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RESEARCH ON THE ROMANIAN PUBLIC SECTOR ENTITIES' ACCOUNTING SYSTEM

***Abstract.** Public sector represents one of the main branches of the economy because of its importance and particularities: the mechanism of generating, allocating and use of financial resources, the important number of stakeholders, the heterogeneous structure, complexity and heterogeneity of services delivered, asymmetric information, and vulnerability in front of the internal and external economic and politic environment. Thus, accounting system must be developed as to insure a relevant, transparent, pertinent and integrated information flow as well as the interface between public sector entities and stakeholders. The research presented is divided into two components. The first component includes conceptual approaches concerning the accounting system on a national and international level, as well as an analysis of the evolution of the Romanian accounting system for public sector entities. The second component includes a questionnaire-based research which aimed to investigate the opinion of public sector accounting professionals regarding the in force accounting system.*

***Key words:** public sector, accounting professionals, accounting regulations, Romania, cluster, regression.*

JEL Classification: M41, H83

1. Introduction

The development of public sector accounting system on an international level is a two-dimension process. The first dimension is the adoption of a new model for managing public sector, entitled New Public Management (NPM). Bartoli(2009) defines NPM through the following concepts: efficiency, deregulation, market, financial control, decentralization, flexibility, networks, contracts, change governing, changes local/central, leadership, accountability, service specificity, hybridization, public/private methods. From the accounting point of view, NPM introduces double-entry accounting concept in the public sector. The second dimension is the issuance of International Public Sector Accounting Standards (IPSAS). By issuing IPSAS, the International Public Sector Accounting Standards Board (IPSASB) aims to improve quality and transparency of public sector financial reporting by disclosing better information for financial management and decision process in the public sector (IPSASB, 2014).

At European Union (EU) level, the adoption of NPM as approach in developing public sector accounting system is completed by the introduction of European System of Accounts (ESA 95). ESA represents a statistical frame on a macroeconomic level for public administration and non-public administration sectors' accounting in EU and it is based on accrual accounting (European Commission, 2013). In this respect, EU agrees the adoption of a unique set of accrual accounting standards for public sector in member states.

Although IPSAS is applied for accrual based accounting at EU's level, the problematic of its adoption is a controversial issue. One argument in this respect is that of a relatively small number of member states that inserted links towards IPSAS in their national public sector accounting standards, that is fifteen (European Commission, 2013). Internationally, IPSAS are recognized for the added value they bring to financial reporting inside public sector and to the decision making process based on responsibility, opportunity, credibility and transparency. The results of public consultation regarding IPSAS adequacy for member states validated the fact that IPSAS are an incontestable framework for preparing public sector accounts harmonized at EU's level, but they have also evidenced the difficulty of applying IPSAS in their present format (European Commission, 2013). Concerning these aspects, European Commission launched the process of issuing its own accounting standards entitled European Public Sector Accounting Standards (EPSAS) based on IPSAS. Under European Commission vision (2013), adoption of EPSAS reduces significantly the complexity of methods and procedures for preparing data that are to be transformed on a quasi-statistical base as well as the risks concerning the reliability of data notified by member states and published by Eurostat.

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In Romania, the premise of developing public sector accounting system has been represented by its adherence to EU as a full member state. Thus, beginning with 2006, Romania abandoned the old accounting system and adopted a new one, inspired by IPSAS. Transition from a simplified accounting system to a complex and innovating one was realized quite rapidly, with an insufficient period for experimental application of the new regulations. Therefore, gaps and inadvertencies of new regulations have not been corrected and opinions of academics and professionals have remained echoless. Year 2014 marks a new stage in the development of the accounting system of public sector entities. This was not a pre-tested stage and it is focused mainly on technical aspects that resulted in an increased work volume and information processing time, and less on professional judgment. Recurrent changes of accounting regulations applied since 2014 emphasize their incapacity of answering the real regulatory needs of public sector entities of Romania.

As a full member state of EU, Romania has the obligation of fulfilling EU's requirements in what public sector accounting is concerned. Considering that the present trend for member states is that of adopting EPSAS, we have to ask: is Romania prepared to implement these standards? In this particular context, the present research aims to identify the degree in which the in force accounting regulations correspond to the real needs of public sector entities, to the difficulties and elements that bring added value.

2. International literature review

Governmental accounting or public sector accounting is one issue that preoccupied academics and professionals and there are a lot of papers dedicated in the accounting journals worldwide. Accrual accounting versus cash accounting for public sector entities is one interesting polemic between professionals (either academics or practitioners) especially after the issuance of International Public Sector Accounting Standards (IPSAS).

Papers published in journals worldwide have different topics: innovations brought by new accrual accounting; criticisms of adopting accrual accounting for public sector; standards and conceptual framework; social and environmental reporting for public sector; case studies of countries or local governments adopting accrual accounting; involvement of private sector in public sector changes as consultants and so on.

