A theoretical framework and perspective regarding the accounting and the technology issues in Greece

Maria Dimitriou*
University of Macedonia, Greece

ABSTRACT

In January 2005, the application of IFRS is mandatory and followed by listed companies in European financial markets included listed companies in Regulated markets in Greece, such as Athens Exchange Securities Market, Athens Exchange Derivatives Market, Electronic Secondary Securities Market. Therefore, the framework of the "accounting treatment" has changed, and it is going to change in the future for all kinds of companies regardless of their size. The main purpose of this research is to investigate the adoption of the IFRS convergence movement in Greece, aiming at emphasizing their philosophical basis and value via an in-depth narrative methodology approach with questions. This study explains some of the different elements and dimensions of the financial reporting in Greece and the using of the Information and Communications Technology as well as the benefits it can provide as a means of knowledge for students and as an important aid to researchers.

Keywords: IFRS, IFRS for SMEs, New Greek Accounting Standards, Greek GAAP, Greek General Chart of Account, Anglosaxon / French and German Model, rule-based and tax-driven principles, stockholder oriented and principles-based standards, Exchanges/Financial Market, Informatics/Information/information and communications technology

* Ph.D. Candidate in Field of Research: Financial Accounting with Information Systems,

Department of Applied Informatics, School of Information Sciences, University of Macedonia, N. Egnatia Str. 156, 54006, Thessaloniki, Greece

E-mail: mdimitriou@uom.gr, mdimitriou@uom.edu.gr, maria.d.dimitriou@gmail.com

Website: https://www.linkedin.com/in/maria-dimitriou-1b238b63/, https://www.researchgate.net/profile/Maria_Dimitriou3

Identifiers: Web of Science Researcher ID Y-7232-2019, ORCID 0000-0002-6153-7122

https://publons.com/researcher/3121758/maria-dimitriou/, https://orcid.org/0000-0002-6153-7122/print

Ένα θεωρητικό πλαίσιο και μια προοπτική όσον αναφορά τα λογιστικά και τα τεχνολογικά θέματα στην Ελλάδα

Μαρία Δημητρίου *
Πανεπιστήμιο Μακεδονίας, Ελλάδα

ΠΕΡΙΛΗΨΗ

Από τον Ιανουάριο του 2005, η εφαρμογή των ΔΠΧΠ είναι υποχρεωτική και ακολουθείται από εισηγμένες εταιρείες στις ευρωπαϊκές χρηματοπιστωτικές αγορές που περιλαμβάνονται εισηγμένες εταιρείες σε Ρυθμιζόμενες Αγορές στην Ελλάδα, όπως στην Αγορά Αξιών του Χρηματιστηρίου Αθηνών, στην Αγορά Παραγώγων του Χρηματιστηρίου Αθηνών, στην Ηλεκτρονική Δευτερογενή Αγορά Τίτλων. Ως εκ τούτου, το πλαίσιο της "λογιστικής αντιμετώπισης" έχει αλλάξει και πρόκειται να αλλάξει στο μέλλον για κάθε είδους εταιρείες ανεξάρτητα από το μέγεθός τους. Ο κύριος σκοπός αυτής της έρευνας είναι η διερεύνηση της υιοθέτησης του κινήματος σύγκλισης των ΔΠΧΠ στην Ελλάδα, με στόχο να δοθεί έμφαση στη φιλοσοφική βάση και την αξία τους μέσω μιας εμπεριστατωμένης αφηγηματικής μεθοδολογίας με ερωτήματα. Η μελέτη αυτή εξηγεί ορισμένα από τα διάφορα στοιχεία και διαστάσεις της χρηματοοικονομικής πληροφόρησης στην Ελλάδα και τη χρήση της τεχνολογίας της πληροφορικής και της επικοινωνίας, καθώς και τα οφέλη που μπορεί να προσφέρει ως μέσο γνώσης για τους σπουδαστές και ως σημαντική βοήθεια για την Ερευνητές.

Λέξεις – Κλειδιά: ΔΠΧΠ, ΔΠΧΠ για ΜΜΕ, Νέα Ελληνικά Λογιστικά Πρότυπα, Ελληνικές Γενικώς Παραδεκτές Λογιστικές Αρχές, Ελληνικό Γενικό Λογιστικό Σχέδιο, Αγγλοσαξονικό/Γαλλικό και Γερμανικό Μοντέλο, αρχές βασιζόμενες σε κανόνες και φορολογικά κριτήρια, προσανατολισμένα στους μετόχους και βασιζόμενες σε αρχές πρότυπα, Ανταλλαγές /Χρηματοοικονομικές Αγορές, Πληροφορική /Πληροφορίες /Τεχνολογία πληροφοριών και επικοινωνιών

---

* Υπ. Διδ. στο Πεδίο Έρευνας: Χρηματοοικονομική Λογιστική με Πληροφοριακά Συστήματα,

Τμήμα Εφαρμοσμένης Πληροφορικής, Σχολή Επιστημών Πληροφορίας, Πανεπιστήμιο Μακεδονίας, Εγνατία 156, 546 36, Θεσσαλονίκη, Ελλάδα

E-mail: mdimitriou@uom.gr, mdimitriou@uom.edu.gr, maria.d.dimitriou@gmail.com

Website: https://www.linkedin.com/in/maria-dimitriou-1b238b63/, https://www.researchgate.net/profile/Maria_Dimitriou3

Identifiers: Web of Science Researcher ID Y-7232-2019, ORCID 0000-0002-6153-7122

https://publons.com/researcher/3121758/maria-dimitriou/, https://orcid.org/0000-0002-6153-7122/print

INTRODUCTION - PROBLEM - SIGNIFICANCE OF THE SUBJECT

Regarding the use of International Financial Reporting Standards (IFRS) as a universal financial reporting language across the globe for business affairs, several countries have implemented IFRS and converted their local Generally Accepted Accounting Principles (GAAP) to IFRS, so that company's financial statements are understandable, relevant, reliable and comparable across international boundaries. According to the six audit firms (Pricewaterhouse Cooper International, KPMG International, Deloitte, Grant Thornton International, Ernst & Young, BDO International), the vision is one single set of high-quality global standards used on the global capital markets.

In June 2002, the European Parliament and the Council (https://europa.eu/rapid/press-release_CJE-05-66_en.htm) approved the regulation, which required publicly-traded companies on European regulated markets to use the International Financial Reporting Standards (IFRS) as the basis for presenting their consolidated financial statements for fiscal years beginning on or after January 1, 2005. Since then, many European countries that require the use of IFRS for the preparation of financial statements of some, or all, of their domestic listed firms. All the listed companies and in some cases, unlisted companies in these countries are required to construct and publish their financial statements according to IFRS. Other countries have plans to converge their local GAAP with IFRS in the future. Consequently, IFRS has substantially contributed to uniformity in financial reporting on a global scale.

Thus, during the last decades, the Institutional and Regulatory Framework around the world has changed significantly, correspondingly, so has the Institutional and Regulatory Framework influence on and importance to Greece. The issue of the firms' reported performance is raised by the conversion of accounting standards from GAAP to IFRS. The distinction between the accounting treatment under IFRS and Greek GAAP is, therefore, central to the research project in this paper.

BACKGROUND TO THE TOPIC/ LITERATURE REVIEW

Finance theory and professional practice propose alternative approaches to the evaluation of a company. In theory, valuation is a relatively simple process of discounting a firm's expected cash flows by investors required rates of return. In practice, valuation is highly complex because there are numerous valuation models and techniques (Rawley and Benton, 2009).

The traditional distinction is between valuation based on the fundamentals of the company (future cash flows, earnings, and so on) and the market ratios approach, which is based on the market multiples of a company. Penman (2001) gives a definition of the fundamental analysis as a five-step process consisting of 1) knowing the business through the strategic analysis; 2) analysing the accounting and non-accounting information; 3) specifying, measuring and forecasting the value relevant payoffs; 4) converting the forecast to a valuation; and 5) trading on the valuation.

Schipper (1991) indicates that knowing how analysts use financial accounting information should make accounting and finance academics more knowledgeable professors and thus more able to teach future students.

