

Revising Greek Accounting & Finance Education in an economic crisis environment

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Abstract— Changes in world economy caused by globalization, the requirements for sustainable development and the emergence of information as a critical resource have changed significantly the requirements for an accounting and finance professional. Moreover, the recession evidenced in the world economy, which Greece experiences at its extreme, combined with the conduct of serious malpractices of business ethics in the banking and finance sector, brought the role of accounting and finance professionals into the center of widespread debates. Accounting and finance higher education could not be left unaffected from these developments and calls for deep reforms have been made from many sources. The present study presents research in progress, aiming to investigate the compliance of the curricula delivered by the relevant Greek higher education institutes with the emerging trends in Accounting & Finance Education. Thus, gaps and weakness of the current traditional curricula are identified and the development of the orientations of a new curriculum in Accounting & Finance Education is put forth. This new curriculum should cultivate the necessary skills and competencies to the future accounting and finance professionals in line with contemporary developments in areas such as green accounting, ethics, information systems, auditing and forensic accounting.

Keywords— *accounting; education; skills; competencies; ethics*

I. INTRODUCTION

Changes in world economy caused by globalization, the requirements for sustainable development, the emergence of information as a critical resource and the associated technological progress have changed significantly the role that accounting and finance professionals are called to play. Moreover, the recession evidenced mostly in western economies, which Greece experiences at its extreme, combined with the conduct of serious malpractices in the banking and finance sector, brought into light long time unresolved systemic issues. The collapse of country economies and multinational giants alongside associated

accounting scandals inflamed once more the discussion on business ethics and put the role of accounting and finance professionals into the center of widespread debates.

Adapting to changes is not a new challenge for accountants. In his work Parker [1] discusses the restructuring that took place in the accounting profession over the last 100 years. In a similar line, Elliott and Jacobson [2] review historical trends that describe the emergence of the ‘knowledge professional’. However, what distinguishes current trends is that changes are not only major in a structural sense but also occur at a far quicker rate than before [3].

Accounting and finance higher education could not be left unaffected from these developments and calls for deep reforms have been made from many sources. Changes in multiple levels have to be made, in order to enable accounting and finance professionals to cope with the contemporary multidimensional and complex requirements. These changes must include both formal education, through reformed and contemporary curricula in higher education, and vocational training, for those already working in this field. This will enable universities and colleges to provide graduates with skills and competences in line with contemporary developments.

Accounting and finance undergraduate and postgraduate programmes can be found in abundance in higher education institutes of most western countries. While demand for such programmes remains high, it is critical that educators do not become complacent. Academics have an important role to play in maintaining the quality, relevance, and attractiveness of their programmes, in accordance with contemporary developments.

The present study is part of a research project (AFIPRO-Roles), which aims to investigate, identify and understand the emerging roles of accounting and finance professionals in the contemporary digital economy and examine the compliance of

higher accounting and finance education in Greece with the findings. The project aims to:

- Identify the role profile of accounting and finance professionals, based on contemporary developments.
- Determine the strengths and weaknesses of higher accounting and finance education in Greece in relation to social and professional reality.
- Develop an accounting and finance curriculum for higher education, which will provide students with all the necessary skills and competencies as prescribed by the aforementioned role profiles.

Within this context, this paper presents a charting of the curricula offered by the accounting and finance departments in Greek higher education institutes and provides an insight into their structure.

II. BACKGROUND

A. *Contemporary Developments in the Accounting and Finance Profession*

Researchers and national and international accounting boards converge to the conclusion that a contemporary accounting and finance professional should have some distinctive characteristics and skills and should be competent in facing challenges such as the following [3, 4, 5, 6, 7, 8]:

- *Developments in Information Technology (IT) and communications.* Advances in this area enable businesses and consumers to have real time access to more and new types of information. New technologies improve the ability of small and medium sized businesses to access global markets. At the same time, new technologies with extraordinary analytical capacity, created a situation where numerous data can be collected, processed and presented in ways and at times that could not even be imagined in the past. Consequently, IT turns out to be one of the basic required skills of modern accounting and finance professionals. Additionally, the rapid growth and very fast pace of change occurring in IT necessitates life-long learning for professionals, beyond formal education, in order to keep up with new developments.
- *Increasing competition due to globalisation.* Factories and production centers can now be located at remote countries. At the same time, shared service centers are moving jobs away from some countries and into others. Fast transportation, combined with up-to-date information produced and transmitted via modern IT and communications systems, transformed the world into a giant marketplace. These factors have a great impact on business conduction. Moreover, the need for strategic alliances with other organisations becomes increasingly prevalent.
- *Requirements for transparent financial information reporting accentuated by the economic crisis.* Changes introduced by the principles of corporate governance are dictated by the need for direct dissemination of corporate information to stakeholders in a transparent and credible

way and in a form facilitating their use by managers for monitoring and other purposes. Also, the practice of manipulating the results and the resounding failure of the state to prevent such phenomena globally, led to successive financial scandals whose effects have no geographical boundaries.

