

## Competences versus Competencies in Romanian Accounting Education

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### Abstract

Higher education in accounting should be formative and not informative; therefore there should be a transition from a type of education based on providing knowledge to one that is based on skill development, from teacher-centered education to student-centered education. This paper will present various points of view concerning the competencies/ competences of the accounting professional.

Keywords: accounting education, competency, competence, skills

### 1. Introduction

Higher education in accounting has witnessed great development in time contributing, on the one hand, to the training of many promotions of accounting professionals and, on the other hand, to the promotion of accounting both as practical activity and scientific theory. Expanding accounting education requires finding the most efficient methods of knowledge-based instruction so as to cope with the new professional challenges.

The two terms of competency and competence arise from different streams of though on the concept of fitness at work. The *competency* is a description of behavior and the *competence* is a description of work tasks or job outputs. A good paper on the differences is (Teodorescu, 2006).

The (formal) competence attributed to the accounting professional through a post occupied by labor contract in the case of employees or by taking on a mission based on service contract agreement in the case of freelancers, implies a certain professional skill acquired through studies and experience.

We shall discuss upon the various meanings of the notions of competence vs. competency or skill, and we shall focus upon presenting the competencies targeted to be achieved in accounting higher education.

### 2. Competency-Based Accounting Education

Dicţionarul Explicativ al Limbii Române<sup>1</sup> (DEX, 1998) provides us with two meanings of the term *competență*. On the one hand, *competență* (*competency*) is defined as a person's ability to decide upon something on the basis of a profound understanding of a problem and, on the other hand, the *competență* (*competence*) is defined as an authority's capacity to exert certain attributions. Thus, in the field of human resources, competence is considered to be a person's ability to solve certain tasks characteristic of a certain job.

In terms of education, we are interested in the professional or acquired competencies of the graduates of a certain program of study. Therefore, a clear distinction has to be made between competences as attributions to perform certain tasks and competencies as adeptness, skills, knowledge, abilities and attitudes acquired during a program of study.

The acquisition of such skills constitutes the purpose of any training-educational process. According to Philippe Meirieu, cited in (Pătruţ, 2004), *competency* is an attribute that is identifiable by calling into play one or several skills in a given conceptual or disciplinary field. "A competency cannot but be expressed through a skill and a skill cannot operate in a vacuum". Skills are defined in (Neacşu, 1990) as the "subject's demonstrated or potential ability to act, think, feel or become".

Modern education should first of all be formative and not informative, therefore a transition should be made from "to know" to to apply". There should be a transition from providing with information to guiding students towards acquiring certain competencies (Burja, 2006).

Competencies in acquiring, processing and transmitting knowledge constitute the main asset of a person but also of the community he is part of. Competencies are organized combinations of knowledge, skills and abilities acquired through learning (Neacşu, 2009), and in the learning process the pedagogic objectives should be established for a well-defined domain, as well as the adequate pedagogic means and the means for assessing the results. The learning processes differ according to the field, the initial knowledge level, age, personality etc.

Competencies allow the identification and solving of problems characteristic of a certain field, for example that of accounting, in various contexts. Romanian Law no. 288 of June 24, 2004<sup>2</sup> on the organization of university studies distinguishes between general and specific competences. Thus, the general competencies apply to any field of professional training, including that of accounting:

a) Collecting, analyzing, and qualitatively and quantitatively interpreting data from various sources or contexts to formulate arguments, decisions and concrete processes;

<sup>&</sup>lt;sup>1</sup> Explanatory Dictionary of Romanian Language

<sup>&</sup>lt;sup>2</sup> [http://www.phys.uaic.ro/site/wwwphys/l288.pdf]



- b) Using various ways of written and oral communication, including in a foreign language;
- c) Using informational and communication technologies;
- d) Assuming the responsibility of developing a personal program for self-improvement;
- e) Designing and carrying out the processes characteristic of the field.

A good paper on competency-based approach for accounting education in Romania is (Andone, 2007).

The law stipulates that at the level of each domain, the specialty competencies will be established by specific commissions. To that effect, the "Curricular quality and development" Commission of the Association of the Faculties of Economy in Romania (AFER), has established, for the academic year 2005-2006, the specific competencies for accounting and management informatics according to Table 2.1.