Christiaens et al(2015) have developed a comparative study concerning the level of IPSAS adoption worldwide. Results of the study reveal an important evolution towards IPSAS in 2012 compared to 2009 but also adoption of IPSAS is a long term implementation process. Many studies (Carnegie & West, 2003; Hepworth, 2003; Carlin, 2005; Lapsley et al, 2009; Arnaboldi&Lapsley, 2009, etc.) address questions regarding the appropriateness and the implementation model for accrual accounting in

public sector due to its particularities: recognition and evaluation of non-financial resources controlled by public sector entities (such as museums' collections); adoption of implementation decision without a preliminary research of the social, political and management context; establishment of a series of preconditions necessary for a successful implementation; implementing accrual accounting only for certain levels of public sector entities and so on.

Luder (2000) reveals the importance of transition to accrual accounting inside public sector. Accrual concept increases relevance, reliability and national comparability of the ratios assessing financial situation of governmental authorities. However, the translation of accounting concepts used by private sector companies to public sector entities without adapting them to their particularities is not desirable. Carnegie & West (2003) state that assigning money value (as private sector does) to non-financial resources controlled by governmental entities is a misleading accounting practice. From an Australian point of view, they plead for an adaptation of accrual accounting practices so that they can fit the specificity of public sector entities, especially those that have social objectives to outcome.

Public sector financial results are influenced by accrual accounting and it is not always in a positive way. Starting from the example of provisions for liabilities, Hodges & Mellet (2003) explain that managers in public sector entities could wish to avoid performance targets established on accrual concepts and would want to focus on generating cash needed for services when these are due for payment. This issue raises again the question if managing public sector as a business is the right policy to implement.

There are many authors that analysed the impact of accrual accounting on a national level. These studies enrich the literature with national experiences and reveal weak and strong issues of governmental authorities' policy of implementing accrual accounting/IPSAS. Connolly & Hyndman (2006) developed a case research of Northern Ireland. Based on semi-structured interviews with professionals involved (accountants), the authors found out that implementing accrual accounting in public sector entities of Northern Ireland is not as successful as it was presented by authorities in the pre-implementation stage. It is different (in the expensive way) from what it was presumed to be in terms of cost and timing and benefits to the date of the study are few.

237 Italian local governments have been empirically studied under the aspect of implementing accrual accounting by Nasi&Steccolini (2008). Results show a negative attitude of preparers of financial statements with regard to the accrual accounting which is not seen as a useful instrument. Although its purpose was that of increasing accountability and transparency in the public sector, from the most Italian professionals' point of view, accrual accounting is not connected to the internal needs or managerial control systems. However, the study revealed that there are CFOs

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opened to change and interested in the benefits of the new accounting system and there are municipalities that struggle to be in the first line of the reform battlefield. Thus, authors conclude that adopting accrual accounting is not a one-step process and legal authorities should consider several variables (such as CFOs' competencies) if they want a successful outcome of the implementing process.

Paulsson (2006) used interviews to get the opinion of professionals in central government in Sweden. The use of accrual accounting revealed several issues that are still to be solved, among which the connection between the use of accrual accounting and phases of budgeting process or specific decisions and the existence of large variations in the use of accounting disclosed information. The process of budgeting and policy making uses less accrual accounting when budget is prepared on a cash basis.

Arnaboldi&Lapsley (2009) analysed capital asset accounting in local government in UK. Their research, a comprehensive one (as it contains a combination of research methods), proved that, for UK, the intended purpose of bringing extra quality to the accounting information disclosed by local authority services has not been achieved. Auditors seem to be the most interested in the annual reports prepared by local authorities, even if transition to accrual accounting has had as main aim the increase of accountability and transparency for public sector management.

Obviously, literature review exposes the fact that accrual accounting is a "self-evident and problematic reform" (Lapsley, Mussari&Paulsson, 2009) or "is something that few seem to understand and over which even fewer seem to get worried about the commitment of relatively scarce public funds to a relatively mysterious project which has a questionable direct capacity to deliver better public services..." (Humphrey, 2007).

3.National literature review

Discussing literature for public sector accounting from Romania, approaches are limited. The conformity of reporting models for financial performance is the result of a study performed by Ștefănescu et al (2010) who considers that the conformity is mainly used for names, presentation format, and reporting bases and less for concepts and accounting policies.

As to the relevance of reports disseminating financial performance, research results based on investigating the opinion of hospitals' managers revealed the following hierarchy: balance sheet and budget execution account (5,49) points out of 6 the maximum, patrimonial profit and loss account (5,34), situation of cash-flows (4,63), situation of modifications in the structure of assets and liabilities (4,15) (Ștefănescu et al, 2012).Also, authors consider that research results can represent an alarm signal to national standards setters in respect of continuing the process of public

sector accounting development and consequently the convergence of financial performance reporting with European and international trends.

