ACCOUNTING EDUCATION AND RESEARCH IN RELATION TO BUSINESS NEEDS

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***Abstract**: The purpose of this study is to investigate whether and to what extent accounting education and research fit business needs. The study highlights differences between business needs and academic knowledge, including teaching and research in accounting. We used a structured questionnaire to reveal perceptions' differences through cluster analysis, including a sample of students, teaching staff from Accounting and Finance Departments and employers. The results indicated that all these groups have different perceptions.*

Key words: Accounting Education, Accounting Research.

JEL Classification Codes: M41, A2.

1. INTRODUCTION

Accounting education provides competencies to students to be well-trained and skilled workforce (McVay *et al*. 2008). Curriculum content of Accounting departments, is vital because provides students with the theoretical framework compulsory for understanding business management and, at the same time, provides students' with knowledge and techniques which are necessary to start up and manage businesses efficiently (Venter, 2001).

Curriculum profile that businesses need from their workforce is undergoing substantial change, especially in regard to higher education graduates. Taking into consideration the functions that are associated with higher education, they should respond to these business demands. As a result, they should educate their students following a curriculum that fits the needs of the labor market. This fit would allow improvement in the employability of higher education graduates (Marzo-Navaro*, et al.* 2009).

Business environment has become dynamic and as result, the role and the required skills of accountants have also changed (Robson *et al*., 2003), and they are more complex than just bookkeeping (Sundem, 1994). Accounting education should follow the changes in the business field and provide a curriculum that will reinforce the accountant's efforts to respond sufficiently to modern needs. Researchers indicate that undergraduate business education is failing to prepare graduates for today's work environments (Andrews & Higson, 2008; Jackson, 2009b; Washer, 2007; Cranmer, 2006; De La Harpe, *et al*., 2000; Craig and Amernic, 2002; Gammie *et al*., 2002).

Warren and O'Toole (2005) support that business schools do not prepare students for the business world. The curriculum should enhance active participation in social processes, with the appropriate knowledge and skills (Sikka, *et al*. 2007). Nowadays, companies demand from their

employees a combination of cognitive background and personal skills (Howieson, 2003). Therefore, changes in the higher education accounting curriculum are of vital importance.

Moreover, research contributes to the development of knowledge and is important for academic progression. Research in Accounting field is vital for the accounting education and accounting practice development (Wright and Chalmers, 2010). Parker *et al.* 2011 supports that research in accounting improves education and provides better skills to accountants. Literature supports that research in accounting does not fit with the interests of the professionals and business and detached from practice (Parker *et al*. 2011; Baldvinsdottir *et al*., 2010; Hopwood, 2007; 2008; 2009).

There has been little research investigating how competencies developed in undergraduate accounting and business education train graduates to meet workplace needs effectively (Casner & Benner, 2006; Jackson, 2009a; Washer, 2007; Pittaway and Edwards (2012)

This study investigates the Curriculum of the Department of Accounting and Finance, East of Macedonia & Thrace Institute of Technology. The survey used a questionnaire that was answered by different groups: the employers (who employ graduates from the Accounting and Finance Department, East of Macedonia & Thrace Institute of Technology), the graduates of the Accounting and Finance Department, East of Macedonia & Thrace Institute of Technology) and the teaching staff (who work in East of Macedonia & Thrace Institute of Technology). The survey addresses the following main research questions: Is there a fit between the skills and the curriculum that provided by the Accounting and Finance department and the needs of the employers? Is there a fit between accounting research and professionals?

The paper is organised as follows: First, a review of the findings of previous empirical research examining the link between accounting education/research and the desirable competencies are presented. Then, a brief description follows of the methodological issues concerning this research, and, finally, the results of Data analysis are discussed.