Professors Mihai Ristea and Pavel Năstase have presented, at the AFER Conference of Iaşi, April 27-28 2007, a proposition concerning the formal (attributed) competences of accounting professionals, expressed by job responsibilities, as follows:

a) For first-cycle graduates, license:

- Organizing, leading and performing basic accounting in economic entities, public institutions, insurance, financial and banking institutions;
- Organizing and practicing attributions and activities specific to internal control and internal audit;
- Preparing accounting papers to elaborate financial statements;
- Preparing and presenting general purpose financial statements, including consolidated financial statements consolidated for economic entities, public institutions, insurance, financial and banking institutions;
- Financial analysis and interpretation of general purpose financial statements, including the consolidated financial statements;
- Analytical calculation of costs, preparing budgets and the internal management of resources and results;
- Preparing, presenting and analyzing internal financial statements concerning costs, results and budgets execution;
- Organizing and carrying out basic accounting and reporting required for the establishment, reorganization and dissolution of companies;
- Designing, organizing and operating accounting and management computerized systems.

b) For second-cycle graduates, master:

- Financial, amiable and judiciary auditing;
- Retrospective and predictive analysis of financial statements in the process of consolidation and of taking efficient economic decisions;
- Designing, adopting and using advanced computerized systems in financial and managerial accounting;



- Conducting financial audits, accounting and tax consulting, in compliance with the specific regulations in the field;
- Providing professional services that imply accounting knowledge for natural and legal persons;
- Preparing accounting strategies and adopting accounting politics;
- Preparing, selecting and applying the strategies of corporatist government;
- The audit of management informatics systems;
- Didactic and research activities in the financial-accounting field;
- Consolidating and developing managerial accounting and business accounting;
- Evaluation of assets, property, companies (businesses), agricultural assets, market or offmarket assets to guarantee loans and for financial statements;
- Providing professional insurance services to improve the quality of accounting information;
- Diagnostic financial analysis applicable to the strategic management of accounting entities.

We believe that these, together with the ones in Table 1, are the competences (and not the competencies) that an accounting employee or a self-employed should have to fulfill the assumed mission. In other words, they are competences as attributions in practicing a profession, therefore the table does not present the professional skills acquired through study and accounting experience.

## Table 1. Specific competences for the Accounting and Management Informaticsspecialization, according to AFER (May-June 2007)<sup>3</sup>

Competences for university license	Competences for university master studies		
studies	Type MES – master in economy for specialists		
<ul> <li>Keeping financial and management accounting in public institutions, economic unities, financial and banking institutions;</li> <li>Making accounting papers for operations of merger, division, liquidation, groupings and acquisitions of companies;</li> <li>Performing specific tasks of financial control and audit for persons that organize such activities in compliance with the</li> </ul>	<ul> <li>Organizing and managing accounting in public, private, financial banking institutions;</li> <li>Preparing consolidated financial statements;</li> <li>Assisting the computer expert in designing management information systems;</li> <li>Configuring the analytical accounts used from the general chart of accounts, adjusted to the characteristics of activities carried out by a certain organization;</li> <li>Auditing management information systems;</li> <li>Organizing and carrying out accounting procedures characteristic of certain special</li> </ul>		
law;	operation: merger, dissolution, division,		
- Preparing financial statements			
and reports for public and private	etc.		

<sup>&</sup>lt;sup>3</sup> In May-June of 2007, AFER modified the list of competences in compliance with the International Accounting Education Standards, established by the International Federation of Accountants.



<ul> <li>institutions, financial and banking institutions;</li> <li>Using management informatics systems;</li> <li>Preparing and presenting regular fiscal and non-fiscal declarations required by various entities;</li> <li>Analyzing and using financial statements in the process of consolidating decisions.</li> </ul>	
consolidating decisions.	<ul> <li>Economic-financial analysis of organizations and evaluation of some of their patrimonial elements;</li> <li>Preparing financial-accounting strategies and</li> </ul>
	policies;
	Didactic and research activities in the field.

Some authors consider that in higher education, but also in high-school education, general competences are related to a certain field, for example that of accounting, and specific competences are related to a certain subject from the curricula and are formed over a delimited learning period (year, semester). Thus, general competences for accounting concern the application of techniques and procedures of operative and accounting recording in the patrimony of an organization, evaluating its performance on the basis of accounting the data these provide, identifying and preparing the financing sources, the use of accounting and financial information by the management of the organization.

