

Analysis of the theme Management Accounting in Accounting education at HEI from Minas Gerais in the light of the Global Curriculum and the National Proposal of the CFC/FBC

Abstract

This research aimed to identify and analyze the compliance level of management accounting contents in the subject descriptions of Accountancy courses at Higher Education Institutions (HEIs) in the state of Minas Gerais, in the light of the Global Curriculum (GC) developed by the UN / UNCATED / Isar and the National Proposal submitted by the Federal Accounting Council (CFC) / Brazilian Accounting Foundation (FBC). The selected sample consisted of 23 public and private higher education institutions from Minas Gerais that offer the Accountancy course and published the curricular structures on their institutional websites. Through the analysis of the content of curricula and plans of disciplines related to the management accounting area, it was found that, with respect to the National Proposal, there were few differences between the offer of subjects and contents analyzed between public and private institutions. There was some homogeneity in the presence of the topics covered by educational institutions, as all education institutions have more than half of the management accounting-related content. A difference is noteworthy between public and private institutions in the supply of content indicated by the discipline Management Information Systems, which 47% of private HEIs do not offer, while only one of the public institutions does not offer the discipline. In relation to the GC, the HEIs have differences in common in the way they approach the content. The contents that are covered most at the HEIs are discussed in the subjects Financial Statement Analysis, Controllershship and Management Accounting.

Key words: Management Accounting. Teaching. Higher Education Institutions.

Paula Mieko Oda Faria

B.Sc. in Accountancy from Universidade Federal de Uberlândia
Municipal public servant at Uberlândia Municipal Government
Contact: Av. Anselmo Alves dos Santos, 600. Secretaria Municipal de Finanças – Plataforma de Atendimento.
Bairro: Santa Mônica. Uberlândia-MG. CEP: 86300-000
E-mail: paulamieko@gmail.com

Edvalda Araújo Leal

Ph.D. in Administration from Fundação Getúlio Vargas(SP)
Adjunct Professor in graduate and undergraduate programs at Universidade Federal de Uberlândia
Contact: Av. João Naves de Ávila, 2121, sala 1F253. Bairro Santa Mônica. Uberlândia-MG. CEP: 38408-100
E-mail: edvalda@ufu.br

1. Introduction

Discussions on the globalization process have stimulated the accounting sector to join forces in order to prepare professionals for the labor market. Thus, it is important to know how the higher education institutions (HEIs) are behaving in relation to the training of accounting professionals.

Accounting teaching has received considerable attention in recent years. Thus, studies that renew the discussion on accounting education and publications in the field of education are under development (Miranda & Riccio, 2010). Padoan (2007) states that, since the Industrial Revolution, some changes have been made in the market, resulting from the emergence of large corporations and the capital market. This also revealed the need for more detailed and accurate information, such as those relating to the development of mechanisms to study the behavior of costs in organizations.

Given the importance of information quality, there was the need to achieve a breakthrough in Accounting. In that sense, management accounting is an important management tool (Padoan 2007).

Management accounting has undergone some questioning in the history of accounting on its value as a decision making tool. Thus, research on this subject was expanded in relation to its content and purpose in organizations (Miranda & Riccio, 2010). As a result, research on accounting education gain relevance, in this case on management accounting, in view of the need to check what the higher education institutions (HEIs) have offered and what the market wants on the classification of these professionals.

As for vocational training in the management area, Böer (2000) discusses that accounting education offers little support to the decision-making process. This fact causes a misalignment between what educational institutions (academy) offer and what the labor market requires, a fact corroborated by in the studies by Tan, Flower and Hawkes (2004) and Eklbatani and Sangeladji (2008).

In this context, Czesnat, Cunha and Domingues (2009) believe that the accounting courses should consider subjects covering information about the national and international economic and financial scenario in their educational projects. The aim is to adapt the international accounting standards to the education established by the World Trade Organization (WTO) and the peculiarities of the Brazilian government agencies.

Fajardo (2012) states that the accounting profession has been one of the fastest growing careers in recent years. This situation occurs because the accounting professional is directly related to providing information that can help managers in decision making. According to the National Institute of Educational Studies Anísio Teixeira (INEP) (2012), today, the Accounting course ranks fourth in the list of the most popular courses for undergraduate students, behind Administration, Law and Education, according to the 2012 Census (INEP, 2012).

Based on the context presented, the objective in this study was to answer the following question: What is the level of compliance between the theme Management Accounting offered in Accounting courses at public and private HEIs in Minas Gerais?

Thus, this research aimed to identify and analyze the level of compliance of management accounting content in subject descriptions of Accounting courses offered at public and private HEIs in Minas Gerais. For the analysis, we used the content of the National Proposal submitted by the Federal Accounting Council (CFC) and the Brazilian Accounting Foundation (FBC) and the proposal of the Intergovernmental Work Group of Experts on International Standards of Accounting and Reporting (Isar) and United Nations Conference on Trade and Development (UNCTAD).

As for the specific objectives, the research sought to (i) establish the disciplines that include program contents on the subject management accounting; and (ii) analyze and present the convergences or not displayed in the descriptions of disciplines on the subject of management accounting proposed by national and international curricula.

The relevance of this study is based on the importance of investigating the similarities and differences in the contents taught in the Accounting courses, in the education of accounting professionals, analyzing the national and international proposals to regulate accounting education.

It is expected that the study will help managers of higher education institutions that offer accounting courses, as well as teachers and students in the course, when it comes to examining whether the management accounting content offered in the course grants students a proper level of management accounting knowledge.

2. Theoretical Background

2.1 Management Accounting: teaching and research

HEIs have certain autonomy to meet the claims of the labor market, professional entities, the Ministry of Education and teachers for the training of professionals who will work in the labor market (Almeida & Catani, 2009). Such autonomy is based on training that covers the competencies required by the entities for the performance of professional accounting functions.

Accounting education in general is influenced by the labor market. The challenges produced by the professional market, according to Palmer, Ziegenfuss and Pinsker (2004), give rise to several opportunities for accounting students. However, in line with Tan, Flower and Hawkes (2004), although there is this interaction between teaching at universities and the business environment, there are usually differences between them. The authors interviewed teachers and market professionals on the issues that are important in management accounting and found that academics would be more interested in current issues, as the market would attribute greater relevance to traditional themes.