Furthermore, the impact of the current economic crisis across most western countries and the measures that governments have taken have resulted in accounting implications, which have not been seen before in the public sector. As a result of this, accountants in the public sector have the responsibility to inform stakeholders and the public with accurate and reliable information and enable the assessment of the financial implications of the crisis by:

- ensuring that the financial measures taken by national governments and other public sector bodies are correctly brought to account and disclosed in the accounts;
- ensuring that the financial effects of those measures are transparent to a reader of those accounts; and
- auditing those accounts and reporting to the relevant authorities and public.

Relevant to transparent financial information reporting is the issue of the ethical principles that should regulate all the accounting and finance professionals' activities. Since accountants have a role to play in decision making, they need to have a thorough appreciation of the potential ethical implications of professional and managerial decisions. They also need to be aware of the pressures of observing and upholding ethical principles that may fall on those involved in the decision-making process. This is true whether they are working in the industry, the public sector or education.

- *The emergence of green (environmental) accounting.* By increasing the existing pressure concerning the negative impact of business activities on the environment and the global effort to reduce pollution through relevant environmental regulations, companies have turned to adopt new environmental practices so as to comply with legislation. The adoption of such practices creates a new situation relevant to the accounting treatment of such expenditure or investments for environmental protection and sustainable development (e.g. emissions accounting, natural resource accounts). Additionally, financial penalties in some cases are so high, that is likely to result in operational problems for companies that are required to pay, especially in the middle of the current economic crisis. Some of the key relevant risks that companies can possibly face are reputational, regulatory, credit, operational and legal liability. At a day-to-day level these could manifest themselves as consumer boycotts, disrupted supply chain, fines, damage to equipment or limited availability of resources. At the same time opportunities may also arise for business in terms of new products and asset

innovation. In all these cases the adoption or not of a model of environmental consciousness will have both short and long term implications, which should be evaluated.

B. Accounting Education

Calls for radical reform in accounting education have not their roots in recent times. The work of Merino [9] provides a review of the major criticisms of accounting education over the last century and discusses how accounting professionals and academics responded. She demonstrated that criticism on academic curricula in that period has been repetitive. However, this criticism had no serious effect in the delivery of accounting courses. Merino concludes that *“for more than a century, there has been a consensus that technical knowledge is totally inadequate as the basis of accounting education but the accounting curricula continue to have a decidedly technical orientation”*.

Howieson [3] aimed at charting the accounting practice in the new millennium by examining the future of business and accounting practice, the skills that will be required by the accountants of the future and the implications of these for accounting education. He suggested that the major ‘products’ of the early 21st century may not be physical goods or even many existing services but rather knowledge and the ability to manage it. Knowledge management has been described as a continuous process *‘of creating, capturing, storing, sharing and redistributing knowledge that can enhance organizational performance’* [1]. The key concept in this description is how information can be used within an organisation to add value to its activities by identifying strengths and weaknesses and improving business processes. The Institute of Management Accountants - IMA views knowledge management as a *‘transformation of management accountants from scorekeepers to business partners’* with the result that these accountants *‘spend the bulk of their time as internal consultants or business analysts’* performing tasks *‘such as strategic planning, internal consulting, process improvement, and performance evaluation’* [10].

The International Federation of Accountants - IFAC outlined the required knowledge gained from an accounting higher education programme by pointing out that the knowledge component of such a programme can also be used to develop professional skills, since current knowledge may be obsolete later in a career [6]. Therefore, a surface approach to learning knowledge across a very broad range of subjects is not in the long-term interests of a prospective professional. The intellectual skills required include understanding, application, analysis and evaluation. Professional skills, values, ethics and attitudes are more important than the professional knowledge base obtained at the point of qualification. The content of professional accounting education should consist of [6]:

- accounting, finance and related knowledge;
- organizational and business knowledge; and
- information technology knowledge and competences.