From the viewpoint mentioned above, the competences specific to the topic of "Fundamentals of accounting" concern the identification of the types of companies as units of organizing accounting, defining the object of accounting, organizing the data from primary records, identifying and describing patrimonial elements, grouping them in active and capital structures, evaluating patrimonial elements, presenting the balance structure, the balance of accounts, the types of balance modifications, defining the elements of an account, presenting the operation rules of accounts, identifying the similarities and differences between the balance and the account, using the chart of accounts, setting the correspondence of accounts based on the accounting analysis, recording economic-financial operations using the accounting analysis.

Thus, aiming at the finalities of the process of higher education in accounting, these competences, hierarchized into general and specific, are formulated in the Specialization sheet,



respectively the Subject sheet<sup>4</sup>. For high-school level, the general and specific competences are stipulated int he analytical programs of the subjects of accounting<sup>5</sup>.

The competences of the accounting professional can be formed through university license, master and doctoral studies, as well as through programs of studies organized by universities, taking into account the fact that the field is constantly evolving therefore there is a need to permanently instruct accounting professionals. For example, within the program "Accounting Standards and Regulations", Professor Dr. V. Răileanu (Academy of Economic Studies, Bucharest) and his collaborators intend to develop knowledge, specific practices and competences required by specialists to standardize, organize and perform modern accounting. Researchers deal with forming subtle and dynamic competences that may ensure, in a responsible way, the most varied and complex achievements in the field of employed and self-employed accounting profession.

### 3. The International Accounting Education Standards

Since we are concerned with the competences that need to be formed for future specialists in accounting and management informatics, we would like to express our opinion according to which both general and specific competences should imply skills in operating a computer and financial-accounting computerized systems, as well as knowledge in the organizational and entrepreneurial field. To this effect, we consider that it is also important to discuss upon the point of view of the International Federation of Accountants.

The International Accountants Education Standards Board has published, in 2003, six International Accounting Education Standards, whose stipulations basically consist in: establishing a conceptual frame for the international standards of education; the requirements for accessing a professional educational accounting program (IES1); the content of curricula in professional accounting education (IES2); professional skills (IES3); professional values, ethics and attitude (IES4); requirements for practical experience (IES5); assessing professional skills and competences (IES6). In May 2004, IES7 occurred, "Continuous professional training: a permanent program for training and continuous improvement of the professional competence", and, subsequently, standard IES8, "Competence requirements for auditing professionals" (IFAC, 2007).

The International Accounting Education Standards are related to the concepts of professional skills, professional abilities, professional, ethical and attitudinal (behavioral) values required to

<sup>&</sup>lt;sup>4</sup> Documents that accompany the analytical program of a subject in higher education, starting with the 2007-2008 academic year; the Subject sheet is prepared for each subject from the curricula by the holder of the respective subject.

<sup>&</sup>lt;sup>5</sup> For example: [http://cnc.ise.ro/programe/liceu/servicii/Contab\_tur.alimpubXI-XII.doc]



demonstrate the competence (IFAC, 2007). Professional knowledge are those topics characteristic of the field of accounting, as well as of other subjects that all constitute the essential nucleus of accounting professionals' knowledge.

Professional skills consist of various types of abilities required to apply professional, adequate and efficient knowledge within a professional context.

Professional competence concerns the actions that professionals undertake to actually see if they can apply the requirements established by their task. In other words, competence refers to the ability of professing an active role, in compliance with the professional requirements, in relation to the real necessities of the (public) environment.

Whereas skills/competencies refer to the attributes required so that persons may profess as professionals, competence refers to actually demonstrating the professing of the profession. From this perspective, the features of the two concepts will be summed up as in Table 2.

IES2 is related to "The content of accounting professional training curricula". The study of accounting should be part of the pre-qualification program. This should be long and intensive enough so as to allow candidates to acquire the professional knowledge required for professional competence. The content of accounting training should contain accounting and financial knowledge, and other related knowledge; knowledge concerning organizations and businesses; knowledge and competencies related to information technology.