In this context, Ekbatani and Sangeladji (2008) investigated where there would be a potential difference of opinion between academic and practical research in management accounting, involving the main themes and skills to be developed in undergraduate courses. The survey, conducted in the United States, included interviews with 34 teachers and 29 professionals. The researchers concluded that there are no significant differences between the perceptions of the two groups investigated.

As for the studies on accounting education, Walter, Cruz, Espejo and Gassner (2009) address specific aspects, with very strict evaluations. Overall, the research related to accounting education is especially focused on the financial accounting area.

Such studies are especially driven by the interest in verifying the information needs of managers in decision making (Aguilar & Guerrero, 2008). Thus, the discussions on Management Accounting increased, emphasizing its content, interactions with other areas of knowledge and its role in organizations.

Johnson and Kaplan (1987) emphasize that the management accounting system should be able to assist the internal user with relevant information about the organization, employees, customers, suppliers and competitors.

There are, therefore, some studies that discuss management accounting and its application in decision making. With regard to the management accounting disciplines, some studies seek to determine whether the issues addressed in the subjects are in line with market requirements. Moreover, other studies confront the contents taught in courses with content suggested by organizations involved in the discussion of the accounting curriculum (Macêdo, Silva Xavier & Light, 2014).

According to Iudícibus (2008), management accounting also uses other areas of knowledge, not restricted to accounting, using concepts from the field of operations management, organizational structure and financial management, in which all organizational accounting operates. For Souza, Ribeiro, Cordeiro and Clemente (2007), the disciplines that support the development of management accounting are: Cost Accounting, Financial Accounting, Financial Statement Analysis, Management, Economics, Statistics and Mathematics.

Although the demands of the labor market require knowledge related to financial and tax accounting, these should be complemented by notions that permit company management activities, which require knowledge of management accounting (Evangelista, 2005).

Thus, as the professional acts in managerial roles, he needs extensive knowledge for the profession. Thus, HEIs play a key role in the development of these professionals, as they promote teaching (Person, 2000).

Thus, according to Almeida and Catani (2009), the requirements for the training of skilled professionals for the labor market need to be met and, therefore, higher education has been harmonized with adjustments in their curricular structure. These adjustments are intended to monitor the changes occurring in the business environment. Therefore, changes in curricula occur unavoidably, like in undergraduate courses in Accounting.

It is important to emphasize that the managers want the universities to expand the managerial content, enabling the development of enterprises, which requires preparation of students, involving managerial skills throughout the academic qualification (Hassall, Joyce, Montaña & Anes, 2005).

It is further understood that, according to Hassall et al. (2005), the labor market demands skills and professional competencies in accounting that are not limited to technical skills. In this sense, the qualification in the field of management accounting is crucial for the performance of future accounting professionals.

Hence, the perception is emphasized that educational institutions are responsible for the training of professionals and their curricula and, therefore, they should be evaluated carefully, particularly with regard to updates in view of the national and international market demands (Pereira, Lopes, Pederneiras & Mulatinho, 2005).

2.2 Proposed curricula for undergraduate Accountancy course: international and national analysis

First, it is important to conceptualize and present the objective of the curriculum in the academic area. In this sense, Dutra (2003, p. 20) defines it as “a set of disciplines that the school uses to structure the body of knowledge of a specific course”. As for the goal, the curriculum is used to guide the teaching and learning process and should provide the basic guidelines necessary for academic planning to achieve professional education of students (Peleias, 2006).

In this context, teaching in the area of Accounting has continuously expanded, motivated by the demands requested by the social and business environment. Thus, this topic is focused on presenting the Global Curriculum (GC) proposed by the UN / UNCTAD / Isar and the National Content Proposal for undergraduate degrees in Accounting prepared by the FBC and approved by CFC through CFC Decree No. 13/06 of 2/3/2006.

The International Standards of Accounting and Reporting (Isar) is a group dependent on the United Nations Conference on Trade and Development (UNCTAD), established in 1982, and has as its objectives the promotion of studies and discussions in Accounting, professional education and publication of information. Isar is the only intergovernmental group dedicated to financial discussions at the corporate level, aiming to improve the overall comparability and reliability of financial reporting (UNCTAD, 2010).

The United Nations (UN), through UNCTAD and Isar, set a global curriculum that can be used as a guide for educational institutions in Accounting in shaping their curriculum structures (Fields & Helms, 2012). UNCTAD believes that the GC should act as an adviser, defining the technical content of an accounting professional's education. The document also emphasizes that the detailing of the curriculum is an initiative for countries seeking to adapt their educational system based on global conditions (UNCTAD, 1999).

The Isar divided the knowledge necessary for the course in Accounting in four blocks and indicated specific modules for the studies. In relation to management accounting, there is a disclosure in two blocks related to that theme, which are: Financial Accounting knowledge and related matters and (advanced) Knowledge in Accounting, Finance and related matters. The first module addresses Management Accounting – Basic concepts – and the second refers to Advanced Management Accounting.

According to Silva, Silva and Vasconcelos (2011), the UN / UNCTAD / Isar emphasize the relevance of a GC for the undergraduate degree in Accounting because the curriculum serves as a reference for the establishment of agreements between countries, reducing costs and time. It also has the objective of bringing the curriculum to the same reality and constituting basic conditions in accounting activities around the world. Thus, Ott and Pires (2010) point out that the Isar / UNCTAD has produced reports that show the competencies Accounting professionals need when they enter the labor market.

Nationally, CNE / CES Resolution No. 10/2004 (Brasil, 2004) determines that the HEI, to establish their curricula, should include basic training, vocational training and theoretical and practical training contents.

According to Souza and Ortiz (2006), CNE / CES Resolution No. 10/2004 admits mobility to HEIs compared to the previous curricula that restricted higher education, as they had no relationship with changes in the work environment and they did not emphasize the practice. Still according to the authors, the current resolution allows educational institutions to make changes to meet the needs of students and the market.