According to Damodaran A. (2002), "Discounted Cash Flow model is the foundation on which all other approaches are built upon." Luehrman (1997) states that in the 1970s-discounted cash flow analysis emerged as best practice for valuing corporations. He states that with today's improved computers and data, he states that the Discounted Cash Flow model would work better than ever, but other valuation methodologies improve through this way too. He also states that: Companies will routinely use more than one formal valuation methodology, and the Discounted Cash Flow model will remain the foundation of most formal valuation analyses.

DeFond, M. L., & Hung, M. (2003) investigate the recent trend in analysts disseminating operating cash flow forecasts. They find that analysts tend to forecast cash flows for firms were accounting, operating, and financing characteristics suggest that cash flows are useful in interpreting earnings and assessing firm viability. Specifically, they find that analysts tend to forecast cash flows for firms with

1. substantial accruals,
2. more heterogeneous accounting choices relative to their industry peers,
3. high earnings volatility,
4. high capital intensity, and
5. poor financial health.

These findings are consistent with financial analysts responding to market-based incentives to provide market participants with value-relevant information.

Mear, R., & Firth, M. (2012) attempt to test the relevance of accounting and other market-related information in a risk-assessment task by a laboratory experiment using the Brunswik lens model framework, estimates of ex-ante risk on thirty stocks were regressed against nine company-specific cues and one industry variable. The results provide substantial evidence that publically available accounting and financial data convey information relevant for security risk evaluation.

Penman, S. H. (1998) lays out alternative equity valuation models that involve forecasting for finite periods and shows how they are related to each other. He contrasts dividend discounting models, discounted cash flow models, and residual income models based on accrual accounting. Penman shows that some models that are different yield the same valuation. He gives the general form of the terminal value calculation in these models and shows how this calculation serves to correct errors in the model. Penman also shows that all models can be interpreted as providing a specification of the terminal value for the dividend discount model. In so doing, he shows how one calculates the terminal value for the dividend discount formula. The calculation involves weighting forecasted stocks and flows of value with weights determined by a parameter that can be discovered from pro forma analysis.

Empirical accounting research provides surprisingly little evidence on whether accounting earnings numbers capture cross-sectional differences in risk that are associated with cross-sectional differences in share prices. Baginsk, S. P., and Wahlen, J. M. (2002) address two questions regarding the risk-relevance of accounting numbers:

1. Are accounting-related risk measures (i.e., the systematic risk and total volatility in a firm's time-series of residual return on equity) associated with the market's assessment and pricing of equity risk?
2. If so, then are these accounting-related risk measures incrementally associated with the market's assessment and pricing of equity risk beyond other observable factors, such as those in the Fama and French (1992) three-factor model?

So, they develop an accounting-fundamentals-based measure of the market's pricing of risk—the difference between actual share price and a residual income valuation model estimate of share value using risk-free rates of return. Their results show that both systematic risk and total volatility in residual return on equity partially explain this pricing differential and that the explanatory power of total volatility is incremental to the Fama and French (1992) factors—market beta, firm size, and the market-to-book ratio.

This paper provides a theoretical framework and perspective for the valuation problem, demonstrating conditions for its accounting treatment, and defining its computational complexity using technology for a broader class of companies. The article presents the perspective on the following issues related to the theme and the arguments supporting the author’s position:

- Introduction to Accounting Treatment

- Conditions for one single set of High-Quality Global Standards
- Computational Complexity of Financial Reporting in Greece
- Financial Reporting in Regulated markets
- Information and Communication Technologies in Financial Accounting

PURPOSE – OBJECTIVES

We envision to be understood the cases of accounting frameworks, rules, principles and standards of a research nature analyzing the global adoption of IFRS (benefits and prospects) and the impact of new technologies (proprietary or free and open source accounting software/financial packages) aiming at emphasizing their philosophical basis and value via in-depth narrative methodology approach with questions.

The implementation of IFRS is mandatory from 1 January 2005 and is followed by listed companies on European stock markets, including listed companies in regulated markets in Greece such as the Athens Stock Exchange, the Athens Derivatives Market, the Electronic Secondary Securities Market.

In this way, it is intended to establish the framework of the accounting treatment for the company's financial statements using the information and communications technology as an open challenge.

The paper aims to contribute to further exploration and reflection on the issue in order to explain some of the different elements and dimensions of financial reporting in Greece. Following the approach and the structure explained above, the paper will succeed in contributing to theory.

HYPOTHESIS – QUESTIONS

In this research, we examined the following question:

What has changed, and what is going to change in the future as regards the framework of the "accounting treatment" and the using of the Information and Communications Technology for all kinds of companies regardless of their size?

CONTRIBUTION

The global shift to International Financial Reporting Standards (IFRS) is fundamentally changing the way companies present their business and the way their financial statements are judged by decision-makers. In this paper, we sought to explore the issue of the accounting treatment in Greece and the introduction of new technologies in conjunction with the business environment and applicable accounting rules, principles, and standards that have changed significantly.

Our contribution is a theoretical framework for the accounting treatment of the valuation problem in the way companies present their business and the way their financial statements are judged by decision-makers. There is proof that the problem concerns all kinds of companies, regardless of their size. Law 4308/2014 obliges all companies for the fiscal years beginning after January 1, 2015, to prepare their financial statements based on the Greek Accounting Standards, which are very close to the IAS / IFRS. Other contributions are:

a. the constructive characterization of the research field of the financial accounting with information systems,
b. a valuation model that results in more from the collection, evaluation, and processing of information according to IFRS than was possible with existing Greek GAAP, and
c. an in-depth study of the accounting treatment in Greece and the introduction of new technologies in a business environment as well as the impact of the applicable accounting rules, principles, and standards that have changed significantly.

METHODOLOGY AND DATA

The methodological steps to answer every question illustrated in the questions/hypotheses section include:

First of all, a comparative analysis of the accounting standards applicable to companies in Greece analyzing the global adoption of IFRS (benefits and prospects) and the impact of new technologies (proprietary or free and open source accounting software/financial packages). This analysis has consistently brought the most effective results for the more accurate and complete information to the markets and stakeholders since 2005, with the adoption of IFRS/IAS by the listed companies in the ASE, as well as the application of the New Greek Accounting Standards in non-listed companies from 2015. This was done in order to identify common points in the way of preparing the financial statements and the accounting treatment of their elements.

Secondly, an analysis of the main points of adopting IFRS/IAS convergence movement in Greece with a view to highlighting their philosophical basis and value. We carried out the theoretical perspective of the above-using information and communications technology as an open challenge.

Theoretical and historical background providing by literature and research (see references), IFRS presence, and their characteristics in Greek reality, their impact on the financial statements under Greek GAAP, and the investigation of the most important differences between them were used from a narrative way with questions. Among the main conclusions are the significant needs for the evaluation of enterprises without geographical constraints but also in alternative forms of financing them. This approach involves assessment of a company's financial performance and decision making through its financial statements under IFRS, producing results from this evaluation in the context of valuation.

The methods of research - methodology, epistemology, and ontology - of the paper include, thus, the grounded theory, the narrative study, the examination of associated papers and articles (include questioning, critical discussion, rational argument, and systematic presentation) of the project by experts, all of whom ensuring the scientific character of the work and the validity of its conclusions.

RESEARCH RESULTS, AND DISCUSSION

The many changes in the current world, such as the global adoption of IFRS (with its opportunities, threats, weaknesses and risks) and new technologies (private or free and open-source software for accounting, private or free software financial packages code), give a new philosophical perspective for what is happening and what is going to happen in the future, and the benefits it can provide as a means of knowledge for students and as an important aid to researchers.

In the very near future, there is a strong possibility that Greek GAAP, as they are known today, will cease to exist. Their place will take the New Greek Accounting Standards. Indeed, the adoption of Law 4308/2014 in November 2014 obliges all companies for the fiscal years beginning after January 1, 2015, to prepare their financial statements based on the Greek Accounting Standards, which are very close to the International Accounting Standards / International Financial Reporting Standards (IAS / IFRS).

One single set of high-quality global standards

In Greece, until 1995, there was no systematic attempt to impose an external audit of the financial statements of large private companies. The law 3329/55 introduced in Greek company law the SOL: Body of Chartered Accountants. It is interesting to note that the nature and organizational structure of SOL were proposed to the Greek government by British auditors. Since then, the

disclosure requirements for shareholders and the comparability of accounts led to the idea of applying IFRS.