SKILL or COMPETENCY	COMPETENCE		
Key concepts:	Key concepts:		
<ul> <li>Traits;</li> </ul>	<ul> <li>Actions;</li> </ul>		
<ul> <li>Potential;</li> </ul>	<ul> <li>Real;</li> </ul>		
<ul> <li>To have.</li> </ul>	<ul> <li>To demonstrate.</li> </ul>		
May express the learning results	May express the professing results		
Types of skills	Types of competences		
<ul> <li>Professional knowledge;</li> </ul>	<ul> <li>The field of action of the professing</li> </ul>		
<ul> <li>Professional abilities;</li> </ul>	results in relation to the standards		
<ul> <li>Professional, ethical and behavioral</li> </ul>	of professional practice;		
values	<ul> <li>The field of action of the professing</li> </ul>		
	results in relation to the standards		
	of behavior.		

### Table 2. Skills and competences

The professional knowledge component completes general knowledge, intellectual, personal, interpersonal and communication skills, as well as organizational and managerial abilities developed by general training.



Referring to accounting, financial and related knowledge, the standard stipulates the following domains: financial accounting and financial statements; managing and auditing accounting; tax calculation; business and commercial law; audit and insurance; finances and financial management; professional and ethical values.

This knowledge constitutes the essential technical bases of a successful career in accounting, and the combination of the mentioned topics may differ from one sector of economy to another or from one job to another. The accounting curriculum changes constantly, as a response to the changes on the job market and in society. New topics occur while others change. Organizational and entrepreneurial knowledge provide the context in which accounting professionals will work, that is why a lot of knowledge in business, governmental and non-profit organizations, finance, the global environment of a business etc. is required (IFAC, 2007).

The new information and communication technologies have essentially changed the role of the accountant. According to the international authority, the accounting professional should not be limited only to using computerized systems and to practicing skills in operating the computer, but should play an important role as part of a team for evaluating, designing, developing and managing computerized systems.

The IES2 standard stipulates that the weight of the three domains of knowledge may vary from one training program to another, and their order may be chosen according to the competencies that are targeted to be formed through the respective program.

New topics may also be introduced, according to the requirements and necessities of the members of the International Federations of Accountants, for example CECCAR in Romania.

We shall further present our opinion concerning the accounting professional's competences that need to be formed through higher education, according to the particularities of our research.

Table 1 presents the attributions of an employed accountant or a self-employed. It does not show the professional competences that are acquired through study and experience, in other words, the table does not indicate what the specialist can do. On the other hand, Table 2 distinguishes between skills and competences as defined by the International Federations of Accountants. According to Table 2, the skills/competencies displayed on an action level become competences.

### 4. Learning Units Required For The Acquisition Of Accounting Competencies

For the purpose of our research, we intend to formulate the professional competencies acquired through the accounting higher education and to identify the learning units that the student needs in order to acquire them, within an interactive educational process.

We regard the following as general competencies:





- the capacity to use the acquired economic and financial-accounting language, in writing and verbally;
- the ability to use the methods and techniques characteristic of accounting in order to:
  - observe, find and record information concerning the organization's patrimony;
  - process accounting data and present information under the form of financial-accounting indicators;
  - analyze and interpret the information provided by accounting and formulate conclusions;
- the ability to consult, interpret and apply the financial-accounting regulations;
- practical abilities of using the new information and communication technologies in solving accounting issues<sup>6</sup>.

Thus, in our opinion, the competencies characteristic of the subject of "Fundamentals of Accounting" are:

1. Knowledge and understanding competencies (knowledge and adequate use of the notions specific to the subject): the ability to operate correctly with the following concepts:

- elements that define the status of accounting: object, scope, and accounting theories;
- accounting structures that define the financial position of the company and the ability to identify and classify them in terms of accounting representation;
- accounting structures that define the economic performance of the patrimonial entity and the ability to identify and classify them in terms of accounting representation;
- patrimonial entities as a sphere of action of accounting;
- the notions used in defining the various procedures of the accounting method: documents, balance, account, assessment, calculation, inventory, account balance etc.;
- financial-accounting indicators: turnovers, balance accounts, stocks, costs, prices, depreciation, taxes, accounting result and fiscal result etc.;
- 2. Competencies to explain / consult and interpret / demonstrate:
  - accounting principles (theoretical, methodological and organizational principles);
  - the procedures of the accounting method;
  - the meaning of various accounting information, of the financial-accounting indicators provided by accounting documents, records and financial statements;
  - various accounting regulations and other regulations that should be taken into account in organizing and practicing accounting;
- 3. Instrumental applicative competences:

<sup>&</sup>lt;sup>6</sup> This also includes skills concerning the development of financial-accounting computerized systems.