The provisions of CNE / CES Resolution No. 10/2004 are broad and flexible, allowing each institution to define which subjects should be taught, the number of hours / class for each content, provided that the curriculum content is taken into account.

Thus, the content of the National Proposal was presented for the degree course in Accounting by the Federal Accounting Council and the Brazilian Accounting Foundation, in order to suggest contents that are in accordance with CNE / CES Resolution No. 10 / 04 from 10/12/2004, particularly with Article 5, which cites the discussion of contents (CNE - National Education Council, Ces - Chamber Of Higher Education, 2004):

Art. 5 [...]

I - Basic Training: Studies related to other areas of knowledge, especially Administration, Economics, Law, Quantitative Methods, Mathematics and Statistics;

II - Vocational Training: Specific studies relating to the accounting theories, including the notions of actuarial activities and quantification of financial information, property, government and non-governmental audits, investigations, arbitrations and controllership, with its peculiar applications to the public and private sector;

III - Theoretical-practical Training: Supervised Curricular Training, Complementary Activities, Independent Studies, Elective Content, Computer Lab Practice using updated software for accounting.

Thus, if Art. 5 of that resolution is complied with in the pedagogical project of HEIs, then the curriculum can be flexible so that it can be updated in accordance with the developments in Accounting, and its changes can be made in compliance with the law (Brazilian Accounting Foundation, 2009; Ott & Pires, 2010).

Thus, the National Proposal CFC / FBC establishes the curriculum components by thematic area. The curriculum is the set of disciplinary activities expressed in different curricular elements, such as compulsory subjects, electives, internship, Course Conclusion Monograph; and complementary activities that relate to the Institutional Development Plan and Educational Project of each course, expressing the goal of the course and the expected profile of graduates (Centro Universitário de Volta Redonda, 2008).

In the National Content proposal, the undergraduate degree in Accounting, through CFC Ordinance No. 13/06 of 3/2/2006, should contain the description, the program content, the suggested bibliography, workload and general goals. In addition, the courses should cover models of regulations and guidelines for course conclusion monographs, additional activities and training for the Bachelor of Science course in Accounting, in the “in-class” and “distance” education modalities (Brazilian Accounting Foundation, 2009).

Discussions are observed on the improvement of accounting curricula in HEIs. In this sense, we highlight the studies by Cavalcante, Aquino, Luca, Ponte and Bugarim (2011), - Campos and Lemes (2012), Macêdo et al. (2014) and Faria and Leal (2014).

Choi et al. (2011) examined whether the curricula used by Accounting courses are suitable for the GC recommended by the UN / UNCTAD / Isar in federal universities in Brazil. The results showed that the curricula of the HEIs analyzed are less than 50% appropriate to the disciplines proposed by the GC and various disciplines offered by the Brazilian federal universities do not correspond to the GC. Although the statistical test Spearman's correlation was performed, no relationship was revealed between the Brazilian federal universities and the GC.

Campos and Lemes (2012), then, compared the GC and the curriculum adopted by the Minas Gerais universities to identify the degree of similarity between them. Four universities from this state were selected and the findings showed that, unlike Choi et al. (2011), on average, 57.68% of the contents at the universities checked is similar to the curriculum proposed by the UN / UNCTAD / Isar.

Macedo et al. (2014) state that, concerning the issues linked to the management area, more than half of Brazilian state-owned universities address most of the contents adopted internationally. It identified the presence of management disciplines, highlighting Cost Accounting and Controllership, present in all curricula. The Management Accounting discipline is present in 80% of the surveyed educational institutions, reflecting the importance of this area of knowledge for accounting.

Faria and Leal (2014) show that, in the context of HEIs in Minas Gerais, the compliance level of the subjects and content associated with management accounting, according to the analysis proposed by Souza, Borget, Lunkes and Richartz (2012), mainly comprises cost measuring and management. It was also found that the average supply of courses is 7.2 at public HEIs and 6.3 at private HEIs.

In the literature review on the study theme, the relevance of investigating what the higher education institutions have offered is verified. In the next section, we present the methodological procedures adopted for this research.

3. Method

The study population consists of the Accounting courses presented in the classroom mode by the Higher Education Institutions of Minas Gerais. The list of educational institutions was taken from the platform of the Ministry of Education and Culture (e-MEC), corresponding to 104 HEI in Minas Gerais, of which seven are public and 97 private - the data were collected in 2015. The decision to evaluate institutions located in this state is due to the large amount of HEIs enabled to offer that course, besides being a feasible option for collecting the information needed for the research.

In the survey, it was found that, in this population, three HEI were not offering the course, and the websites of seven other institutions were not located to search for the information. It is important to observe that there were repetitions of institutions in the population, for having units in different cities. Thus, for the sample, only one HEI was considered, with the assumption that the curriculum structures and descriptions are similar.

To survey the analysis material, we used the curriculum frameworks (curriculum) and descriptions available on the websites of the institutions, considering the assumption that higher education institutions have websites on the internet, where the descriptions of the research data needed are published.

Hence, for the research sample, the institutions were selected which had published the course descriptions or curricula on their websites or through pre-established contact with the course coordinators. It is noteworthy that four institutions stated that this information is confidential and therefore was not available.

Thus, the study sample was restricted to 23 institutions. Table 1 shows the institutions in the study sample:

Table 1

Sample of teaching institutions that participated in the research

Institutions	Abbreviation
Universidade Federal de Minas Gerais	UFMG
Universidade Federal de São João Del Rei	UFSJ
Universidade Federal de Uberlândia	UFU
Universidade Federal de Juiz de Fora	UFJF
Universidade Federal do Vale do Jequitinhonha e Mucuri	UFVJM
Universidade Federal de Viçosa	UFV
Universidade Presidente Antônio Carlos	Unipac
Universidade Estadual de Montes Claros	Unimontes
Centro Superior de Ensino e Pesquisa de Machado	Cesep
Centro Universitário da Fundação Educacional de Guaxupé	Unifeg
Centro Universitário do Cerrado – Patrocínio	Unicerp
Centro Universitário do Planalto de Araxá	Uniaraxa
Faculdade Aldete Maria Alves	Fama
Faculdade Anhanguera	Anhanguera
Faculdade de Administração de Campo Belo	Facamp
Faculdade de Ciências e Tecnologias de Unai	Factu
Faculdade Cenecista de Varginha	Faceca
Faculdade de Nova Serrana	Fans
Faculdade Politécnica de Uberlândia	FPU
Faculdade Triângulo Mineiro	FTM
Instituto de Ensino Superior Presidente Tancredo de Almeida Neves	Iptan
Pontifícia Universidade Católica de Minas Gerais	PUC Minas
Universidade Vale do Rio Verde	Unicor

Source: elaborated by the authors according to the platform e-MEC.