2. LITERATURE REVIEW

Business education, such as problem-solving, team skills and innovation, is important because provides the skills and knowledge that are vital to develop a business culture (Chia, 1996; Heinonen, 2007). Accounting education enables companies to follow the changes in the economy and technology (Sandhu *et al*. 2012). Adequate accounting education and training amongst the citizens of a country and more specifically for business is essential for well functioning modern economy (Fogarty *et al.* 2016; Hussain, *et al*. 2008; Sandhu *et al*., 2012).

Moreover, lack of sufficient financial knowledge, skills and education is a major problem to entrepreneurial success and growth (Hussain, *et al*. 2008). As a result, many countries have started to apply policy frameworks to improve entrepreneurship education and training in order to develop entrepreneurial activity (Pittaway and Cope, 2007; Cheung, 2008). However, it is uncertain by which means the desired outcomes are to be achieved (Hytti *et al*., 2010) and Education and training is characterised by ambiguity about what and how it should be taught (Greene and Saridakis, 2007; Pittaway and Cope, 2007).

Therefore, firms' future performance is often threatened by inadequate vocational and entrepreneurial education and training (Matlay and Mitra, 2004; Hussain and Matlay, 2007; Hussain *et al*., 2007). Specifically, literature has provided evidence that there is a lack of business knowledge and skills as the main reasons for business failure (O' Gorman, 2001). For instance, Indian business education courses provide training but do not focus on businesses needs. As a result, there is a mismatch between the Indian educational system and what businesses really need (Bahadur, 2012). Empirical evidence supports that employers around the world continue to be concerned about new graduates' ability to meet current and future workplace needs (McQuaid &

Lindsay, 2005; Jackson, 2009a,b). For example, the accounting profession doubts the relevance of accounting education provided by higher education, and argues that academic programs do not appropriately prepare students to meet the challenges of the market (Albrecht and Sack, 2000).

Accounting education had just not kept pace with changes in the business environment (Albrecht and Sack, 2000). The program of study, including the curriculum, strongly affects the quality of student learning (Biggs, 1999; Prosser and Trigwell, 1999).

Yet, it is such programs that have been severely criticized recently for failing to provide the education necessary to enable today's accounting professionals to make the business and accounting judgments that might have led to the prevention of Enron and similar fiascos (Diamond, 2005). For example, Lin *et al.* (2005) using a questionnaire survey asked Chinese accounting practitioners, educators, and students about the required knowledge, skills, and pedagogy that underlie accounting programs. Their results have shown that the current accounting education in China is far from the required knowledge and skills demanded of professional accountants, signifying that accounting education reform in China is crucial (Lin, *et al*., 2005).

On the other hand, Marzo-Navaro *et al.* (2009) and Barcienas *et al.* (2000) have found that an improvement in education brings a number of benefits such as higher income level and economic growth. Hence, higher education has an important role in the leverage of an economy. Palazo and Tobar (2004) have found a positive impact on human skills through the integration of the higher education curriculum and the needs of the markets.

Marzo *et al.* (2007) using a survey, has indicated that over 30 per cent of qualified graduate students in Europe, work in a job whose requirements are far below their employees' education level. Additionally, Baruch and Peiperl (2000) support that a high number of young graduates aim mostly at certain programs, such as MBAs, where the overproduction of graduates creates problems in the labour market.

Researchers (Bui and Porter, 2010; Kavanagh and Drennan, 2008; Jackling and De Lange, 2009; Gammie *et al*., 2002) examined gaps between accounting teaching staff and employers in the accounting sector and have found that the perceived importance in the profiles of generic skills among faculty was inconsistent with those of employer groups. De Lange *et al*. (2006) have found that graduates perceived both interpersonal/communication skills and statistical/computing skills as more significant than accounting/governance knowledge and technical skills.

Jackson and Chapman (2012), using a survey, have developed business graduate competency groups which depict the current needs of Australian employers. They have provided evidence that the next generation of graduates must be equipped with the required competencies to successfully contribute to the rapidly evolving economic, technological and social environments (Jackson and Chapman, 2012).