Regarding the integration of IT in an accounting curriculum, IFAC postulates that as part of their pre-qualification education, all professional accountants are expected to participate in at least one of the roles of manager, designer or evaluator of information systems, or, a cluster of these roles [6]. In order to achieve that, the curriculum must provide a strategic and conceptual understanding of IT focusing on:

- the functions of each information technology component;
- the objectives of technology advancements for each information technology component; and
- the potential business impact of new technology.

Students do not need to understand the intricacies of each new technology. Instead, understanding the concepts behind the technology will help them learn to use, evaluate, and control technology more effectively. Without a conceptual understanding, the technology may be misunderstood and thereby employed ineffectively or even inappropriately. More important, a strategic and conceptual understanding of technology will encourage accounting students and professionals to concentrate on applying and using technology to achieve business purposes.

The obvious question generated from the above discussion is: how well does higher accounting and finance education cope with the aforementioned contemporary requirements? According to Albrecht and Sack [4], who did a major review of higher accounting education in the USA, the findings of which apply to most western countries to a lesser or greater extent, there are six broad problems:

- *Course content and curricula.* Many stakeholders view accounting curricula as too narrow and often outdated or irrelevant. Curricula are driven by the interests of faculty and not by the demands of the market.
- *Pedagogy.* The teaching of accounting is dominated by a rule based approach which promotes memorisation rather than creativity.
- *Skill development.* The focus of teaching is upon content rather than the development of ‘generic’ skills.
- *Technology.* The emphasis remains on technology as a bookkeeping system rather than on how technology can be leveraged to make business decisions.
- *Faculty development and reward systems.* The accounting teachers are largely divorced from teachers of other business disciplines and business practitioners.
- *Strategic direction.* Most accounting schools have failed to strategically plan for the changes to their environment and as such have lost ground to other disciplines and other education providers.

A different course of action is suggested by Boyce [11]. He based his criticism on contemporary accounting curricula and relevant reform efforts on the position that they remain largely rooted in the assumption that university education has no obligations beyond preparation for working life, which is at odds with the acknowledged limits of education dominated by vocational considerations. He continues by pointing out that the great bulk of accounting education continues to exhibit technical reductionism and develops severely limited perceptions of what constitute “problems” in accounting, excluding any sense of the political agenda of accounting. When proposing how to teach and learn accounting ‘outside the circle’, he states that effective accounting critique must be grounded on a solid understanding of the techniques and practices of the discipline, but when this is not infused with a thorough appreciation of the social and political context and consequences of accounting, students are effectively blinkered to the ‘realities’ of the actual practice of the discipline. For accounting education to be socially relevant, it must be infused with an exploration of areas that seem tangential to the main game of accounting such as social responsibility, quality of work life, power and control, deskilling, privacy, access, ownership etc. Aiming to advance this line of research and to manifest the feasibility and value of their approach Boyce and his colleagues developed and run a new third year elective subject in ‘Social and Critical Perspectives in Accounting’ at the Australian Macquarie University, with very encouraging results [12].

Starting from the same analysis base, Boyce also examined the issue of business ethics [13]. He first postulates that conventional responses to ethical problems resulting from corporate scandals and collapses, such as ‘better’ disclosure, ‘better’ corporate governance, or even better forms of accounting itself fail to address the underlying social, political, and ethical contexts within which these scandals arise. Business malpractices are not evidenced only due to human nature but are inherent to business systems, which do not address the *‘social and environmental costs of corporate activity as ethical spill-overs are ignored and masked by conventional accounting systems and their representations’*. Boyce extends his critique to the popular approach of teaching business ethics in accounting curricula by simply including a relevant module. He points out that *‘if ethics education is seen as a vocational add-on that is centered on solving professional dilemmas, there is a danger that ethics is treated as something separate from business and organizational activity instead of something that is integral to it’*. He concludes by arguing that what is needed is the infiltration of models and professional and educational practices with real world experiences, in all its social, economic, cultural and political complexity and contradictions.

III. CHARTING ACCOUNTING AND FINANCE IN GREEK HIGHER EDUCATION

Greek public higher education is divided between the university and the technological sectors, with the major distinction among them being that the focus of the technological sector lies on the application of sciences. After the last major reform that took place in the first quarter of 2013 the Greek higher education map includes 20 universities and 14 Technological Educational Institutes (TEIs).

Accounting programs were firstly introduced in KATEEs, which were the precursors of TEIs, in the 70’s. It was during the early 90’s that the first accounting and finance programs appeared in universities. Until then, accounting and finance modules were included only in the curricula of business administration and economics university departments. Today, 4-year accounting and finance programs are offered by 3 universities and 11 TEIs.