The contents of the descriptions the institutions in the study proposed were analyzed in accordance with the objectives set for this research, i.e. all descriptions were analyzed of the subjects taught at the selected institutions in relation to the theme Management Accounting.

Thus, the contents disclosed were verified in the course programs and, subsequently, the analysis of the contents of their descriptions was undertaken in the year 2015. Finally, after identifying the content, it was possible to compare the information on the theme in the GC and the National Proposal CFC / FBC.

In the next section, we present the analysis of the results, according to the proposed research.

4. Results

As mentioned above, the GC is divided into blocks, which are: Administrative and Organizational Knowledge; Information technology; Accounting, financial knowledge and related matters; and (advanced) Knowledge in Accounting, Finance and related matters. However, in this research, only the contents related to Management Accounting will be analyzed in the GC.

Table 2 presents the topics identified in Management Accounting, corresponding to Accounting, Financial Knowledge and related matters and (advanced) Knowledge in Accounting, Finance and related matters:

Table 2

Management Accounting – Global Curriculum Topics

Contents related to Management Accounting Blocs in Global Curriculum	
Knowledge in Accounting, Finance and related topics	(Advanced) Knowledge in Accounting, Finance and related topics
Management Accounting – basic concepts: Produce accounting information provided at all management decision levels with efficiency and efficacy in the allocation of the organization’s scarce economic, human and financial resources.	Advanced Management Accounting: Guarantee the candidates’ competency to prepare and analyze the management accounting data, apply them to a range of situations, planning, control and decision making and adapting to the changes.

Source: adapted from TD/B/COM.2/Isar/21 (2003).

Concerning the National Proposal, Table 3 presents the topics identified in “Professional Education” related to Management Accounting.

Table 3

Management Accounting Contents in National Proposal CFC/FBC

Contents related to Management Accounting Proposta Nacional National Proposal
Professional Education
Cost Accounting: Apply cost concepts for evaluation, inventory control and knowledge of cost system tools, with a view to serving as the base for decision making. Description: Introduction to Cost Accounting; Cost Classification and Naming; Costing Systems; Basic Cost Schedule; Implementation of Cost Systems; Joint Costs.
Cost Verification and Analysis: Develop knowledge on factors affecting company costs, granting conditions for analysis focused on decision process. Description: Introduction to Cost Analysis; Analysis of Cost Variations; Contribution Margin; Relation Cost / Volume / Profit.
Controllership: Understanding the company management process through controllership, performance assessment and company management tools functions. Description: Contextualization; Planning; Management and Controllership; Performance Assessment; Management Tools.
Project Analysis and Company Budget: Apply the mechanisms of the company budget elaboration process, developing skills for structuring a company’s budgetary control and applying the project assessment techniques. Description: Introductory Aspects; Sales Budget; Production Budget; Operational Expense Budget; Cash Budget; Projected Income Statements; Projected Balance Sheet; Budgetary Control; Company Project Analysis.
Financial Statement Analysis: Apply the balance sheet analysis criteria for the development of logical reasoning, which will contribute to the establishment and issuing of critical judgments on the companies’ economic and financial situation. Description: Concepts; Adjustments in Financial Statements for Analysis Purposes: Vertical and Horizontal Analysis; Economic-Financial Analysis.
Management Information Systems: Offer an understanding of the information needed for the organizational decision process; dimension the structure to permit the implementation and operation of the information systems; and guarantee comprehensiveness, updating and reliability of information. Description: Basic Concepts; Information Systems and Subsystems.

Source: adapted from National Proposal of content for undergraduate course in Accountancy (2009).

As observed, the National Proposal does not indicate the specific discipline Management Accounting. Nevertheless, at some institutions, the discipline figures in the curriculum and the content mentioned in Table 3 is discussed.

The contents indicated in the National Proposal and the GC related to Management Accounting was analyzed in comparison with the contents presented by the HEIs under analysis. Table 4 displays the contents located in the subject programs of the study sample, as indicated in the National Proposal. It should be mentioned that the contents identified cover the theme in general, that is, it was not intended to measure the supply percentage of these contents in the HEIs studied.

Table 4

Contents related to Management Accounting indicated in the National Proposal of CFC/FBC

HEI	Professional Education – Content					
	Cost Accounting	Cost Verification and Analysis	Controllership	Project Analysis and Company Budget ***	Financial Statement Analysis	Management Accounting Systems
UFMG						
UFSJ	x	x	x	x	x	x
UFU	x	x	x	x	x	-
UFJF	x	x*	x	x	x	x
UFVJM	x	x**	x	x	x	x
UFV	x	x**	x*	-	x	x*
Unipac	x	x	x	x	x	x
Unimontes	x	x	x	-	x	x
Cesep	x	x* and x**	x	x	x	x
Uunifeg	x	x	x	x	x	-
Unicerp	x	x*	x	x	x	-
Uniaraxa	x	x	x	x	x	-
Fama	x	x	x	x	x	-
Anhanguera	x	x**	x	-	x	-
Facamp	x	x	x	x	x	x
Factu	x	x	x	x	x	x
Faceca	x	x	x	-	x	x
Fans	x	x**	x	x	x	x
FPU	x	x**	x	x	x	-
FTM	x	x	-	x	x	-
Iptan	x	x*	x	x	x	x
PUC Minas	x	x	x	x	x	x
Unicor	x	x	x	x	x	-

*The subject Management Accounting is not discussed in the National Proposal, despite content on the theme.

**The contents were indicated in the content of Cost Accounting as evidenced in the course description.

***Only the content related to Company Budget was considered.

Source: research data.