Marzo-Navaro *et al.* (2009) analyse the differences between the competencies that companies demand for higher education graduates with the curriculum that higher education follows to educate their students. Their study used two data sources. The first was a survey sent to companies to gather the market's perceptions about curriculum needs. The second source was data collected from higher education students. The results show the various competencies that higher education institutes must develop upon the education of their students. This improvement would mean a better fit between the higher education curriculum and business needs.

Moreover, accounting research should attempt to improve accounting practice. In spite of the fact, that accounting research enhances education, is less recognized for its implication to practice (Moehrle *et al*., 2009). Parker *et al.* 2011 report that accounting research is essential to the higher education, but its impact on professional practice could be further investigated. Parker *et al.*, (2011), Unerman *et al.* (2008); English *et al.*, (2010) support that academics and professional bodies are working together to increase the interaction between accounting education, research and professionals.

3. RESEARCH METHODOLOGY

This study examines whether accounting curriculum fits business demand. The survey includes a structured questionnaire and a pre-testing took place to improve the format of the questions. The pilot study included twenty-seven employers, students and teaching staff who carefully read the questionnaires. The pilot was designed to ensure face and content validity of the instrument and to determine whether the questions, as they were worded, could achieve the desired results, the questions were placed in the best possible order, the questions were understood by all groups of respondents. A preliminary notification (to explain the scope of the survey) was given to the subjects of the survey to increase the response rate of the questionnaires.

The questionnaire consisted of eighty closed questions to collect information about business needs (regarding the skills and competencies of the students) the curriculum of the Accounting and Finance Department, Kavala Institute of Technology and accounting research. The items were adapted from Paisey and Paisey (2010), Jackson and Chapman (2012), and Marzo-Navarro *et al.* (2009). Statistical tests were performed to ensure the validity and reliability of the questionnaire (such as Cronbach alpha, Total Variance Extracted and KMO (Kaiser-Meyer-Olkin). The first part gathered data concerning the profile of respondents (demographic) and the second part collected data about the skills students acquire in their academic education. The respondents indicate their perceptions about the skills and competencies that the department provides.

Each variable of the second section was assessed with a 5-point Likert scale and the questionnaires were filled in by three subgroups, the teaching staff, the students and the employers. The respondents were asked to indicate their level of agreement or disagreement on a five point Likert scale. The students and teaching staff were asked to rate whether they believe that these skills had been provided by the curriculum of the Accounting and Finance Department. The employers were asked to rate whether their employees' education and training should include these skills. Additionally, items investigated professionals' perceptions regarding the fit between accounting research and practice. The data was analyzed through statistical software SPSS. All the necessary statistical tests were performed and confirm the reliability and validity of our research instruments.

To meet the objectives of this project, academic staff involved in teaching in the Accounting and Finance Department, East of Macedonia & Thrace Institute of Technology, graduate students and representatives of companies had to respond to the respective instruments. The curriculum of this Department is the representative curriculum of all the Accounting and Finance departments in Greece.

The research population included one hundred sixty six (166) students, twenty five (25) teaching staff of the Accounting and Finance Department, East of Macedonia & Thrace Institute of Technology, and one hundred fifty five (155) companies in northern Greece which, during this period, employed graduates of the Department of Accounting and Finance. The total number of valid questionnaires was one hundred and eighty. Forty four (44) per cent of the total sample was students, forty three (43) per cent employers and thirteen (13) per cent teaching staff.

As far as gender is concerned, 67.3 per cent of the teaching staff were male and 32.7 per cent female. Moreover, 66.7 per cent of the employers were male and 33.3 per cent female. Finally, 36.1 per cent of the students were male and 63.9 per cent female.

Considering the variable of age, the estimated mean value of the teaching staff was 44 years, with a standard deviation of 11 years. The estimated mean value for employers was 42.04 years with a standard deviation of 9 years. As for students, the mean age was 25 years with a standard deviation of 4 years.

