting methods which are used among firms of the same country of the examined sample. Index Herfindahl for a sample of firms is described as following

$$H = \sum_{I=1}^{N} p_i^{\,2}$$

H= Herfindahl index.
N= number of accounting methods.
P*i*= Relevant frequency on the sample of accounting method

Index H varies between 0 (no harmony) and 1 (complete harmony) among the firms that use the same accounting method. The target of a country is to fulfil the perfect harmony, so as to acquire completely and rightly the directions of adoption that IAS'S impose. In a complete harmony, the whole of the firms converges to the same accounting method. This helps to allow data to be used and compared by both internal and external users. Except of the index H, in literature exist index C and index I. Index H and index C provide harmonization measurements of accounting practices providing information on the frequency of use of the same accounting method or policy. Furthermore, index H is applied on a national level, whereas index-I measure the harmony on an international level. Index C is the ratio for the essential comparability of different accounting methods, including multiple reports and it is described as follows:

$$C = \frac{a_1 \bullet (a_1 - 1) + a_2(a_2 - 1) - a_{12} \bullet (a_{12} - 1)}{m \bullet (m-1)}$$

C=harmonization index of each country
α_1 ,α_2 ,$\alpha_{1,2}$ =accounting reports
m=the number of countries under examination

Index I, as a different version of index H, provides a correct schematic plan of the wideness and level of accounting harmonization among the countries,

Which is described as follows

$$I - Index = \left[\sum_{i=1}^{n} (f_i^1 x f_i^2 x .....x f_i^m)\right] {}^{1}\!/_{m} - 1$$

f_i= relative frequency of method I in country
m= number of countries
n= alternative number of accounting methods

A rising trend of index H will mean the improvement in level of harmonization, decreasing simultaneously the already used alternative accounting methods (the decrease of accounting alternatives is an important target for IASB, assuming in that way the level of harmonization increases). A high price for the index proves the right use of the standards, smooth operation of the edited mechanism and as well as use of financial information. On the contrary, a deceasing in the index will show a dis-harmony, in the sample of firms. This fact will mean that not progress was made and also that there is no success in the adoption of IAS'S / ΔΠΧΠ of the firms is not completely. Therefore, despite trying to succeed a decrease in the number of accounting practices, we face an increase, because the firms have multiple accounting choices. This can lead to a creative accounting and distortion of the real accounting results. In practice, the outcome will be connected to the management that using legally or illegally the combination of the accounting practices mislead users and especially, in larger disharmonies, affect the smooth function of financial and states mechanisms. Afterwards, a comparison of index H between the examined period and the year of first adoption of IAS will be made in order to verify if the adoption of accounting standards has led to a convergence of accounting practices, or the financial crisis, in Greece, has created a "relaxation" in the implementation of standards and mandatory disclosures from both business and audit mechanism. The examined variables focused on implementation of three basic

Table 2. H index of harmonization trend (Financial Statement)

Year	2005	2009	2010	2011	2012	2013	2014	2015
H index	0.8200	0.8362	0.8872	0.9050	0.9050	0.9050	0.9232	0.9050

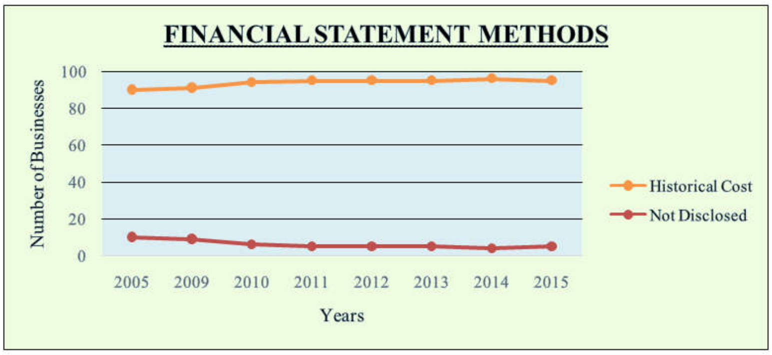

Figure 1. Financial statements methods (2005, 2009-2015)

Table 3. H index of harmonization trend (Depreciation)