The analysis of Table 4 reveals that, at most of the educational institutions surveyed, the contents converged with the National Proposal. Only in relation to the content of Management Information Systems, nine institutions (UFU, Unifeg, Unicerp, Uniaraxa Fame Anhanguera, FPU, FTM and Unicor) of the 23 HEIs analyzed did not present or discuss the content of the National Proposal in another discipline.

In addition, Project Analysis and Corporate Budget was other content that was not addressed by four institutions (UFV, Unimontes, Anhanguera, Faceca). It is worth noting that, although the National Proposal indicates Project Analysis in conjunction with the Business Budget, only UFJF presented the contents as described in the National Proposal, which, according to the national curriculum, involves concepts; errors in the project design; simulations; project interface; project management areas; model for project management.

Thus, only the Corporate Budget theme was considered in the content analysis. The budget as activity and artifact, according to the research by Miranda and Riccio (2010), is considered one of the most relevant points by professionals and its impact on curricula is often not always directly visible.

It should be noted that the level of detail of the content in the descriptions analyzed differs among institutions, indicating that some topics may have been omitted in the analysis of some HEIs. These results converge with the findings of the study by Macêdo et al. (2014).

Regarding the content Cost Determination and Analysis, although some institutions do not address it as an isolated discipline, it appears both in Management Accounting and Cost Accounting discipline. The same applies to the Controllership content, which one of the institutions mentioned within the Management Accounting discipline.

Similar results are found in the research by Macêdo et al. (2014), which reveal that the disciplines Cost Accounting and Controllership are present in all curricular structures. Thus, especially the disciplines related to Cost Accounting stand out, present in all curricula. Internationally, the United States, the survey conducted by Ekbatani and Sangeladji (2008) pointed out that, among the tools surveyed, some contemporary cost management techniques had a very low rate of citation between the investigated groups (teachers and professionals in the market).

It is noteworthy that the Management Accounting discipline is not addressed in the National Proposal, but what is proposed by this discipline in the curriculum descriptions of the HEIs converges with what is recommended in the national curriculum for the disciplines Cost Calculation and Analysis, Accounting and Management Information Systems. According to a study by Macêdo et al. (2014), the Management Accounting discipline is present in 80% of the public institutions surveyed, consistent with the importance of this field of knowledge for Accounting.

Thus, it was found that 11 HEIs address all the content recommended in the National Proposal; 10 HEIs cover 83% of the content; and only two deal with 66% of what is proposed in the national curriculum. It is noteworthy also that there were few differences between the supply of courses with the contents analyzed between public and private institutions.

Faria and Leal (2014) reported in their study that the main differences between the institutions on the subject under study refer to the offering of electives, as the same courses are offered mostly by public institutions. The authors highlight the disciplines Corporate Strategy, Business Logistics and Planning and Budget of public institutions and others related to complementary themes in the areas of Financial Accounting, Management and Control.

For the analysis of the GC, the convergent contents were investigated between this curriculum and the contents presented by the higher education institutions surveyed. Table 5 shows the content proposed in the module "Management Accounting – basic concepts":

Table 5

Content description of “Management Accounting – basic concepts” module

Management Accounting: Basic Concepts
Cost accounting and management
Costing: entry of resources
Costing methods: product costing
Prices of goods and services
Costing systems: calculation of marginal costs in contrast with absorption costing
The methods of cost accounting and management
Budget as a tool for decision making
Information for budget, planning and control
Standard costing

Source: adapted from TD/B/COM.2/Isar/21 (2003).

It was found that, of the 23 HEIs analyzed, 19 (82%) cover all related content in the GC for the module “Management Accounting - Basic Concepts”. Thus, only four educational institutions (UFV, Uniaraxa, Anhanguera and Faceca) failed to address any of the topics in this module. The topics that these HEIs did not cover were “budget as a tool for decision-making” and “information for budgeting, planning and control.”

It was noted that, despite offering the discipline business budget, as recommended in the National Proposal, Uniaraxa and Faceca do not address the budget with the scope described in the GC, nor related to another discipline. It is noteworthy that, according to Macêdo et al. (2014, p. 11), the fact that the content described does not appear in the descriptions may have occurred because “some institutions do not detail the content covered in each item.”

Table 6 shows the results identified with regard to the content offered by the HEIs surveyed for the module ‘Management Accounting - basics’.

Table 6

General distribution of “Management Accounting – basic concepts” module in the subjects taught at the HEIs

Indicated topics in MA – Basic Concepts	Disciplines
1. Cost accounting and management	
2. Costing: entry of resources	
3. Costing methods: product costing	1. Cost accounting
4. Prices of goods and services	2. Cost analysis
5. Costing systems: calculation of marginal costs in contrast with absorption costing	
6. Budget as a tool for decision making	1. Company budget
7. Information for budget, planning and control	2. Budgetary management
8. Standard costing	3. Company finance
	4. Financial management
	1. Cost accounting
	2. Cost analysis

Source: research data.

The analysis of the course descriptions showed the predominance of the discipline Cost Accounting and Cost Analysis in this module. Concerning the topics ‘budget as a tool for decision making’ and ‘information for budgeting, planning and control’, these were only identified in the disciplines: Corporate Budget, Budgetary Management, Corporate Finance and Financial Management.

The contents the HEI presented for the module “Advanced Management Accounting” were analyzed and evidenced in Table 7.

Table 7

Content description of “Advanced Management Accounting” module

Advanced Management Accounting
Business planning
Accounting management project
Assessment of effect of changes in the company structures, functions and performance measures on the applicability and appropriateness of the accounting and management techniques and methods
Performance measures for planning and control
Other information for decision making
Non-financial indicators, such as productivity per employee or service unit
Non-financial corporate objectives, such as environmental and social objectives

Source: adapted from TD/B/COM.2/Isar/21 (2003).

To analyze the contents indicated in the module Advanced Management Accounting, the percentage of compliance of the HEIs studied to each of the topics proposed in the GC was analyzed, displayed in Table 8.