- The ability to organize the accounting of the patrimonial entity according to the organizational particularities and the conditions under which it operates;
- The ability to use accounting procedures and techniques in order to:
  - A. Observe, find and store information related to economic values:

1. The ability to identify and represent the economic values that are part of the patrimony, in terms of their destination and origin;

2. The ability to recognize (a) the patrimonial operations determined by the activity of the organization as recorded in justifying appropriate documents and (b) the effects of these operations upon the patrimony and, implicitly, the balance;

B. Process accounting data and obtain and present information under the form of financial-accounting indicators:

1. The ability to classify and store the effects of patrimonial operations by using the account system;

2. The ability to identify the efforts and effects generated on an economic-financial level by the organization's activity, to establish the results of these activities and to represent them in accounting;

3. The ability to determine various economic-financial indicators (costs, prices, pricelists, accounting result, fiscal result, taxes and other fiscal obligations etc.);

4. The ability to control and ensure the consistency between the (accounting) scriptural situation of the patrimonial elements and the real actual one;

5. The ability to regularly establish and communicate synthesis information to users, concerning the financial position and performance by preparing financial statements;

C. The ability to correctly apply the accounting regulations in organizing and performing accounting;

D. Theoretical and practical designing skills of implementing and developing financialaccounting computerized systems and of using the modern calculus techniques in solving accounting issues;

4. Attitudinal competencies: obeying the financial-accounting legislation; assuming responsibility for the suggested economic solutions; developing logical accounting thinking; developing ethical conduct.

The previously mentioned competences find expression, as we have seen, in certain skills. The work (Schwartz, 2009) treats various educational aspects related to accounting: finalities of education, accounting curriculum, the skills of the accounting specialist, creating a global course in accounting.

The Association of Accounting Technicians from the United Kingdom<sup>7</sup> presents some guiding lines for the use of the computer and all the information and communication means in accounting. The competency standards refer both to manual, traditional accounting, and to the

<sup>&</sup>lt;sup>7</sup> [http://www.aat.org.uk/]



computerized one. The competency standards also include procedures related to safety in working with a computer, data security and privacy (AAT, 2007).

In (Pătruț, 2006) we have presented a classification of accounting skills according to the general and specific competencies that they express. The acquisition of each skill will be achieved by a multitude of intelligent agents that will deal with various learning units presented in Table 3. These agents form a multi-agent system. In our research we extended the notion of agent to that of *s*-agent, a s-agent being a subsystem of intelligent agents with specific pedagogic tasks.

Figure 2 presents one part of the multi-agent described in (Pătruț, 2006). In our intelligent system, we shall first of all approach the problem of accounting analysis.

According to (Gârlişteanu, 2007), analysis is defined as a general methodical procedure used to know in detail the phenomena that constitute its object of study. It consists in deconstructing an economic process, phenomenon or operation into its component parts, examining them and establishing the internal connections. Analysis involves a transition from the general to the particular.

#### 1. Economic values and their classification 14. Correspondent accounts; into active structures; 15. Accounting analysis - concept; 2. Economic values and their classification 16. The accounting analysis algorithm; 17. Illustration of accounting analysis; into capital structures; 3. Accounting representation by balance of 18. Accounting formula – concept; 19. Types of accounting formulas; economic values; 4. Balance equality mathematical 20. Bookkeeping; in 21. The accounting article - concept; expression; 5. Types of balance modifications 22. Types of accounting articles; determined by economic operations; 23. Registering economic operations 6. Digital representation value 24. The ledger – systematic registry; of movements as a mobile balance; 25. Forms of the ledger; 7. The notion of account; 26. Trial balance - concept; 8. The structure (elements) of the account; 27. Types of trial balance; 9. The form of the account; 28. The models of trial balance; 10. The operation rules of accounts; 29. Annual financial statements; 11. Synthetic and personal accounts; 30. Other procedures of the accounting 12. Double counting; method. 13. The correspondence of accounts;