Ten years ago, IFRS was unknown in the business world of Greece. IFRS, as IAS is now established and known, was initially instituted in 2001 and their design was completed in 2002 with the EU Directive 1606/2002 for their implementation until 1/1/2005 in the consolidated statements of all listed companies (including banks and insurance companies) of its Member States (publishing interim, half-yearly and annual consolidated financial statements) and on 20/3/2002, Greece adopted the regulation by the Law 2992 / 2002 according to the Directive of the EU and similarly to the other EU Member States.

All the listed companies and, in some cases, the non-listed companies in these countries are required to prepare and publish their financial statements under IFRS. The implementation of IFRS is mandatory from 1 January 2005 and is followed by listed companies on European stock markets, including listed companies in regulated markets in Greece such as the Athens Stock Exchange, the Athens Derivatives Market, the Electronic Secondary Securities Market.

In order to enhance the extroversion of Greek companies and to provide more detailed corporate information to investors, the Greek General Chart of Accounts (GGCA) and the Company Law (mainly the Law 2190/1920) are fully harmonized with the Accounting Directives of EU.

The Accounting Standardization and Audit Committee (ELTE) and the Accounting Standardization Council (SLOT), in close cooperation with the Securities and Exchange Commission, offer their services, aiming at the more accurate application of IAS/IFRS in Greece.

The ELTE (Accounting Standardization and Audit Committee) implements the Auditing Accountancy Law. It was established by the Law 3148/2003 (as amended by the Law 4170/2013) and its responsibilities are: to propose to the Minister of Economic issues of Accounting Standardization and Auditing, International Auditing Standards, General Accounting Plan, Sectoral Accounting Plans and International Accounting Standards, as well as their alignment with European Union law and international standards.

The SLOT (Accounting Standardization Council) issues opinions on accounting standardization issues, such as a) The preparation, revision or modification of the GGCA (Greek General Chart of Accounts), with a view to adapting them to developments in science and practice, b) The manner, timing, and process of general or gradual mandatory application of International Accounting Standards by economic units or classes of them, c) The publication of directives on the implementation of the GGCA and the International Accounting Standards.

Computational complexity of financial reporting in Greece

Perhaps the first International Accounting Standards (IAS) in the world were the standards for the next International Financial Reporting Standards (IFRS), as they were the only standards that began and operated in 1973-2001 with sharp criticisms. Thus, International Accounting Standards (IAS) have been enriched with instructions that change the original accounting policy and are now known as International Financial Reporting Standards (IFRS) (as they were renamed the International Accounting Standards (IAS) in April 2001). Thus, the financial statements are prepared under a controlled framework of rules and principles.

The first International Accounting Standard (IAS) was issued by the IASC: International Accounting Standards Committee Foundation, which was established in June 1973 and is based in London (United Kingdom) and was responsible for the development of IAS and their promotion but was replaced by the IASB: International Accounting Standards Board in 2001, which issued the IFRS.

At the same time, there was the SAC: Standards Advisory Council to advise the IASB on the development of standards and information on their impact. Today, the IASB plays the above role. The IASB seeks to understand the IAS so that it can be applied effectively on a global basis. The

IAS is continually revised, taking into account the current situation. Many of these standards were replaced by the new IFRS or withdrawn. Besides, the IASB aims to develop and publish IFRS, including the recent IFRS for SMEs (SMEs), published in July 2009.

The International Accounting Standards Board (IASB) takes into account the accounting standards already adopted, the IAS and the IFRS as well as the draft reporting in each issue, and creates IFRS for worldwide acceptance, trying to harmonize as much as possible methods of different countries. These differences are due to a variety of social, economic, and legal conditions and to the fact that each country takes into account the needs of its resident users when it adopts national provisions.

The standards that are not fully understood by the application have been analyzed with notes and instructions created explicitly by the IASB interpretive body, called IFRIC: International Financial Reporting International Committee (since November 2001) or the previous SIC: Standing Interpretations Committee (1996) in consultation and contact with all operational levels in various organizations. This committee is competent to review and resolve specific accounting issues arising from the current IFRS and to provide guidance on these issues. In other words, the committee issues interpretations called IFRIC's interpretations, and before 2001 they were called SIC's interpretations. Any IFRIC interpretation should then be approved by the IASB (International Accounting Standards Board).

Today, there is a series of 1-41 International Accounting Standards (IAS), of which only 28 are active on 1.1.2015, and 1-15 International Financial Reporting Standards (IFRS) with a series of Interpretations for accounting. While three IFRS (IFRS 9, IFRS 14 and IFRS 15) issued to replace the respective IAS and their interpretations are not yet in force until 1.1.2015.

The IAS and IFRS refer to the purpose, the definitions used, the accounting treatment, the disclosures used, and the effective date. SIC's interpretations and IFRIC's interpretations are very important for verifying the correct application of IAS and IFRS and for avoiding the use of "creative accounting" methods. This reference is necessary in order to highlight the philosophy and logic of the underlying IFRS and, indeed, global trends to implement IFRS.

Both the International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) are the same standards that set rules or accounting treatments for various individual elements or financial statements. IAS are standards issued before 2001, and IFRS are the standards issued after 2001. There were 41 standards called IAS 1, IAS 2, and other. However, several of them were replaced by IFRS or withdrawn.

The SIC: Standing Interpretations Committee and the Interpretations come from the IFRIC: International Financial Reporting Integrations Committee. Interpretations of SIC and IFRIC are interpretations that complement the IAS/IFRS. The SICs were issued before 2001, and IFRICs were issued after 2001. They deal with more specific situations that are not covered by each international accounting or financial reporting standard itself or issues that have emerged since the publication of specific IFRS.

The IFRS fully covers all the principles and rules that, as far as possible, aim at

- fairly displaying various elements, transactions or statements in the financial statements of companies worldwide,
- providing information to internal (such as management, directors) and external users in decision making (such as shareholders, prospective investors, analysts, investors, financial institutions, lenders, creditors, suppliers, public authorities, employees and other users).

At the same time, they promote transparency and comparability between the individual sizes of businesses. Thus, they help to inform the markets and stakeholders better and more fully. The

IFRS is an alternative way of compiling the financial statements and the principles that govern them. The financial statements (under IAS 1) include:

a. the Statement of Financial Position
b. the Statement of Comprehensive Income
c. the Statement of Cash Flows
d. the Statement of Changes in Equity
e. the Notes

The pursuit of an integrated and credible adoption and application of the IFRS, in other words, the new global acceptable accounting framework for the preparation and presentation of corporate financial information, is a selection of central interest in assessing entities around the world, for example:

- Investors who appreciate the entity's ability to pay dividends and, hence, the likely return they will achieve in their investment.
- Employees who appreciate the ability of an entity to provide benefits to them.
- Debt generators who assess the level of security for the amounts borrowed by the entity.
- Suppliers appreciate the probability that an entity will be able to pay for them.
- Customers appreciate if an entity will continue to exist. This is especially important when customers have a long-term engagement or depend on an entity, for example, when there are product guarantees or where special parts are needed.
- State institutions evaluate the overall allocation of resources and, therefore, the activities of the agencies. Besides, information is required to determine future tax policy and to provide national statistics.

All the financial decisions should be based on an assessment of an entity's capacity to generate cash and the timetable and the certainty of its creation. Information on the entity's financial position (balance sheet), performance (from the income statement), and changes in its financial position (from the cash flow statement) provides information to support such decisions.

The characteristics of this information are known as qualitative features. The IFRS Framework, as amended in September 2010, describes two types of qualitative features for useful financial information: fundamental and improved qualitative features.

The IFRS are structured to produce financial statements with relevance and faithful representation. The information must be relevant and faithful to be useful. The conceptual framework identifies comparability, verification, timeliness, and understanding as qualitative features that enhance the usefulness of information that is relevant and faithful. The inclusion of improved quality features should be maximized as far as possible but not necessary. Instead, it is essential that the information presented meets the fundamental characteristics of affinity and faithful representation, as improved quality features alone cannot make the information useful if this information is irrelevant or not accurately represented. Therefore, IFRS contributes in no small extent to reliable and consistent information, responding to users and their information needs.