Table 8

Range of the Module “Advanced Management Accounting” in subjects taught at HEIs

Indicated topics in MA – Advanced Management Accounting	Percentage of compliance	
	Number of HEI	%
1. Business planning	18	78
2. Accounting management Project	9	39
3. Assessment of effect of changes in the company structures, functions and performance measures on the applicability and appropriateness of the accounting and management techniques and methods	23	100
4. Performance measures for planning and control	23	100
5. Other information for decision making	23	100
6. Non-financial indicators, such as productivity per employee or service unit	6	26
7. Non-financial corporate objectives, such as environmental and social objectives	11	48

Source: research data.

As verified, items 3, 4 and 5 are present in all descriptions at the higher education institutions analyzed, that is, the coverage rate is 100% in relation to this content. The least addressed items in the descriptions are item 7, referring to non-financial (environmental and social) contents, with 48% of compliance at the HEIs; item 2, about project management, with 39% of compliance; and item 6, with only 26% of coverage in the descriptions of the investigated HEIs, referring to the non-financial indicators.

To complement the analysis of the contents proposed in the GC present in the descriptions of each investigated HEI, the coverage of each topic in the module “Advanced Management Accounting” was observed. Table 9 illustrates the results.

Table 9

Range of the Module “Advanced Management Accounting” at each HEI

HEI	Indicated topics in MA							% of compliance per HEI
	1	2	3	4	5	6	7	
UFMG	x	x	X	x	x	x	x	100
UFSJ	x	x	X	x	x	-	x	86
UFU	x	-	X	x	x	x	x	86
UFJF	x	x	X	x	x	-	x	86
UFVJM	-	x	X	x	x	-	x	86
UFV	-	x	X	x	x	-	x	86
Unipac	x	x	X	x	x	-	-	71
Unimontes	-	-	X	x	x	-	-	43
Cesep	x	-	X	x	x	-	-	57
Unifeg	x	-	X	x	x	-	x	71
Unicerp	x	-	X	x	x	x	-	71
Uniaraxa	x	-	X	x	x	-	-	57
Fama	x	-	X	x	x	-	x	71
Anhanguera	x	-	X	x	x	-	-	57
Facamp	x	x	X	x	x	-	-	71
Factu	-	-	X	x	x	-	-	43
Faceca	-	-	X	x	x	x	-	57
Fans	x	-	X	x	x	x	x	86
FPU	x	x	X	x	x	-	-	71
FTM	x	-	X	x	x	-	-	57
Iptan	x	-	X	x	x	x	x	86
PUC Minas	x	x	X	x	x	-	-	71
Unicor	x	-	X	x	x	-	x	71

Source: research data.

It was found that only UFMG covers all the contents disclosed in this module. Furthermore, seven other HEIs (UFJS, UFU, UFJF UFVJM, UFV, Fans and Iptan) cover 86%, eight HEIs (Unipac, Unifeg, Unicerp Fame Facamp, FPU, PUC Minas and Unicor) cover 71%; five (Cesep, Uniaraxa, Anhanguera, Faceca and FTM) discuss 57%; and two (Unimontes and Factu) address less than half (43%) of the content proposed in the GC. When compared to previous studies on the GC, Campos and Lemes (2012) found that more than half of the universities in Minas Gerais are similar to the curriculum proposed by the UN / UNCTAD / Isar.

It was also found that the HEIs have common differences in the content approach, focusing on topic 6 (non-financial indicators such as productivity per employee or service unit).

Regarding topic 7 (non-financial corporate objectives, such as environmental and social objectives), it was found that all public higher education institutions address the issue in their descriptions, converging with the GC and diverging from private HEIs. The same applies to topic 2 (Accounting Management Project), where only one of the public institutions does not address the content proposed in the description.

Still on topic 7 (non-financial corporate objectives), it was found that, in general, the disciplines that deals with this content in the HEIs surveyed are basically: Corporate Governance, Environmental Accounting, Social Accounting and / or Social Responsibility. Thus, in the analysis of the descriptions, it was verified that the management content proposed by the GC is offered by the HEIs in non-management subjects.

About topic 2 (Accounting Management Project), it was found that the subjects related to the management theme are addressed in: Management Accounting and Management Information System. It was noted that this topic (contents) is also addressed in disciplines related to the administration area, such as: Entrepreneurship, Financial Management and Business Management.

Item 6 (non-financial indicators, such as productivity per employee or service unit) was the least addressed by the HEIs surveyed in subjects classified in the Management Accounting area. These contents were identified in the disciplines: Market Administration, Business Management, some topics in Marketing Management, Controllership and Corporate Budget.

The contents most covered at the HEIs are discussed in the disciplines: Financial Statement Analysis, Controllership and Management Accounting. Thus, they converge with what is proposed in the GC.

With regard to management accounting content indicated in the National Proposal CFC / FBC, certain homogeneity was observed in the presence of the topics covered by educational institutions, as all education institutions in Minas Gerais have more than half of the content related to Management accounting.

A difference is noteworthy between public and private institutions in the supply of the contents indicated by the discipline Management Information Systems, where 47% of private HEIs do not offer it and only one of the public institutions fails to provide the discipline. Despite this low offer at private institutions, Management Accounting, according to Santos, Pinheiro, Fermo and Cunha (2002), - needs information systems that accurately and immediately translate the data for the accounting facts relevant for the management decisions.

About the GC, it is noteworthy that there were some differences in the offer of some content proposed, but that 82% of the HEIs address all topics proposed in the module “Management Accounting - Basic Concepts”, and 91% of the HEIs address more than half of the topics indicated in the “Advanced Management Accounting” module, converging with the studies by Macêdo et al. (2014).

5. Conclusions

This research aimed to identify and analyze the level of compliance of Management Accounting in Accounting courses at the public and private HEIs in Minas Gerais in relation to the National Proposal CFC / FBC and the Global Curriculum.

It was found that 11 higher education institutions address all the content recommended in the National Proposal; 10 HEIs cover 83% of the content; and only two deal with 66% of what is proposed in the national curriculum. It is noteworthy also that there were few differences between the offer of courses with the contents analyzed between public and private institutions.