Year	2005	2009	2010	2011	2012	2013	2014	2015
H index	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

accounting policies which are: the method of evaluating inventory, the method of choice of depreciation-amortization and the method of preparation of financial statements. According to IAS'S., for the preparation of financial reports of the firm the implemented method must be predefined. Especially for Greece according to the related laws and IAS's 2 the methods of measuring inventory include FIFO, Weighted Average and of Successive Balance. The basic depreciation-amortization methods, as defined in IAS 16 are the straight line and reducing balance. Finally, according to IAS 1, for the preparation of financial statements, the historical cost suggested as for initial recording of any transaction while fair values apply for the rest of useful life. The use of alternative methods, which are not clarified through disclosures has led us to create an alternative option 'other methods' for all examined accounting policies. In addition, firms that do not disclosure any method, is taken into account as non-disclosure. That result affects the H-index as (non-disclosure) it is taken into account as accounting treatment and policy. We claim that, this creates a clearer result of how the accounting practices treated by the firms. As far as the study of French firms the alternative methods to measure inventories, depreciation-amortization and the preparation of financial statements vary. The influences from the Anglo-Saxon Accounting Model, as well as the different tax-business law, they give more choices to one of the categories under examination. The increase in alternatives creates a risk of altering the company's real situation through creative accounting and manipulation of the results. For the study of each country we have created table for each one of these policies,

Including the following

Methods of evaluating inventory: LIFO, FIFO, weighted average, successive balance, low price, other methods and non-disclosure

Depreciation: Amortization Methods: straight method, reducing balance, historic cost, market value, other methods and non-disclosure.

Reporting method of financial statements: costs basis, historic cost, other methods and non-disclosure.

RESULTS

As previously mentioned, the research of this dissertation conducted with regards to the methods that have been used by the companies of our sample. In order to determine the harmonization degree, based on the Herfindahl index, we have developed a series of tables that present the methods that had been applied by the companies during the first year of matadory implementation of IFRSs (2005), and simultaneously the similar tables with the methods that had been applied during the years of financial crisis (2009 – 2015). Starting from the financial statement methods it is noticed a substantial improvement to the H index during the passage of years. In 2005, 90% of the companies prepared their financial statements based on historical cost, while a 10% did not disclose their methods (Appendix B, Table B.4.1). The following years of financial crisis, even more companies started to reveal their financial statement methods (Appendix C, Table C.4.1). As a result, the H index achieved its highest level in 2014 (Table 4.1). Overall, despite the increasing degree of concentration for the adoption of historical cost as the primary measurement basis for preparation of financial statements, some companies were found not to be in compliance with IFRSs. Figure 1 demonstrates the fluctuations of financial statement methods for the years examined. Regarding the depreciation methods, the results are characterized by full uniformity. Straight line method of depreciation is dominant. This method is the simplest to calculate, results in fewer errors, stays the most consistent and transitions well from company-prepared statements to tax returns. The same percentages are meeting where the 100% of the companies use the straight-line depreciation. It is remarkable that by adopting the IFRSs all the companies are applying the same accounting method. This means that there is a total harmonization because the H index equals to one (Table 3). Lastly, concerning the inventories, for the fiscal year of 2005 the majority of the listed companies has adopted the weighted average method in order to evaluate their inventories.

Table 4. H index of harmonization trend (Inventory)

Year	2005	2009	2010	2011	2012	2013	2014	2015
H index	0.5846	0.6206	0.6466	0.6334	0.6474	0.6474	0.6474	0.6344

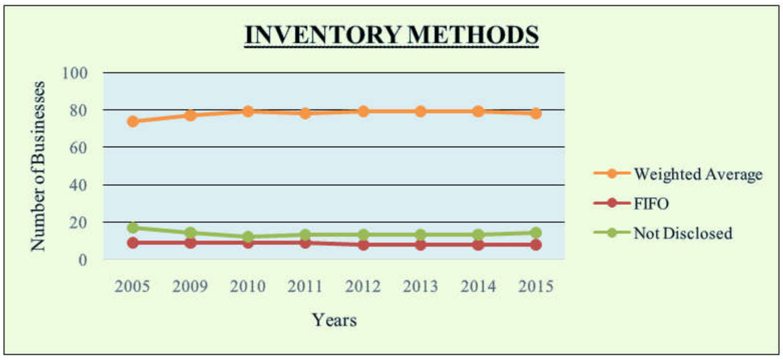

Figure 2. Inventory methods (2005, 2009-2015)