Let us take it from the beginning: IFRS are the initial ones for International Financial Reporting Standards. Their title reveals their stigma and identity. Their position as a "global language of financial reporting for business issues around the world" has given them an additional burden, at the same time, additional demand from the business world and directly or indirectly stakeholders in the valuation of entities.

The IAS/IFRS is based on the Anglo-Saxon accounting model, while the accounting system in most European countries, including Greece, is based on the French and German models (described in detail in Λουκάς Λ., Βλάχος Χ., 2007). Anglo-Saxon accounting model is based on "finance" and the correct application of IAS/IFRS requires the understanding and application of various economic theories and models (more specifically Λουκάς Λ., Βλάχος Χ., 2007).

The term "international" defines its global identity internationally and is found in contradiction to the "Greek" standards, which have a local basis, as defined by the Greek General Chart of Accounts (as defined by Presidential Decree 1123/1980) and is based on the Franco-German General Chart of Accounts of 19711971 (more specifically in Γρηγοράκου Θ. Γ., 2008), the Code of Company Law (the provisions of articles 42a and 43c of Codified Law 2190/1920 referred to " Society Anonymous"), the Capital Market Commission and the Tax Laws (more specifically in Νεγκάκης Χ., 2012).

The Generally Accepted Accounting Principles (GAAP) is a term that has emerged over the last decades and concerns "all accounting regulations" from wherever they come from, e.g., regulations deriving from:

a. local (national) corporate law
b. national and international accounting standards
c. requirements of local (national) stock exchanges and capital markets.

The term GAAP may or may not have legal force or legal definition, depending on the country in which it is used, e.g., in Great Britain has no legal force, while in the United States, it has. The term GAAP is a dynamic term that continually changes as circumstances change due to new laws, standards, and practices.

For the term "Financial Information" it means providing financial information about an entity to external users that helps them make financial decisions and evaluate the performance of an entity. Typically, this information is available annually, semi-annually, or quarterly and is presented in forms adopted or approved by governments and other regulators in each local jurisdiction. Sometimes, the term is translated into Greek as "information," as "reference," as "presentation" and sometimes as "report" (more detailed in Λουκάς Λ., Βλάχος Χ., 2007).

In other words, the term increases their usefulness in providing information to a range of users (eg shareholders, institutional investors, creditors, and other users through the financial statements of entities that are prepared on the basis of accounting principles, methods, regulations, and policies of IFRS) when making the appropriate financial decisions.

Financial reporting in regulated markets

The Concept Framework for Financial Reporting sets out the fundamental principles for IFRS amended in September 2010. It includes the objectives of the financial statements, the underlying assumptions used in the IFRS, the qualitative characteristics of the financial statements, the financial statements, recognition of financial statements, statements and concepts of capital and maintenance. At the same time, through this framework, IFRS promotes transparency and comparability between different business sizes (the full text of the framework can be found at www.ifrs.org). This will help to better and better inform the capital markets and stakeholders.

In Greece, the regulatory framework of accounting is the sole responsibility of the Greek state. Accounting legislation in Greece stems from the:

1. Greek General Chart of Accounts and the corresponding Branches, which is the responsibility of the Ministry of National Economy.
2. Codified Law 2190/1920 (on Societies Anonymous), which is the responsibility of the Deputy Minister of Commerce.

3. Opinions of the National Accounting Council, accepted by the Minister of National Economy.
4. Tax Law, which is the responsibility of the Minister of Economics.

The European Union published in 2009 specific SME standards, IFRS for SMEs, recognizing the importance of Small and Medium Enterprises, another change in the business environment, taxation, and accounting that will require programming and focus from the affected companies in the global economy.

Thus, IFRS is not just a case of some multinational companies, but SMEs. The assessment of the harmonized financial statements under IFRS will help to draw definite conclusions about the overall financial situation of SMEs in order to make appropriate investment decisions from internal and external investors as well as from financial institutions with direct beneficial consequences mainly on the financing of small and medium-sized businesses for their development and growth.

For companies that are not required to comply with IAS/IFRS, Greek Accounting Standards, which are a simplified version of IFRS, have been introduced by Law 4308/2014 and contain the following:

- Chart of accounts
- Defining concepts
- Types of entities subject to different obligations set by the Greek Accounting Standards, according to criteria: the average number of employees, total assets, and net turnover.
- Accounting records (Accounting data: transaction and event documents, Accounting books) and how to keep them
- Prepared financial statements by business category

Main differences in the preparation of the financial statements under the Greek Accounting Standards and the International Financial Reporting Standards

The following tables present some of the main differences between the GAS (Greek Accounting Standards) and the IFRS: a) on prepared financial statements /consolidated financial statements, and b) in a different accounting treatment of certain cases and events (balance sheet items, Income Statement, and Profit Distribution Table) (described in detail in Αληφάντης Γ. Στ., 2015 and Κοντός Γεώργιος Κ.Α., 2015).

Table 1. The main differences between the Greek Accounting Standards and the International Financial Reporting standards on prepared financial statements

THE MAIN DIFFERENCES ON PREPARED FINANCIAL STATEMENTS		
	Greek Accounting Standards	**International Financial Reporting Standards**
Profit Distribution Table	• The disposal table is prepared as a separate part of the Financial Statements. • There is no obligation to compile the results table on a consolidated level.	• There is no disposal table. • The corresponding information is partly derived from the Statement of Income and partly from the Statement of Changes in Equity. • The parent is required to prepare a consolidated Statement of Changes in Equity.
Statement of Income	• There is no Statement of Income.	• The results are more concise and result in the after-tax result transferred to equity.
Table of Changes in Equity	• No corresponding table is produced. • It is partially subtracted from the Profit Disposal Table.	• It is mandatory. • It shows the changes in Equity during the Use (Increase of Capital, Grants, Adjustments) and at the end of Use through the distribution of the Results.

Statement of cash flow	• It is compiled only by the listed companies in ATHEX.	• Shall be prepared on an individual and consolidated basis.
Balance sheet	• The balance sheet is provided.	• It provides a much more concise Balance sheet.
Appendix	• It is quite concise. • Its content is determined by C.L. 2190/20.	• Notes to the financial statements are replacing the Appendix to the GAS. • It provides extensive analysis and information on the financial data in order to fill in the gaps that the Balance Sheet and the Income Statement. • They are the most important element of the financial statements.
Consolidation differences	• They are presented in Assets and are amortized in accordance with the provisions of the Tax Legislation, deducted from Equity.	• The amortization of the difference should not exceed 20 years, and the amortization time horizon is reassessed at the end of each use.

Table 2. The main differences between the Greek Accounting Standards and the International Financial Reporting standards in different accounting treatment of certain cases and events (balance sheet items, income statement, and profit distribution table)

THE MAIN DIFFERENCES IN A DIFFERENT ACCOUNTING TREATMENT OF CERTAIN CASES AND EVENTS (BALANCE SHEET ITEMS, INCOME STATEMENT, AND PROFIT DISTRIBUTION TABLE)		
	Greek Accounting Standards	**International Financial Reporting Standards**
Inventories	• Two valuation methods were applied: FIFO and LIFO and weighted average cost (WAC). Note that the use of LIFO is not allowed.	• They are valued at the lower of cost and net realizable value (IAS2).
Multiannual Depreciation expense	• Specific expenses are recognized in the balance sheet rather than in the income statement and are amortized either directly or within five years.	• The designation of expenses as multiannual amortization is permitted under strict conditions, the observation of which is reviewed each time financial statements are prepared.
Taxes	• Income tax, non-embedded taxes on operating costs, and tax audit differences are shown in the Disposable Income Statement. • No deferred tax is calculated.	• The tax is considered an expense and is presented in the Income Statement. • A deferred tax liability or asset is calculated.
Deferred taxes	• There were no deferred income taxes. • Each time the direct taxes payable was considered.	• If there is a difference between the tax and the IAS statements, deferred taxes should be recognized.
Tangible Assets	• The readjustment of the property value, as well as the depreciation rates of the fixed assets, are imposed by the Tax Legislation. • Depreciation was determined by tax law or as a percentage or within two percentages. • Adjustments in the value of fixed assets were made every four years for land and buildings only, based on statutory rates. • The difference in the revaluation of the fixed assets was transferred to equity and then obligatorily capitalized. • There was a distinction between "in" and "out" exploitation, which was practically non-discriminatory.	• The enterprise uses values to adjust the value of its property (alternative method) and depreciates its assets based on their estimated useful lives. • The useful life of the fixed assets is determined by the management and communicated through Notes. • The annual depreciation is lower than that of the GAS, but of course, it lasts longer. • All asset adjustments can be made annually based on a valuation report from a professional valuer. • The revaluation difference, if positive, is transferred to a reserve. If negative, it is offset by a previous reserve if it exists or to the extent that it exists, and the difference is transferred to the results. • Fixed assets are classified as "Operating" and "Investing". • Investments are defined as those assets that are not used for the main subject of the company or are leased to third parties. • Investment assets must be valued annually, and valuation differences, positive or negative, are transferred directly to the results.