The majority of the employers came from the area of financial services seventy (70) percent, whereas the additional significant percentage came from other sectors such as industry thirty (30) per cent. The graduates that worked in sectors other than financial services were employed in the

accounting sector of the company. The questionnaires from the other sectors were completed by the foreman of the accounting sector.

4. DATA ANALYSIS

Factor analysis has been conducted, using principal component method and varimax rotation (KMO = 0,891, Bartlett's Test of Sphericity = 3325, significance < 0,001) and identified five factors. Then, Cronbach's alpha statistic has been used to determine the degree of consistency among the measurements of each construct. Each construct of the survey has exceeded the acceptable level (0.6) of Cronbach's alpha.

The following questions related to the respondents' (students, companies, teaching staff) beliefs about the skills that have been acquired or should be acquired from the Department of Accounting and Finance. The analysis shows that the results are statistically significant (Pillai's F = 2,311, p<0,001, Partial Eta Squared = 0,282). Table 1 includes means to compare the answers of different groups of respondents.

The content of major of study depicts differences between employers' and students' perspectives. For example, some questions imply that higher education should focus on practical training providing link to companies. Generally, teaching staff believes that the content of the major of study is sufficient (3.91 mean) but employers are less satisfied (3.58 mean), implying that the content could be improved.

Employers (in Table 1) rate social and methodological skills (4.12 mean) at higher levels than the other two categories (F=9.584, p<0.05). Therefore, they focus on these skills and believe that the employees' social and methodological skills should be high. Compared with the results of the other two categories it is obvious that the departments should emphasize these skills. For example, some questions imply that graduates should have better foreign language background better oral and written communication skills and that graduates should have the ability to think critically.

There are similar results concerning participation skills where employers rank these skills higher (3.94 mean) than the other categories (F=6.908, p<0.05). For example, the department should emphasize teamwork ability.

The results concerning participation skills are similar (Table 1). Employers rank these skills higher (4.05 mean) than the other two categories (F=6.908, p<0.05) and obviously believe that skills which relate to graduates' participation should be improved. Whereas the educational department emphasizes the theoretical background, companies' needs relate to social, methodological and participation skills.

Additionally, employers believe that academic research in accounting does not fit between accounting practice (3.7 means) and support that academics should focus on a greater fit with accounting practice.

Table 1. Skills

	Mean		
	Lecturers/professors	**Employers**	**Students**
Content of the major of study	3.91	3.58	3.64
Social Skills	3.88	4.12	3.5
Methodological Skills	3.75	3.94	3.59
Participation Skills	3.56	4.05	3.54

5. DISCUSSION AND RESULTS

The results of this study reveal a consensus of opinion among employers, teaching staff and students concerning the higher education curriculum. The respondents believe that advanced and accounting courses are very important for their performance and progress, while, on the other hand, they claim that general and financial courses are of only moderate importance. All three categories (students, teaching staff and employers) agree that advanced courses are vital for expanding the management skills of the employees. Financial-theoretical courses and general courses are of moderate importance. The comparative analysis shows that the teaching staff rate advanced courses as more important than students and employers.

Concerning the business demand components, the content of major of study is considered to be high labeled. Employers and enterprises indicate skills such as social, methodological and participation skills as of great importance, whereas teaching staff and students have a more neutral opinion on the subject. Employers rate social and methodological skills higher than teaching staff and students do. Lastly, all three categories consider that participation skills have a high level of importance.

Moreover, survey indicates that research should emphasise on the improvement of accounting education and also focus on accounting practices. The literature review has shown that in today's business environment there is a need for competent workers. The above findings confirm the theory that the companies demand from their employees a combination of cognitive background and personal skills, and the most basic required skills are: creativity, communication skills, the ability to cooperate and the ability to plan strategies (Howieson, 2003). However, the theory that the process of accounting education is passive and boring (Diamond, 2005), has not been confirmed.