Although it was found in the National Proposal, the Management Information System discipline was not much discussed compared with the other subjects in the course descriptions. The discipline is no longer indicated by 40% of the HEIs and this must be re-evaluated by the institutions because they address what the professionals consider important. However, as evidenced by Miranda and Riccio (2010, p. 207), “some points considered important by market professionals are little observed in the curricula and their contents”.

It was found that, in relation to the research sample, all HEIs in Minas Gerais present the content related to Management Accounting in relation to the National Proposal. Regarding the GC, it was found that there were some differences in the offering of some contents proposed; 82% (19 HEIs) address all topics proposed in the module “Management Accounting - basic concepts”; and 91% (21 HEIs) address more than half of the topics listed in the “Advanced Management Accounting” module.

In two institutions analyzed (Uniaraxa and Faceca), it was found that, despite offering the discipline Corporate Budget as recommended by the National Proposal, the budget was not discussed to the extent required in the CM.

Thus, it is expected that this research will contribute academically to the guidance of the academic managers of Accounting courses, concerning the teaching scope of the theme Management Accounting in the HEIs surveyed. The study presents detailed contents of the management area which the HEIs, in this case public and private, in Minas Gerais, offer in the course curricula.

Thus, the relevance of the subject treated in this research is verified, because the accounting professionals who will work in this area require qualifications covering management accounting to better serve the market in relation to the disclosure of management information. So, it is also expected that this research will help to complement the studies in the field of accounting education.

As a limitation of this study, the research sample is highlighted, which comprised only the Higher Education Institutions in Minas Gerais. It is important to note the time limitation with regard to the proposal of UNCTAD, which was approved in 1999, and the National Structure approved by the FBC, from 2009, since the analysis of curriculum frameworks and descriptions of the HEIs surveyed was based on these documents.

As a proposal for future research, expanding the sample to other regions is suggested, in order to compare the results of this study, and also expanding the investigation to other accounting themes.

References

- Aguiar, A. B. & Guerreiro, R. (2008). Processos de persistência e mudança de sistemas de contabilidade gerencial: uma análise sob o paradigma institucional. *Revista Universo Contábil*, Blumenau, 4(3), pp. 6-24.
- Almeida, V. P. Jr. & Catani, A. M. (2009). Algumas características das políticas de acreditação e avaliação da educação superior da Colômbia: interfaces com o Brasil. Sorocaba: Avaliação: *Revista da Avaliação da Educação Superior*, Campinas, 14(3). doi: <http://dx.doi.org/10.1590/S1414-40772009000300003>
- Böer, G. B. (2000). Management Accounting Education: Yesterday, Today, and Tomorrow. *Issues in Accounting Education*, 15(2), pp. 313–334. doi: 10.2308/iace.2000.15.2.313
- BRASIL, Presidência da República. Ministério da Educação. *Resolução CNE/CSE n.º 10*, de 16 de dezembro de 2004. Institui as Diretrizes Curriculares Nacionais para o Curso de Graduação em Ciências Contábeis, bacharelado, e dá outras providências.
- Campos, L.C. & Lemes, S. (2012). Análise comparativa entre o currículo mundial proposto pela ONU/UNCTAD/ISAR e as universidades federais do estado de Minas Gerais. *Administração: ensino e pesquisa*, Rio de Janeiro, 13(1), pp. 145-182. doi: <http://dx.doi.org/10.13058/raep.2012.v13n1.101>
- Cavalcante, D. S., Aquino, L. D. P. de., Luca, M. M. M. de., Ponte, V. M. R., & Bugarim, M.
- C. C. (2011). Adequação dos Currículos dos Cursos de Contabilidade das Universidades Federais Brasileiras ao Currículo Mundial de Contabilidade e o Desempenho no Enade. *Pensar Contábil*, Rio de Janeiro, 13(50), pp. 42-52.
- Centro Universitário de Volta Redonda. *Guia Acadêmico* (2008). Volta Redonda: UNIFOA, Recuperado de 05 janeiro, 2014 de http://unifoa.edu.br/portal_ensino/jurídico;pdf;guia-acad.pdf.
- Czesnat, A. F. de O., Cunha, J. V. A., & Domingues, M. J. C. S. (2009). Uma análise comparativa entre os currículos dos cursos de ciências contábeis das universidades do estado de Santa Catarina listadas no MEC com o currículo internacional proposto pela UNCTAD/ONU/ISAR. *Gestão e regionalidade*. 25(75), pp.22-30. doi: 10.13037/gr.vol25n75.186
- Ekbatani, M. A., & Sangeladji, M. A. (2008). Traditional Vs. Contemporary Managerial/Cost Accounting Techniques Differences between opinions of educators and practitioners. *International Business & Economics Research Journal*, 7(1), pp. 93–112. doi: <http://dx.doi.org/10.19030/iber.v7i1.3213>