		• The revaluation difference is transferred to operating assets in reserve, while for the investment in the results.
Intangible fixed assets	• Certain costs, which would presumably generate inflows over a long period of time, could be capitalized. • The most common was "installation costs" and "reorganization costs". • It leads to a reduction in results when such costs are incurred and does not allow for undue accumulation. • A series of intangible assets (permits, rights, etc.) were characterized as "intangible assets".	• These cannot be capitalized with IAS. • In use, the results are burdened. • The cost of acquiring immovable assets should be added to the total cost of the acquired asset and amortized on the basis of the amortization rate. • Interest is also potentially added to the cost of the asset and can be depreciated at amortized cost. • The depreciation of fixed assets takes place over a period much longer than that of the fixed costs. • Fixed assets as intangible assets have to meet specific criteria, which are re-examined in each use.
Interest on Construction Period Loans	• They appear in the category "Installation costs" in the Balance Sheet and are depreciated within five years.	• Basic method: Impact of results. • Alternative Method: Incorporation in the cost of acquisition of fixed assets and depreciation based on the useful life of the asset.
Government grants	• They are presented in Equity and are depreciated in proportion to the amortization of the asset to which they relate.	• They appear either in a transitional account as Next Year Income (basic method) or deducted from the acquisition cost of the asset (alternative method).
Asset Grants	• Grants were transferred to equity and amortized, as well as corresponding fixed assets, to the benefit of inorganic revenues.	• Subsidies are transferred to passive liabilities and are depreciated for each user according to the fixed asset.
Extraordinary Results	• There are many categories of expenditure and revenue that fall under the category of extraordinary results.	• This item only records the results of truly exceptional events (earthquakes, fires, etc.).
Leasing	• Fixed assets under finance leases were not shown in the balance sheet.	• The Leasing is treated as long-term debt. • By acquiring the fixed assets, the assets are charged with their value and a long-term liability is credited to Leasing. • From rents, the portion of interest payable does not burden the results but reduces the liability. • Fixed assets are amortized, and their value is readjusted as for other assets. • Every year the use is also charged with the interest and the expense of the "long-term" loan, which is now considered Leasing.
Sale and Leaseback	• When Sale and Leaseback were made at a value much higher than the net book value of the assets, the resulting difference was a profit (total or a significant portion) and improved the results.	• This difference is not considered again but is transferred to a transitional liability account and is "amortized" during the Leasing contract.
Participations	• When buying a non-listed company, it is recorded in the books at its cost.	• The valuation was made to the smallest price by species, between acquisition and current. • The valuation was made to the smallest price by species, between acquisition and current. • The positive difference is usually transferred to a reserve. The negative is offset by a reserve if it exists or transferred to the results. • Valuation is made on the day of purchase at current prices of all sub-items of the purchased item, and the proportion that corresponds to it is also recorded cost of acquisition in account 18.

		• The difference between debit or credit is considered to be "goodwill" • If goodwill is debt, it remains in the balance sheet and is not depreciated. • If it is a credit, it is transferred to profit or loss in the period in which the purchase was made. • At the end of each year, the total valuation of the participants must be made. • If it is greater than the acquisition cost (account 18) plus goodwill, no recording is made. • If lower, the amount of goodwill is reduced accordingly.
Securities	• They were mimicked by the smallest item by a value between the acquisition and the current value.	• The trading book is valued at current prices and the differences are transferred to the results.
Long-term receivables or liabilities	• They were displayed at their cost, even if they included interest.	• If they contain interest, they must be discounted to present values based on their expected flows.
Construction projects	• Normally, the revenue invoiced, and the cost of the invoiced revenue was considered as revenue.	• The total profitability of the project is calculated. • The realized portion is accounted for as revenue and as a cost the proportion of total cost in this section based on the total budget of the project.
Activity Breakdown	• The information provided at this level was in the Appendix and rudimentary.	• Extensive information should be provided in Notes. • For each activity area, but also for each geographical area of activity.
Errors and Changes	• If significant revenues or expenses were incurred in respect of previous years and therefore related to errors, when compiling the financial statements then these amounts were shown in the non-organic results.	• These amounts of errors do not affect the results of the financial year, but the prior years' financial statements are adjusted, and the previous comparable use is restated.
Provisions for staff	• Provisions were made for staff reimbursements based on a percentage of the total eligible compensation.	• They attach great weight to these obligations, the provisions for compensation. • They are calculated by an actuary and forecasts are to be made on the basis of an actuarial study and for any other obligation to the staff.
Affiliated parties		• Significant importance is attached to transactions with "affiliated parties". • The concept of "affiliated parties" is very broad. • The information is difficult to obtain at the group level, but this information is important due to the events that have happened to groups here and internationally.
Distribution	• Income tax was recorded in distribution, tax audit differences and the remuneration of the Board of directors' members, were presented in the distribution after the results before tax. • Dividends on the Board of directors' proposal, before deciding on the general counsel, appeared in the distribution and liabilities. • There were several reserves in the distribution provided by commercial or tax law.	• These amounts are regarded as expenses and are recognized in the income statement. • Dividends are shown in equity until the General Meeting decides. their distribution and, once it has been decided, is transferred to the obligations. • The total amount transferred to equity is presented in the income statement.
Discontinued activities	• This concept did not exist.	• When it is decided to discontinue operation, all its assets are derecognized at liquidation prices and are shown by a number, in assets, liabilities, equity, and results.

		• Similar is the practice of fixed assets that are decided to be divested.
Equity	• Net equity was mainly affected by the distribution of results, capital increases or decreases and, in very few cases, other causes (grants, real estate revaluation).	• There are many cases where direct equity bills move without affecting the results.

The framework of information and communication technologies in financial accounting

In recent years, the concept of information and communications technology has changed into information systems and information technologies. Today's society relies heavily on technology. Businesses worldwide are investing in IT systems and telecommunication equipment to take advantage of these new technologies.

In the time of the "explosion of information", financial accounting with information systems can be defined as "the science dealing with the collection, evaluation, and processing of information resulting from the preparation of financial statements of entities". In this case, information systems help to effectively manage and make decisions in a constantly changing and competitive environment.

In the above context, the development of accounting software and financial packages for effective decision-making has become particularly important. The above is not limited to the use of proprietary software but alternatively to the use of free and open-source software. Their use in business depends on the type, size, business needs, volume of data, type of data management requirements, and other factors.

In the area of the free and open-source software, there is a growing interest and optimistic evidence of future growth, especially for small and medium businesses, as they usually do not have financial and other resources to acquire and maintain a "traditional" ERP to adapt to the rapidly changing market conditions.

Examples of accounting software /financial packages based on FOSS/FLOSS

In the area of the free and open-source software displayed last increased interest and there are optimistic signs for future development, especially for small and medium-sized enterprises as they usually lack financial and other resources for obtaining and maintenance of a "traditional" information system ERP, so that they can adapt to rapidly changing market conditions. There are many types of Accounting Software/Financial Packages, and they vary widely. Three of them, described below:

1. **Compiere/Adempiere.**

One of the most important open source ERP projects, Compiere (and the recently created fork Adempiere) are complete and sophisticated mid-tier ERP systems (http://www.compiere.com/company/index.php, http://adempiere.red1.org/). Among the features:

Standard and Customizable Financial Reports - Generate standard financial and managerial reports, including Balance Sheet, Profit and Loss, Statement of Cash Flows, and many others. Additional reporting options include customizing reports with Compiere's internal report writer, data access using the choice of third-party report writers, or data exports for analysis in spreadsheets or OLAP tools.