### Table 3. Learning units for "Fundamentals of accounting"

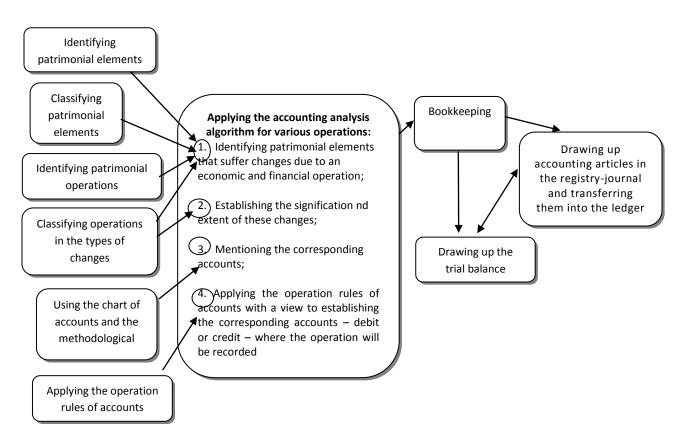
According to (Horomnea, 2005), accounting analysis represents the argument conducted upon each economic operation recorded in the appropriate document with the purpose of determining the correspondence of accounts. Accounting analysis is, therefore, a logical process that consists of the document-based analysis of each economic or financial operation



by separating it into its component elements with a view to establishing the corresponding accounts and the part – debit or credit – where the respective operation will be recorded simultaneously and with the same sum (Petriş, 2005). Because accounting analysis is a general method and implies the covering of several stages, we may speak about an algorithm of accounting analysis (Figure 1):

I	II	111	IV		
Identifying patrimonial elements that suffer changes due to economic and	Establishing the signification and extent	Mentioni ng the correspon ding	Applying the operation rules of accounts with a view to establishing the corresponding accounts – debit or credit – where the analyzed		
financial operation;	of these changes;	accounts;	operation will be recorded.		

### Figure 1. The algorithm of accounting analysis



# Figure 2. Fragment from the multi-agent system for teaching the accounting analysis algorithm

**Note:** The transition to the Anglo-Saxon system in Romanian accounting and adopting the International Accounting Standards has led to changes in vision concerning certain



significant terms from accounting. The well-known equation of the balance Assets = Liability or Assets = Equity + Debts is now reformulated in the equation Assets - Debts = Equity (IFRS, 2005), and the Anglo-Saxon accounting uses neither the term of *patrimony* nor, implicitly, that of *patrimonial entity* or *patrimonial elements*, but that of *organization*. According to the accounting school of Iaşi (Petriş, 2005), (Horomnea, 2005), the basic equation is Means = Resources, the same economic asset being regarded from two perspectives, that of its destination and that of its origin. Whether the transition from one formulation to another is a matter of content and not only one of form, this discussion does not constitute the subject of our research which is based on the problems of teaching accounting and not on the content of accounting as such.

An accounting analysis illustration is the following (Figure 3):

"It results from the statement the cashing in of the value of the invoice no. 400 from client C, the sum of 5000 lei".

1	П	111	IV
Cash at bank (A)	+ 5000	5121 "Bank accounts in lei"	D
Trade receivables	- 5000	4111 "Clients"	С
(A)			

### Figure 3. An illustration for accounting analysis

*The accounting formula* is the means of graphically representing each economic or financial operation in the corresponding accounts on the basis of double counting, in the form of equality of value. It is the simplified form of the value balance relation established between two or several accounts through the debiting or crediting process (Horomnea, 2005).

Accounting formulas can be simple, compound or mixed. The simple accounting formula is made up of a corresponding debiting account and a corresponding crediting account.

Example:

To collect a bill from a customer in the bank account:

	5121 "Bank accounts in lei"	=	4111 "Clients"	50.000 lei	50.000 lei
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The compound accounting formula may be made up either of a single debiting account and several corresponding crediting accounts, or of a single crediting account and several corresponding debiting accounts.

Example<sup>8</sup>:

a) For sale of goods worth 10.000 lei, the invoice also containing the VAT, with a quota of 19%:

4111 "Clients"

% 11.900 lei

<sup>&</sup>lt;sup>8</sup> Illustrations from (Pătruț and Tataru, 2007)



707 "Profits from the sale of goods" 4427 "Collected VAT" 10.000 lei 1.900 lei

b) For acquisitions of raw materials worth 10.000 lei, the invoice also containing the VAT 1.900 lei:

%	=	401 "Suppliers	11.500 lei	
301 "Raw materials"				10.000 lei
4426 "Deductible VAT"				1.900 lei

The mixed (summary or parallel) accounting formula is made up of two or several corresponding debiting accounts and two or several corresponding crediting accounts.