- Evangelista, A.A. (2005). *O currículo dos cursos de Ciências Contábeis e o mercado de trabalho para o profissional contador*. Dissertação de Mestrado, Centro Universitário Álvares Penteado, São Paulo, SP, Brasil.
- Dutra, O. T. (2003). *Proposta de uma matriz curricular para o curso de Ciências Contábeis na grande Florianópolis*. Dissertação de Mestrado em Contabilidade e Controladoria, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, SP, Brasil.
- Fajardo, V. (2012). *Guia de carreiras: ciências contábeis*. Portal G1, São Paulo. Recuperado em 03 janeiro, 2014, de <http://g1.globo.com/educacao/guia-de-carreiras/noticia/2012/08/guia-de-carreiras-ciencias-contabeis.html>.
- Faria, P. M. O. & Leal, E. A. (2014). *Análise da adoção de conteúdos relacionados à área gerencial nos cursos de ciências contábeis: um estudo no estado de Minas Gerais*. Anais Congresso UFSC de Controladoria e Finanças e Iniciação em Contabilidade, Santa Catarina, SC, Brasil, 5º.
- Fundação Brasileira de Contabilidade. (2009). *Proposta nacional de conteúdo para o curso de graduação em ciências contábeis*. (2ª ed. rev.). Brasília: Fundação Brasileira de Contabilidade.
- Hassall, T., Joyce, J., Montañó, J. L. A. & Anes, J. A. D. (2005). Priorities for the development of vocational skills in management accountants: a European perspective. *Accounting Forum*, n. 29, pp. 379-394. doi: 10.1016/j.accfor.2005.03.002
- INEP. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2012). *Censo da Educação Superior 2012 - Resumo Técnico*. Brasília: Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, 2014. Recuperado em 18 setembro, 2015 de <http://download.inep.gov.br/download/superior/censo/2012/resumo_tecnico_censo_educacao_superior_2012.pdf>
- Iudícibus, S. (2008). *Contabilidade Gerencial*. (6ª ed.). São Paulo: Atlas.
- Johnson, T. H. & Kaplan, R. S. (1987). *Relevance Lost*. Boston. Havard Business School Press.
- Macêdo, L. C. B., Silva, R. P. A., Xavier, V. V. N. T. & Luz, J. R. M. (2014). *Avaliação das ementas das disciplinas relacionadas à área gerencial: um estudo em universidades públicas estaduais no Brasil*. Anais do Congresso USP de Iniciação Científica em Contabilidade, São Paulo, SP, Brasil, 11.
- Ministério da Educação e Cultura. *Instituições de Educação Superior e cursos cadastrados*. Recuperado em 28 julho, 2013, de <https://emec.mec.gov.br/ies>.
- Miranda, C. S & Riccio, E. L. (2010). *Ensino em contabilidade gerencial: uma análise comparativa de percepções de importância entre docentes e profissionais utilizando as dimensões de atividades, artefatos e competências*. Tese de doutorado, Universidade de São Paulo, SP, Brasil.
- Ott, E. & Pires, C.B. (2010). Estrutura curricular do curso de Ciências Contábeis no Brasil versus Estruturas curriculares propostas por organismos internacionais: uma análise comparativa. *Revista Universo Contábil*. 6(1), pp.28-45. doi:10.4270/ruc.2010102.
- Padoan, Fátima A. da C. (2007). *Ensinar e aprender contabilidade mapeando cenários*. Dissertação de Mestrado em Contabilidade, Programa de Mestrado em Contabilidade, Setor de Ciências Sociais Aplicadas, Universidade Federal do Paraná. Curitiba, PR, Brasil.
- Palmer, K. N., Ziegenfuss, D. E. & Pinsker, R.E. (2004). International knowledge, skills and abilities of auditors/accountants. *Managerial Auditing Journal*, 19(7), pp. 889-896. doi: <http://dx.doi.org/10.1108/02686900410549411>
- Peleias, I. R. (Org.). (2006). *Didática do ensino da contabilidade: aplicável a outros cursos superiores*. São Paulo: Saraiva, 348 p.

- Pessoa, M. N. M. (2000). *Gestão das universidades federais brasileiras: um modelo fundamentado no balanced scorecard*. 304 f. Tese de Doutorado, Universidade Federal de Santa Catarina, Florianópolis, Brasil.
- Pereira, D. M. V. G., Lopes, J. E.G., Pederneiras, M. M. M. & Mulatinho, C. E. S. A. (2005). *Formação e a qualificação do contador face ao programa mundial de estudos em contabilidade proposto pelo ISAR: uma abordagem no processo*. Anais do Congresso USP de Iniciação Científica em Contabilidade, São Paulo, SP, Brasil, 4º.
- Portaria Conselho Federal de Contabilidade – CFC nº. 13. (2006). Proposta nacional de conteúdo para o curso de graduação em Ciências Contábeis. Juarez Domingues Carneiro (coordenador) ... [et al.] – Brasília: Fundação Brasileira de Contabilidade, 03 de fevereiro de 2006.
- Santos, C. W., Pinheiro, G. J., Fermo, J. & Cunha, L.R.S. (2002). Existe de fato uma contabilidade gerencial? *Revista Contabilidade Vista e Revista*, Belo Horizonte, 13(2) pp.9-24.
- Silva, F. V. G., Silva, M. D. O. P. & Vasconcelos, A. F. (2011). *Uma avaliação da Estrutura curricular dos Cursos de Ciências Contábeis nas IES da cidade de Caruaru/PE diante da proposta da ONU/UNCTAD/ISAR*. Anais do Simpósio de Excelência em Gestão e Tecnologia, Resende, RJ, Brasil, 8º.
- Souza, D. C. de, Ribeiro, R. R. M., Cordeiro, A. A. L. & Clemente, A. (2007). *A abrangência da Contabilidade Gerencial segundo os docentes paranaense de Contabilidade*. Anais do Congresso USP Controladoria e Contabilidade, São Paulo, SP, Brasil, 7º.
- Souza, M. B. & Ortiz, H. C. (2006). A estrutura básica para o ensino superior de Contabilidade. In: PELEIAS, I. R. (Org.). *Didática do ensino da contabilidade: aplicável a outros cursos superiores*. São Paulo: Saraiva.
- Souza, F. R., Borget, A., Lunkes, R. J. & Richartz, F. (2012). Análise do conteúdo das ementas das disciplinas relacionadas à área gerencial. Anais do Encontro da ANPAD, Rio de Janeiro, RJ, Brasil, 26.
- Tan, L. M., Fowler, M. B., & Hawkes, L. (2004). Management accounting curricula: striking a balance between the views of educators and practitioners. *Accounting Education*, 13(1), pp. 51–67. doi: 10.1080/0963928042000201293
- UNCTAD – Conferência de Las Naciones Unidas sobre Comércio y Desarrollo International Standards of Accounting and Reporting – Isar:- TD / B / COM.2 / ISAR / 6 (1999). *Plan de estudios Mundial para La formación de contables profesionales*. Genebra.
- UNCTAD- United Nations Conference on Trade and Development. Sobre as Normas Internacionais de Contabilidade e Reporting - Isar. (2010). Disponível em: < <http://www.unctad.org/Templates/Page.asp?intItemID=2905&lang=1> > Acesso em: 03/03/2010
- Walter, S. A., Cruz, A. P.C., Espejo, M. M. M. S., & Gassner, F. P. (2009). Uma análise da evolução do campo de ensino e pesquisa em Contabilidade sob a perspectiva de redes. *Revista Universo Contábil*, 5(4), pp. 76-93.