Comprehensive Financial Management - Compiere offers comprehensive financial management capabilities. All functional elements of Compiere are global-ready, supporting the complexities of businesses that span multiple organizations, currencies, accounting schema, tax laws, and languages.

Customer-specified Chart of Accounts - At the heart of every financial accounting system is a chart of accounts.

Accounting Rule Enforcement to ensure balanced accounting entries and overall system integrity. An example of a base rule is that the system will reject an entry if the accounting date is in a closed period.

Tax Calculation and External Reporting - Most tax entries are created by the transaction. Compiere calculates, manages and applies multiple taxes (e.g. GST/PST) as well as a local tax. Tax rules create correcting tax entries for Sales Tax and VAT systems. Compiere automates the preparation of reporting to external tax agencies.

Banking Relationship Management and accounts. Compiere supports the import and export of bank statements using OFX, IFX, and SWIFT formats.

Quotations - Compiere provide for the creation and printing of customer quotations based on general or customer-specific price lists. Quotations can be made "binding," in which case they reserve inventory. Quotations may also be modified at any time and can be automatically converted to a Sales Order without additional data entry.

Sales Orders - A Sales Order is the "fulfillment control document" that is the foundation for generating Sales Orders, shipment, and invoicing documentation. Besides, Vendor Purchase Orders may be created automatically for the items specified on a sales order and directly shipped to the customer if appropriate. Different types of sales orders cause different business process behavior in Compiere. For example, a"Prepaid Order" will not allow shipments until payment occurs. A "Point of Sale" order assumes the customer is at the counter with the goods in hand and generates all transactions, including stock decrement, invoicing, and payment through the entry of a single document. A "Standard Order" by comparison will check availability before accepting the order, then queue the order for fulfillment by the warehouse and then generate an invoice in the next invoice run or otherwise under the invoice rules for that customer. Compiere supports the following Sales Order Situations: Standard order, POS order, credit order, warehouse order, prepay order, RMA.

Shipments - Based upon the details captured on the Sales Order, one or more shipments can be generated immediately or automatically when inventory subsequently becomes available. Compiere automatically backorders unavailable items. Compiere can be configured to allow shipments to be affected by the shipment documentation or provide for a more disciplined warehouse approach by requiring explicit confirmation of picking and /or shipment prior to the generation of invoice documentation. Confirmations can be used to manage movements of inventory from, say, a receiving area to 'put away' areas from which it then becomes available for further processing. Other specific functionalities:

- product catalog
- price-lists
- bill of materials
- distribution and multi-warehouse control
- material receipts, replenishment
- costing of products and services
- material receipts, vendor invoices
- CRM, sales management, customer tracking, customer profitability analysis
- integrated e-commerce
- point of sale
- integrated reporting

Several extensions and plugins exist, for example, the Libero manufacturing customization (adds MRP, CRP, shop floor control, capacity control) or localized master structures for individual countries' balance codes.

2. OpenBravo

Openbravo (http://www.openbravo.com/) is an open-source ERP solution designed specifically for the SME (small to midsize firm). Developed in a web-based environment, it includes many robust functionalities which are considered part of the extended ERP: procurement and warehouse management, project and service management, production management, and financial management. It supports:

Procurement management: Purchase planning, based on production necessities, keeping in mind minimum stock levels, goods receipts dates, and pending requests, Purchase orders. Rates applications: prices, discounts, and price limit controls. Warehouse control of goods pending receipt. Correction of orders. Creation of purchase orders from sales orders. Refunds to the vendor. Receipts. Automatic creation from pending order lines. Automation of incoming goods (location according to priority). Refunds to the vendor (according to stocks). Cancellation of delivery notes. Purchase invoices. Application of rates: prices, discounts, and control of price limit. Automatic creation from order lines or delivery note lines pending invoicing. Invoicing of goods processed in consignment. Cancellation of invoice (leaving pending for invoicing the associated documents). Relationship between orders, delivery notes, and invoices. Expense Invoices. Massive printing of documents. Purchasing order reports, vendor invoices.

Warehouse management: Management of bundles in warehouses, Restocking control, Traceability configurable by-product, Movement among warehouses, Picking strategies (according to stock, with rules of priority by expiry, location, etc.), Physical inventory, Inventory planning, Continuous inventory, Reports of movements, tracking, stock, arrivals/departures, expiry, inventories, locations, Personalized reports.

Project and service management: This functionality is orientated towards companies whose activities are based on the delivery of projects and services. With relationship to projects, Openbravo allows for the management of budgets, phases, tasks, expenses, and purchases related to each individual project. These projects may be related to monitoring construction projects or even sending out and sales and purchase related requests. The service component permits companies to define services and resources and control all activities. These activities may or may not be billable, for internal or external customers, and be monitored for incurred expenses at a detailed level. Functionalities: Project types, phases, and tasks. Expenses associated with a project. Made-to-order projects and generation of sales orders from templates. Construction projects. Invoice to origin (by project). Rates by the project. Budget report. Tracking of actions regarding budget estimates. Generation of purchase orders. Project reports. Resources. Register of services. Internal expenses. Invoicing of expenses. Invoicing of services. Levels of service. Activities report.

Production management: Plant structure, production plans, BOM's, MRP, manufacturing orders, job reports, costs of production, work incidences, preventive maintenance types, etc. The production functions and plant management in Openbravo allow a complete shaping of the productive structure of each organization (sections, cost centers, and work centers) as well as the relevant data for production: production plans (operation sequences), and products used to make one another.

Financial management: The financial management functionality provided by Openbravo is designed to minimize manual data input on behalf of the user, thereby freeing them from tedious, routine tasks and allowing greater focus on other, more value-added tasks. This increase in productivity is due to the financial department acting as a collector of all the relevant actions generated from the other management departments. This occurs in such a way that these have an

automatic reflection in the general accounting, in the accounts receivable and accounts payable as soon as they are produced. The module covers accounting, receivables and payables, assets, amortization.

Business intelligence: Nowadays, business organizations handle a great deal of data in the practice of their business activities. This does not necessarily mean that they have available to them the necessary information for the management of their enterprise.

Information for decision-making.

3. PostBooks.

PostBooks is a full-featured, fully-integrated accounting (http://www.openmfg.com/postbooks), ERP, and CRM system, based on the award-winning OpenMFG ERP Suite. Built with the open-source PostgreSQL database, and the open-source Qt framework for C++, IT industries. It includes the following modules:

- Accounting (general ledger, accounts receivable and payable, bank reconciliation, financial reporting)
- Sales (quotes, order entry, sales reporting, shipping)
- CRM (universal address book, incident management, opportunity management, to-do lists, project management)
- Purchasing (purchase orders, receiving, vendor reporting)
- Product Definition (items, infinite-level bills of material)
- Inventory (multiple locations, other advanced warehouse features)
- Light Manufacturing (work orders, strong support for make-to-order)
- OpenRPT open source report writer

CONCLUSION AND FUTURE WORK

Financial statements under IFRS are designed to meet the common needs of a wide range of users and therefore are not tailored to the needs of any particular user group. Thus, the need to adopt common rules on the preparation and presentation of financial statements becomes imperative, as the advantages are many in comparison with the local GAAP period in Greece. Furthermore, IFRS for SMEs and the New Greek Accounting Standards must take into account the results of IFRS in the way financial information is provided in terms of business, the full access in information and their assessment on improving the ability of investors to make investment decisions, while the companies have increased access to international markets and reduced the cost to obtain funds. The findings also suggest that assessing the firm's financial performance through its financial statements under IFRS is a crucial stage in the financial information used to generate valuations and stock recommendations.

The article formalized the accounting treatment of the valuation problem. It showed that the problem is fundamentally computationally hard. It constructively characterized regulated markets. It provided the applied research in comparing the accounting frameworks that evaluate a broader class of companies than previous approaches could evaluate, to shed light on common points in the way in which their financial statements are prepared, and their data is treated in them, including their philosophical basis and value.

Originality / Value

We consider the original points of the paper to be 1) the adoption of IFRS and 2) the Information and Communications Technology, as well as 3) the tools to improve the quality of the education and the learning in accounting. The results of the applied research in comparing of the accounting frameworks of different companies were analyzed to shed light on common points in the way in which their financial statements are prepared, and their data is treated in them, including their philosophical basis and value.