This study presents a charting of the accounting and finance curricula offered in Greek universities and TEIs, which serves as a starting point for attaining the research project aim to determine the strengths and weaknesses of higher accounting and finance education in Greece in relation to social and professional reality. The methodology followed can be summarized as follows:

- a. Information about the curricula was drawn from the websites of all the accounting and/or finance departments in Greek universities and TEIs. This information included the module titles and outlines and the total number of modules required for degree award.
- b. Based on the above information, for each curriculum the modules were classified into 6 disciplines, which, apart from Accounting and Finance, were Economics, IT and Mathematics, Management and Law. This choice was made because modules from these 4 disciplines are of high relevance and typically included in accounting and/or finance curricula. Furthermore, modules that could not be classified into any of the aforementioned 6 disciplines were allocated to a category titled “Other”. The results of this process are presented in table 1.
- c. The results were then analyzed, with the aim of a first identification of the curricula strengths and weaknesses in relevance with the contemporary developments in the accounting and finance profession and education, as discussed in section 2.

TABLE 1. Classification of modules in Greek higher education accounting and/or finance curricula

Institute/Department	Accounting	Finance	Economics	Management	Law	IT and Mathematics	Other	Sum of offered modules	Number of modules required for degree
<i>Universities</i>									
Athens University of Economics and Business/Accounting and Finance	18 (30%)	15 (25%)	2 (3,3%)	7 (11,7%)	4 (6,7%)	13 (21,7%)	1 (1,7%)	60	41
Macedonia/Accounting and Finance	17 (27,4%)	21 (33,9%)	3 (4,8%)	5 (8,1%)	6 (9,7%)	9 (14,5%)	1 (1,6%)	62	46
<i>Average</i>	<i>18 (28,7%)</i>	<i>18 (29,5%)</i>	<i>3 (4,1%)</i>	<i>6 (9,8%)</i>	<i>5 (8,2%)</i>	<i>11 (18%)</i>	<i>1 (1,6%)</i>	<i>61</i>	<i>44</i>
Piraeus/Banking and Financial Management	6 (10,2%)	30 (50,8%)	7 (11,9%)	6 (10,2%)	2 (3,4%)	6 (10,2%)	2 (3,4%)	59	48
<i>TEIs</i>									
Central Greece/Accounting	23 (48,9%)	2 (4,3%)	5 (10,6%)	5 (10,6%)	6 (12,8%)	5 (10,6%)	1 (2,1%)	47	40
Central Macedonia/Accounting	18 (40,9%)	4 (9,1%)	5 (11,4%)	5 (11,4%)	3 (6,8%)	7 (15,9%)	2 (4,5%)	44	39
Crete/Accounting	22 (51,2%)	4 (9,3%)	6 (14%)	1 (2,3%)	3 (7%)	6 (14%)	1 (2,3%)	43	39
East Macedonia and Trace/Accounting	22 (52,4%)	3 (7,1%)	5 (11,9%)	3 (7,1%)	2 (4,8%)	5 (11,9%)	2 (4,8%)	42	39
Epirus/Accounting	19 (46,3%)	3 (7,3%)	3 (7,3%)	6 (14,6%)	2 (4,9%)	6 (14,6%)	2 (4,9%)	41	39
Piraeus/Accounting	23 (41,8%)	3 (5,5%)	7 (12,7%)	8 (14,5%)	6 (10,9%)	5 (9,1%)	3 (5,5%)	55	40
Thessaloniki/Accounting	17 (40,5%)	3 (7,1%)	4 (9,5%)	3 (7,1%)	6 (14,3%)	7 (16,7%)	2 (4,8%)	42	39
Thessaly/Accounting	19 (45,2%)	3 (7,1%)	5 (11,9%)	5 (11,9%)	3 (7,1%)	6 (14,3%)	1 (2,4%)	42	40
Western Greece (Mesologi)/Accounting	20 (45,5%)	3 (6,8%)	4 (9,1%)	4 (9,1%)	6 (13,6%)	5 (11,4%)	2 (4,5%)	44	40
<i>Average</i>	<i>20 (45,8%)</i>	<i>3 (7%)</i>	<i>5 (11%)</i>	<i>4 (10%)</i>	<i>4 (9,3%)</i>	<i>6 (13%)</i>	<i>2 (4%)</i>	<i>44</i>	<i>39</i>