More specifically, a high percentage (74%) of this particular method has been implemented and only a relatively low percentage (9%) of companies used the FIFO method. An important advantage of using weighted average cost instead of the FIFO method is the level of simplicity. Nevertheless, a substantial number of businesses (17%) did not disclose the inventory method used. The examining period of financial crisis indicates a maturity degree regarding the level of harmony which is the primary factor of the adoption of IFRSs. Firms that did not disclose their inventory methods (for example FRIGOGLASS S.A.I.C., ATHENA S.A., and others) have changed their policy and moved towards the weighted average method. Another significant finding was that firms, which during the first implementation of IFRSs were using the FIFO method, insisted on this method till 2015. The advantage of using FIFO method is that it better reflects actual flow of inventories in a company. Only a particular firm (HELLENIC SUGAR INDUSTRY S.A.) decided to change its inventory method in 2012. Overall, ten years after the mandatory implementation of IFRS, a small increase of the weighted average method is depicted (5.41%), while a substantial reduction of firms that did not disclose their methods have occurred (17.65%). The extent of disclosure appears to be improved since 2005. Figure 2 illustrates the intertemporal fluctuation of inventory methods implemented by our sample firms. As a result, the harmonization level is relatively low, reflecting the difficulty of understanding and analyzing the financial statements by potential investors (Table 4). Furthermore, a manipulation degree of the results may be implied, due to the fact that incomplete or false information are provided to the external users of financial statements. According to this as long as Greek businesses continue to conceal their methods, their financial statements can be characterized as unreliable.

Conclusion

This research paper has been deliberately focused on the past three years where Greece is still in economic downturn. In this way, we can draw conclusions on the extent to which the crisis has affected the way in which the financial statements are prepared and handled. In addition, the study of an additional country provides comparability with respect to the level of harmonization between European countries. More specific in this research we dealt with the impact of using IFRSs on the comparability of three basic accounting practices.

In order to measure the *de facto* harmonization, we selected the Van der Tas Herfindahl index since it is very simple, very easy to use and particularly suitable for the measurement of the harmony within a country. Two periods were taken into account. The first period refers to the starting year of the mandatory adoption of IFRSs for all listed companies on the ASE, while the second period comprises the years of financial crisis in Greece. Based on our question about the maturity degree of accounting harmonization from the first year that IFRSs has become compulsory to the recent years of financial crisis, we came to the conclusion that our research indicates a rise in the degree of harmonization regarding the methods used in financial statements and a total harmonization regarding the methods used in depreciation. However, despite the fact that the harmonization level of inventory valuation methods has been increased, the probability of disharmonization still exists, due to the fact that a significant percentage of our sample data continue not to disclose their methods.

The findings of this research become interesting for researchers to conduct similar studies on compliance with mandatory disclosure requirements of IFRSs. In addition, they can attract the interest of professional readers who are studying the mandatory disclosure requirements in accordance with IFRS. In other words, it should be investigated whether or not companies not only adopt but also apply the IFRS correctly. The comparative analysis of the level of disclosure currently provided by Greek listed companies and the level of their presence in the financial statements of companies operating in and outside the European Union would be also an important analysis.

To summarize, in Greece the improvement after the adoption of the International Accounting Standards is clear. However, the same situation in 2005 and today is likely to be linked to the general economic and social situation within the country where it ultimately acts as a deterrent to improving and refining the harmonization effort. Therefore, we cannot ascertain precisely whether the adoption of IAS / IFRS is the only factor in creating a positive trend in selected accounting policies. The reduction of alternatives, led to the use of common accounting policy choices. On the other hand, compared with France where the legitimate provision of an increased number of choices does not drive businesses towards a harmonization of accounting policies.

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