Future Extensions – Proposals

An ongoing flow of changes in accounting standards is expected in the coming months and years, so the future extension of the study will need to be renewed regarding IFRS and IAS. In addition, in recent years, the concept of information and communications technology has changed into information systems and information technologies, while the free software on accounting and the specialized software packages on finance begin to be used for educational purposes. The findings suggest that future research should look at some applications with this software. We hope that researchers working through this research will begin to understand the accounting treatment from the Greek GAAP to IFRS and use the Information and Communications Technology.

ACKNOWLEDGMENT

This research was published, presented, and discussed at the 26th Annual Conference of the Multinational Finance Society. It is a postprint. The implementation of the Ph.D. thesis or related research papers was supported by the State Scholarships Foundation-IKY (seventeen months). The participation with research paper to the scientific conference is pending by the University of Macedonia's Unit of Special Account for Research Funds-ELKE followed by the decision of the Faculty Assembly. The planning and presentation of the Ph.D. Thesis supervised by 3-faculty member advisory committee (1. assoc. professor Stavropoulos A.-supervisor, 2. assist. professor Dassilas A. who replaced professor Negakis C. who replaced professor Vazakidis A., 3. professor Refanidis I.) with four annually and five quarterly progress reports. The Publishing House Diplografia provided the support that was the books on financial accounting, consolidated financial statements, and end-of-year accounting tasks according to the Greek Accounting Standards. The European Financial Management Association, the Multinational Finance Society, and the Hellenic Finance and Accounting Association provided the support that was Tutorial Sessions, Panel Sessions "Improving Research in Accounting and Finance", Keynote Speeches, and Discussion Sessions at their Conferences. Participants at the conferences of the Multinational Finance Society (assoc. professor Chima Mbagwu - Wilfrid Laurier University, Canada, assoc. professor Ozge Uygur - Rowan University, USA, professor Mine Aksu - Sabanci University, Turkey, Ph.D. cand. Grace Essien - University of Leeds, United Kingdom, assoc. professor Krzysztof Jackowicz - Kozminski University, Poland, professor Callen Jeffrey - University of Toronto, Canada, professor Theodoros Sougiannis - University of Illinois, USA, professor Martikainen Minna - Hanken School of Economics, Finland, lecturer Anestis Ladas - University of Macedonia, Greece), at the conferences of the Hellenic Finance and Accounting Association (professor Georgios Papanastasopoulos – University of Piraeus, Greece, professor Vasilis Filios - University of Patras, Greece, lecturer Athanasios Tsagkanos - University of Patras, Greece), and at an international conference (professor Christos Negakis - University of Macedonia, Greece who indicated the attendance of the Conference entitled "13th HFAA" with special panel sessions: "Improving research in finance and accounting"), provided the written reports or discussions on the author's previous research papers. Reviewers in the Multinational Finance Journal (professor Theodossiou P. - Editor-in-Chief and the Referees) provided the written reports on the author's previous research article after invitation.

REFERENCES

Αληφάντης, Γ. Στ. (2015). *Χρηματοοικονομική Λογιστική*. Αθήνα: Εκδόσεις Διπλογραφία.

Αληφάντης, Γ. Στ. (2015*). Ενοποιημένες Οικονομικές Καταστάσεις*. Αθήνα:Εκδόσεις Διπλογραφία.

Αληφάντης, Γ. Στ. (2015). *Λογιστικές Εργασίες Τέλους Χρήσεως*. Αθήνα: Εκδόσεις Διπλογραφία.

Βαζακίδης, Α., Σταυρόπουλος, Α., και Χατζης, Α., (2010). *Λογιστικό Σχέδιο-Μηχανογράφηση Λογιστηρίου*. Θεσσαλονίκη.

Βλάχος, Χ., και Λουκάς, Λ. (2009). *Διεθνή Λογιστικά Πρότυπα*. Αθήνα: Εκδόσεις Παπαζήση

Γρηγοράκου, Θ. Γ. (2008). *Ανάλυση-Ερμηνεία του Ελληνικού Γενικού Λογιστικού Σχεδίου (Γενική και Αναλυτική Λογιστική)*. Αθήνα: Σάκκουλας.

Καραγιώργος, Θ., και Πετρίδης Α. (2006). *Εφαρμογή των διεθνών λογιστικών προτύπων (Δ.Λ.Π.) σε συνδυασμό με το γενικό λογιστικό σχέδιο, Θεωρία και πράξη*. Θεσσαλονίκη: Εκδόσεις Γερμανός.

Καραμάνης, Κ., και Παπαδάκης Β. (2008). *Η Εφαρμογή των Δ.Λ.Π (ΔΠΧΠ) στην Ελλάδα. Επιπτώσεις για Ελεγκτές, Λογιστές, Επιχειρήσεις και Εποπτικές Αρχές*. Αθήνα.

Κοντός Γεώργιος, Κ.Α. (2015). *Χρηματοοικονομική Λογιστική, Σύμφωνα με τα ΔΛΠ και τα ΕΛΠ*. Αθήνα: Εκδόσεις Διπλογραφία.

Λουκάς Λ., και Βλάχος Χ. (2007). *Διεθνή Λογιστικά Πρότυπα*. Αθήνα: Εκδόσεις Παπαζήση Globaltraining.

Νεγκάκης, Χ. (2012). *Επιχειρήσεις Λογιστική-Θεωρία και Πρακτική*. Θεσσαλονίκη: Εκδόσεις Σόφια Σ.Α..

Ντζανάτος, Δ. (2008). *Δημιουργία των σημειώσεων (notes) των οικονομικών καταστάσεων και έλεγχος της πληρότητας τους*. Αθήνα: Εκδόσεις Καστανιώτη.

Ντζανάτος, Δ. (2008). *Τα διεθνή λογιστικά πρότυπα με απλά λόγια και οι διαφορές τους από τα ελληνικά*. Αθήνα: Εκδόσεις Καστανιώτη.

Artikis, G. P., Ballas, A. A., Skoutela, D., & Tzovas, C. A. (2010). The relevance ofIFRS to an emerging market: evidence from Greece. Managerial Finance.

Damodaran, A. (2002*). Investment Valuation: Tools and techniques for determining the value of any asset*, 2nd Edition. New York, USA: John Wiley & Sons.

Fridson M., και Alvarez F. (2002). *Financial Statement analysis*. New York, USA: Wiley & Sons, Inc.

Gleeson-White J. (2015). *Διπλογραφία Πως οι έμποροι της Βενετίας δημιούργησαν τα σύγχρονα χρηματοοικονομικά*. Αθήνα: Εκδόσεις Διπλογραφία.

Kenneth, C., Laudon, J., and Laudon, P., Μετάφραση: Κατσαντώνης, Γ., Κωστάκης, Δ., Επιμέλεια: Μάνθου, Β. (2009), Πληροφοριακά συστήματα διοίκησης. Αθήνα: Εκδόσεις Κλειδάριθμος.

Rawley, T., & Benton, E., G. (2009). *The Valuation Handbook: Valuation Techniques from Today's Top Practitioners*, 9th Edition. New York, USA: Wiley & Sons, Inc.

Robinson, T. R., Greuning, H. van, Henry, E. and Broihahn, M. A. (2009). International Financial Statement Analysis. New York, USA: Wiley & Sons, Inc.

Abdulkadir, M. (2012). Adoption of International Financial Reporting Standards in Developing Countries: The Case of Nigeria. *International Journal of Business and Management*, 7(3): 152-16.

Achanga, P., Shehab, E., Roy, R. & Nelder, G. (2006). Critical success factors for lean implementation within SMEs. *Journal of Manufacturing Technology Management*, 17(4): 460-571.

Al-Johani, A.A. & Youssef, A.E. (2013). A framework for ERP systems in SME based on cloud computing technology. *International Journal on Cloud Computing: Services and Architecture*, 3(3): 1-14.

Baralexis, S. (2004). Creative accounting in small advancing countries; The Greek case. *Managerial Auditing Journal*, 19(3)

DeFond, M. L., & Hung, M. (2003). *An empirical analysis of analysts' cash flow forecasts.* Journal of Accounting and Economics, 35(1): 73-100.