The following must be noted for clarification purposes:

- The 2013 higher education reform in Greece enforced the 11 Accounting and 4 Finance departments to be renamed from September 2013 into Accounting and Finance. In cases where an institute had both departments, the reform enforced their merge. As a result of this the present higher education map in Greece includes 11 Accounting and Finance TEI departments.
- At the time that this study was made, the new TEI Accounting and Finance departments were in the process of redesigning their curricula. This led us to examine the curricula of their precursor Accounting departments, information for which was still available on the respective institutes' websites. Moreover, it was decided to look into the curriculum of a single department from each TEI and therefore all the 4 old Finance TEI departments, which have now been merged with their Accounting counterparts, have been excluded from our investigation.
- Table 1 includes information drawn from the curricula of 9 out of the 11 precursors of the new Accounting and Finance TEI departments. This is due to the fact that the websites of the remaining 2 TEIs did not provide any relevant information.

- All TEI curricula include a compulsory six-month work placement, which the students have to undertake during the spring semester of their fourth year. Therefore, all taught modules in TEI's are spread in 7 semesters instead of 8 as is the case with universities.
- The contents of several modules have elements from more than 1 discipline. Such modules have been classified to the discipline covering the largest share of their contents.

IV. DISCUSSION

The percentages of the number of modules classified in every discipline over the total number of modules offered by the department were calculated, in order to acquire an insight of the curricula structure (table 1). The results show that, with some exceptions, there is a largely uniform distribution of modules across the various disciplines in all the 9 TEI departments. The same observation applies when examining the curricula of the 2 university Accounting and Finance departments.

Another useful observation is that while there is not a significant divergence between the numbers of accounting and finance modules in the university departments this is not the

case in the TEI ones. There, accounting modules cover on average approximately 46% of the total number of modules offered, while the finance ones only 7%. Obviously, this can be attributed to the fact that the TEI curricula were examined before the renaming of the corresponding departments from Accounting to Accounting and Finance. It can be expected that the accounting and finance module proportions in the new TEI curricula will resemble that of the university departments i.e. approximately 29% each. Based on the results presented in table 1, the additional finance modules are expected to mostly substitute modules from the accounting and economics disciplines.

As a final note regarding the present curricula structure, it must be pointed out that the university departments offer a larger number of modules than the TEIs' (on average 61 and 44 respectively) and require from students to pass more modules (on average 44 and 39 respectively). This is basically due to the fact that university curricula typically include 8 semesters of taught modules, while the TEI ones 7. An additional reason is that the total number of university staff members holding a permanent position is larger by far than that of TEIs (approximately 10.000 and 1700 respectively). At the same time, the rate of university/TEI students is much smaller than the corresponding of staff members.

As it has already been mentioned, for a long time in Greece accounting and finance education was considered mostly as a science application field and was offered only in TEIs. That alone is a clear indication of the prevalence of the technical educational approach in the subject. This approach has not been significantly altered by the introduction of the 3 relevant university departments. A close examination of the modules included in the present curricula, of both universities and TEIs and their outlines, provides a clear indication that to a large extent Greek higher education follows a flat approach to learning knowledge across a broad range of subjects, which according to many researchers and professional boards is the root problem that accounting and finance education faces. Obviously, these are some preliminary observations requiring further elaboration, which is planned to take place in the next stage of the research project.

Regarding the teaching of business ethics, the curricula review process showed that it is very limited if present at all. A single relevant module is offered in the curricula of only 4 institutes (2 universities and 2 TEIs), while it is absent from all the others. The examination of the auditing modules' outlines unveiled that they include some elements of business ethics. As for environmental accounting, a single relevant module was found in the curriculum of a university department.

V. FUTURE WORK

As it has already been stated this paper serves as a starting point for attaining the research project aim to determine the strengths and weaknesses of higher accounting and finance education in Greece. Our future plans involve:

- Interviews with heads of departments and members of staff in order to discuss our findings and elaborate further on the curricula strengths and weaknesses.

- A similar review of curricula offered by foreign higher education institutes, mostly in western countries, so that a clear picture of their structure is acquired. This will enable us to get a more comprehensive view of current trends and facilitate the comparison with the Greek reality.
- The conduct of two field surveys. The first field research will focus on the investigation of the contemporary role of professionals based on practitioners' perspective. Building on academics' perceptions, the second field research will explore the current trends in Higher Education in the fields of Accounting and Finance in order to identify the strengths and weaknesses of the existing relevant education system.

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