Example:

To supply a commercial unit with goods, by retail, according to the invoice of 10.000 lei, by practicing a commercial addition of 20%

%	=	%	<u>16.180</u>	<u>16.180</u>
301 "Goods"		401 "Suppliers"	14.280	11.900
4426 "Deductible VAT"		378 "Price differences for goods"	1.900	2.000
		4428 "Non-deductible VAT"		2.280

### 5. Conclusions

This paper has presented the definitions of the concepts of competency and competence, concerning the education in accounting, in universities from Romania, according with the international standards and international organizations. We consider the problem very complex, and this needs further studies.

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### References

- 1. Association of Accounting Technicians. 2007. <u>http://www.aat.org.uk/</u> (last accessed December 1, 2012).
- 2. Andone, I and Ţugui, Al. 1999. *Sisteme inteligente în management, contabilitate, finanţe, bănci şi marketing*. Editura Economică; Bucureşti.
- 3. Andone, I. 2007. "The Competency-based Approach for Accounting Education in Romania". *Analele Științifice ale Universității "Alexandru Ioan Cuza" din Iași*, Tomul LIV Științe Economice.



- 4. Burja, V., Burja, C., Voiculescu, F., Voiculescu E. 2006. *Didactica ştiinţelor economice. Ghid metodologic cu caracter aplicativ*. Bucharest: Irecson.
- 5. Academia Română. 1998. *Dicționarul explicativ al limbii române*. Academia Română. Bucharest : Univers Enciclopedic.
- 6. Gârlişteanu, I. 2007. *Bazele contabilității I*. Craiova: Universitatea din Craiova, D.P.P.D.
- 7. Horomnea, E. 2008. *Bazele contabilității. Concepte și aplicații*. Iași: Sedcom Libris.
- 8. Horomnea, E., Tabără, N., Budugan, D., Georgescu, I., Bețianu, L. 2005. *Bazele contabilității*, Iași: Sedcom Libris.
- 9. International Federation of Accountants 2007. <u>http://www.ifac.org</u> (last accessed November, 1, 2012), <u>http://www.ifacnet.org</u> (last accessed November 1, 2012).
- 10. *Standardele Internaționale de Raportare Financiare.* 2005. Bucharest : CECCAR.
- 11. Legea contabilității nr. 82 din 24 decembrie 1991, republicată cu modificările și completările ulterioare. 2005. Bucharest: Monitorul Oficial nr. 48/14 ian. 2005.
- 12. Neacşu, Gh., Marcus, S., Gherghinescu, R., Săucan, D. Şt. 1995. "Un profil factorial posibil al precompetenței didactice". *Revista psihologică*.
- Pătruţ, B., Adam R. 2006. "Contabilitatea şi tehnologiile agenţilor inteligenţi". I. Andone, N. Tabără (Eds.) *Contabilitate, tehnologie şi competitivitate*. Bucharest: Editura Academiei Române, 540 pag., ISBN (10) 973-27-1378-X, ISBN (13) 978-973-27-1378-5.
- 14. Pătruț, V., Tataru. S. 2007. Introducere în contabilitate, pentru toți. Bacău: EduSoft.
- 15. Pătruţ, V. 2004. "Contribuţii la formularea competenţelor de specialitate ale profesionistului contabil". *Studii şi cercetări. Seria ştiinţe economice*, Bacău: Alma Mater, Universitatea din Bacău
- 16. Petriş, R. 2005. *Bazele contabilității*. Iași: Gorun.
- 17. Răileanu, V. (coord.), Manea, L., Pitulice, I., Rapcencu, C., Jinga, G. 2002. *Consilier contabilitate*, Bucharest: Rentrop & Straton.
- 18. Răileanu, V. 2007. *Contabilitatea firmei pe baza Standardelor Internaționale de Raportare Financiarã*. Bucharest: ASE.
- 19. Schwartz, B. N. (ed.) 2009. *Advances in Accounting Education Teaching and Curriculum Innovations*. Indiana University-South Bend, IN, USA.
- Teodorescu, T. 2006. Competence versus Competency: What is the Difference? Published online in Wiley InterScience (www.interscience.wiley.com) • DOI:10.1002/pfi.027, <u>http://rescomp.de/resources/competence-vs-competency-the-differencespub.pdf</u>. Last accessed December 20, 2012.