Gabriele, G. (2010). IFRS Adoption in the EU, Accounting Harmonization and Markets Efficiency: A review. *International Business & Economics Research Journal*, 9 (12):99-11.

García-Meca, E. & Martínez, I. (2007). The use of intellectual capital information in investment decisions: An empirical study using analyst reports. *The International Journal of Accounting*, 42 (1): 57-81

Galani, D., Gravas, E. & Stavropoulos, A. (2010). The Impact of ERP Systems on Accounting Process. *Journal of World Academy of Science, Engineering and Technology*, 66: 418-423.

Ikpefan, O. A. & Akande, A.O. (2012). International Financial Reporting Standard (IFRS): Benefits, Obstacles, and Intrigues for implementation in Nigeria. *Research Journal of Finance and Accounting*, 3(10):143-151.

Mear, R., & Firth, M. (2012). *Risk Perceptions of Financial Analysts and the Use of Market and Accounting Data.* Journal of Accounting and Business Research, 18(72).

Pazarskis, M., Alexandrakis, A., Notopoulos, P. & Kydros, D. (2011). IFRS Adoption Effects in Greece: Evidence from the IT Sector. *Proceedings of the 6th Annual MIBES*, 6:60-71.

Penman, S. P. (2001). *On Comparing Cash Flow and Accrual Accounting Models for Use in Equity Valuation: A Response to Lundholm and O'Keefe*.

Penman, S. H. (1998). *A Synthesis of Equity Valuation Techniques and the Terminal Value Calculation for the Dividend Discount Model*. Journal of Review of Accounting Studies, 2: 302-323.

Athianos, S. Vazakidis, A., & Dritsakis, N. (2005). *Financial Statement Effects of Adopting International Accounting Standards: The Case of Greece*. Retrieved from SSRN: http://ssrn.com/abstract=1829348 or http://dx.doi.org/10.2139/ssrn.1829348

Athens Exchange. Retrieved from http://www.athex.gr

Deloitte's IAS Plus website (2010). *IFRS in your Pocket.* Retrieved from www.ias.plus.com

Elekidis, G., Athianos, S., Drogalas, & G., Bakas, G..*Theoretical Background and case study approach of differences between international accounting standards (IAS) and Greek GAAP*. Retrieved from http://www.drogalas.gr/uploads/publications/theoretical_background_and_case_study_approach_of_the_differences_between_international_accounting_standards.pdf

European Central Bank. *Survey on the Access to Finance of Small and Medium-sized Enterprises in the Euro Area, Second Half of 2009*. Retrieved from https://www.ecb.europa.eu/

European Commission. (2003). *The New SME Definition, Enterprise and Industry Publications. European Commission*. Retrieved from http://www.eusmecentre.org.cn/sites/

European Investment Bank. (2012). *Supporting small and medium-sized enterprises in 2012*. Retrieved from http://www.eib.org/ attachments/documents/sme_joint_report_2012

Ernst & Young Global Limited website. Retrieved from http://www.ey.com/GL/en/Issues/IFRS/IFRS-Overview

Greek Free / Open Source Software Society (GFOSS). Retrieved from https://ellak.gr/, http://mathe.ellak.gr

Hellenic Exchanges. Retrieved from http://www.helex.gr

IFRS Foundation and the IASB. *Short Guide to IFRS*. Retrieved from http://www.ifrs.org, http://www.ifrsbox.com

IFRS Foundation. *International Financial Reported Standards – Overview*. Retrieved from http://www.ey.com/GL/en/Issues/IFRS/IFRS-Overview

Price water house Coopers (2009). *Similarities and Differences, a Comparison of Full IFRS and IFRS for SMEs*. Retrieved from https://www.pwc.no/no/ifrs/publikasjoner/similarities-and-differences-a-comparison-of-ifrs-for-smes-and-full-ifrs.pdf

Price water house Coopers (2013). *Pocket Guide, International Financial Reported Standards*. Retrieved from https://www.pwc.com/jm/en/assets/document/ifrspocketguide 2013.pdf

Price Waterhouse Cooper's website. Retrieved from https://www.pwc.com/jm/en/assets/document/ifrs_pocket_guide_ 2013.pdf

Reuters (2008). *Top six audit firms push for global IFRS adoption*, by Emily Chasan. Retrieved from http://www.reuters.com/article/2008/01/15/financial-accounting-six-idUSN1440000020080115

Schipper, K. (1991). *Commentary on analysts' forecasts.* Accounting Horizons, 5(4): 105- 121.

The Institute of Chartered Accountants in England and Wales. *International Financial Reporting Standards IFRS – Complete Learning Material.* Retrieved from https://archive.org/details/InternationalFinancialReportingStandardsifrs-completeLearn material

Dimitriou, M. (2019). *A theoretical framework and perspective regarding the accounting and the technology issues in Greece*. Multinational Finance Conference Booklet (IF), 26: 66.

Dimitriou, M. (2019). *A philosophical research paradigm and a theoretical perspective of a valuation report in the beverage sector.* Multinational Finance Conference Booklet (IF: 0,47), Spring,7:38.

Dimitriou, M. (2018). *The accounting treatment of corporate valuation based on Greek Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS).* Hellenic Finance and Accounting Conference Booklet, 17: 25.

Δημητρίου, Μ. (2018). *Η λογιστική αντιμετώπιση της αποτίμησης των επιχειρήσεων βάσει των Ελληνικών Γενικά Παραδεκτών Λογιστικών Αρχών (ΓΠΛΑ) και των Διεθνών Προτύπων Χρηματοοικονομικής Πληροφόρησης (ΔΠΧΠ) για τη λήψη κατάλληλης επενδυτικής σύστασης με τη βοήθεια των Τεχνολογιών της Πληροφορικής και των Επικοινωνιών (ΤΠΕ): Παράδειγμα Ερευνητικής Έκθεσης Αποτίμησης σε επιχείρηση του Κλάδου Ποτών-Αναψυκτικών.* Διδακτορική διατριβή, Σχολή Επιστημών Πληροφορίας, ΠΔΣ στην Εφαρμοσμένη Πληροφορική, Πανεπιστήμιο Μακεδονίας.

Dimitriou, M. (2018). *What is the importance of financial reporting from Local GAAP to IFRS for companies, and how can the accounting treatment influence this factor within Firms' Valuation concept?* Paper completely reviewed at the Multinational Finance Journal (IF).

Dimitriou, M. (2018). *The Accounting Treatment of Firms' Valuation based on IFRS and Greek GAAP for Appropriate Investment Decision Making using ICT.* Multinational Finance Conference Booklet(IF:0,58), 25: 150-151.

Dimitriou, M. (2017). *A Review and Synthesis of Research on Analysts' Valuation Process Beyond Approaches and Models.* Multinational Finance Conference Booklet (IF: 0,54), Spring, 5: 24.

Dimitriou, M. (2016). *Case Study of Investment Opportunities and Decision Making on Food and Drink Firms Listed on ASE Under IFRS.* Multinational Finance Conference Booklet(IF:0,57), 23: 147-148.

Dimitriou, M. (2015). *IFRS Framework/EU Directives and their Effect on Investment Decisions: Evidence from the Greek Food & Drink Sector on the Athens Stock Exchange.* Hellenic Finance and Accounting Conference Booklet, 14: 23.

Dimitriou, M. (2015). *A Framework for Accounting Software and Finance Packages used in SMEs Based on FOSS/FLOSS.* Applied Informatics Conference Proceedings, 2: 26-39.

Dimitriou, M. (2015). *IFRS- and more Recently, IFRS for SMEs- Impact on Financial Statements Compared to Greek GAAP: The Case of SMEs in the Beverage Industry.* Multinational Finance Conference Booklet(IF:0,52), 22: 106-107.

Dimitriou, M., and Stavropoulos, A. (2014). *Impact of IFRS on Financial Statements in Greece: Application in a Multinational Company.* Hellenic Finance and Accounting Conference Booklet, 13: 16.

Dimitriou, M., and Stavropoulos, A. (2014). *Assessing a firm's performance under IFRS: The case of Coca-Cola Hellenic.* Accounting and Finance Conference Proceedings 5:29.

Dimitriou, M. (2012). *Applying the Free Cash Flow to Equity Valuation Model in Coca-Cola Hellenic.* Accounting and Finance Conference Proceedings, 4: 22-30.