6. CONCLUSIONS

The educational system in many countries is focused on theoretical aspects rather than on helping individuals acquire entrepreneurial skills needed for new venture creation and business management. To cope with a changing world, entrepreneurs and the individuals who work with them need to have entrepreneurial skills and abilities (Henry and Treanor, 2010). Many national education systems are in a process of reform in order to adapt economic and social changes. The integration of entrepreneurship education is among the objectives of many of these curricular reforms (Eurydice, 2012). Changes have been started in accounting education in the US due to prior calls for reforms (Cummings, *et al*., 2001; Lux, 2000).

Survey has been conducted concerning the accounting education and research, the skills required by accountants, and the demands of businesses. In line with previous major studies (such as Marzo-Navaro *et al*., 2009; Bahadur, 2012), the findings reveal differences between groups' perceptions. Moreover, the questionnaire investigates the perceptions of the employers regarding the fit between research and practice.

Although, the department has placed emphasis on the theoretical background, companies' needs related to social, methodological and participation skills. The employers have placed more emphasis on social, methodological and participation skills rather than the theoretical knowledge of the courses. These findings are in line with Marzo Navaro *et al.* (2009) who have found that higher education institutes must improve various competencies in the education of their students.

According to the questionnaire survey, departments have to focus on skills and knowledge, and mainly on the following: general culture, oral communication skills, written communication skills, public speaking skills, ability to think critically, ability to work under pressure, and personal fit with the company's image. The department should improve the fit with the market emphasizing the development of these skills. For example, an employee with specific characteristics of

developed skills and knowledge would be more competitive than other employees. Additionally, employers believe that the gap between research and practice should be decreased.

This study contributes to the field of accounting education and research, since it provides evidence supporting the significance of mismatches between business needs and academic knowledge including teaching and research. Moreover, this study, even though it was conducted at the Greek Educational Institute alone, can help us understand what happens in other similar education systems all over the world. It can be added together with other studies in other countries contributing to a systematic examination of these issues. The practical implication of this study is that the management of the department can improve the curriculum profile of the students by developing their skills and the ministry of education should promote the research in accounting focusing on collaborating programs with accounting practice and businesses.

The Accounting and Finance Department has to create an environment not only conducive to teaching and learning, but most importantly to enabling students to put the actual skills gained to work. According to the results of the study, the curriculum in Accounting and Finance Departments has to provide the following: i) a match between the expectations of employers and the curricular content, ii) the development of knowledge and skills, iii) relevance to the employers' organisations, iv) practical demonstrations from employers to students of the Department

This study highlights the need to strengthen competency development within undergraduate business education and to reform curriculum undergraduate studies. Higher education curriculum should try to develop student's skills. A methodology to achieve that could be the incorporation of work placement into the higher education curriculum, which links the job market and academic studies (Stevenson, 2005). The academic staff should try to overcome all the barriers, provide update studies and place the work into the curriculum, in order to help students to identify their work position and become competent professionals.

The findings of the study reveal that adjustments could improve the curriculum and therefore the study enables us to provide the following suggestions. A course or seminar that prepares the students and connects market and theory should provide the last year of the studies (for example employers from companies could speak to the students). Furthermore, the department should adopt modern teaching methods such as analysis of information, case analysis, real company-assignments, and technology assignments should be used extensively to accomplish the objectives of accounting education reform. Moreover, the literature review provides a better understanding of employers' expectations and the accounting curriculum content.

The conclusions provided further empirical input and a framework for assessing the content of existing accounting programs. The results could be used to reform curriculum to build up the required knowledge and skills in accounting education and research.

It is important that future research be directed towards collecting data from more academic institutions as well as from more companies. Greece was chosen not only because of the ease of data availability, but because the higher education systems and accounting education in this country present some similarities to those that exist across Europe. Further research could expand the scope of this research by conducting this survey in other countries to compare and to verify these results.

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