Although they admit the incontestable advantages of accrual accounting, Ștefănescu et al (2012) appreciate that, for public sector in Romania, the process of adding cash accounting to accrual accounting and incipient orientation of national regulations towards IPSAS did not formulate models for reporting financial performance that are to respond to the real information needs of users. Considering the interference of accounting policies for fixed assets with those adopted on the international level, Turlea et al (2011) states that this is limited to the conceptual level and relative in what accounting treatments and financial reporting are concerned.

Another innovating concept for public sector accounting in Romania is performance by coercion. Performance by coercion has been defined as it follows: the degree in which the value restriction of a budgetary revenue X leads to the appearance/increase of a category of extra budgetary revenue or to the restraining entity's activity (Ștefănescu et al, 2011).

4. Analysis of the accounting system of public sector entities in Romania

At present, the accounting system of public sector entities in Romania has made its trend towards an international approach. Over the last years, the accounting system has been under significant development processes but few in their number, performed at long distances in time and with no gradual issuance.

Until 2005, public sector entities accounting system has been characterized through the following elements: recognition and transactions and events based on cash accounting, a simplified chart of accounts, with a small number of simple-structured accounts; the use of budgetary classification in addition to the expenses and revenues' accounts; a set of financial statements that comprised only of a small number of components.

Year 2006 innovates significantly public sector accounting, based on IPSAS. As preparing steps, before 2006, new budgetary classifications were adopted according to the European System of National and Regional Accounts (ESA 95) and Government Finance Statistics (GFS 2001), assets were delimited in two categories: belongings of public/private domain of the state/territorial-administrative units and new rules for revaluation and depreciation of fixed assets were established. Under these circumstances, adoption of the Order of the Public Finance Minister no. 1917/2005 for the approval of Methodological regulations regarding the accounting organization and management of public entities, Accounts planning for the public institutions and the instructions to apply it (OMFP 1917/2005), introduces the following innovating elements: supplementing cash accounting with accrual accounting; concepts (patrimonial result, equity, impairment adjustments, provisions, fair value etc); general accepted accounting principles according to accrual accounting;

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classification of expenses by nature or function, and revenues by nature or source; a complex chart of accounts according to accrual accounting; a complex set of financial statements; rules for evaluation of assets, liabilities and equity; recognition of revenues and expenses; specific accounting treatments for assets, liabilities and equity; accounting options for evaluating inventories when taking them out of entity; periodical determination of patrimonial result; introduction and development of professional judgment.

International influences are found in the OMFP 1917/2005 through the partial adoption of elements from the certain IPSAS. The efforts of national accounting regulators of building an accounting system convergent to IPSAS proved to be insufficient.

In order to answer the reporting requirements of European and international authorities, year 2014 formulates a new dimension of the accounting system for public sector entities. The adoption of Order of Public Finance Ministry no.2021/2013 for modifying and completing OMFP 1917/2005 introduces the following innovating elements: the development of analytical accounting; elimination of some accounts and introduction of new ones; the distinct introduction of budget execution result based on the typology of financing sources; modification of functioning rules for certain accounts, evidencing net cash payments and cash in treasury accounts, based on financing sources; modification of accounting judgment attached to closing financing.

A profound analysis of the actual accounting system for public sector entities reveals several particularities: limited completeness and frequent changes of regulations issued, major changes in regulations are realized at large intervals in time (over 5 years), the prevalence of technical aspects of accounting over professional judgment, prevalence of the principle of information maximization generates difficulties for stakeholders in the decision process, maintenance of obsolete concepts, existence of conceptual incongruence, financial reporting orientation towards government authorities and less to the citizens.

5. Research methodology

The positive research developed in this paper is based on questionnaires distributed to public sector accounting professionals. The sample was formed of professionals that participated to training courses in the field of public sector accounting. The training courses were organized by the Romanian accounting profession organism in four Romanian counties (Bihar, Buzău, Gorj, Ialomita) in the period March – April 2016. The sample consisted of 106 individuals, all questionnaires being filled in and thus validated. The professionals were employed in entities from different public sector domains: health, education, public order and safety, justice, culture and municipalities. The diversity of the professionals' current operations is useful when trying to extrapolate the results to a larger area of public sector entities.

We used descriptive statistics for age and experience. Cluster analysis was used in order to group all 106 questionnaires answers in several major classes and identify hidden patterns of each class. The cluster analysis helps us understand, for instance, what profile have the professionals with many years of experience, who ask their colleagues for guidance. Also, the cluster analysis results led us to identify the connections between variables and to develop the next model.

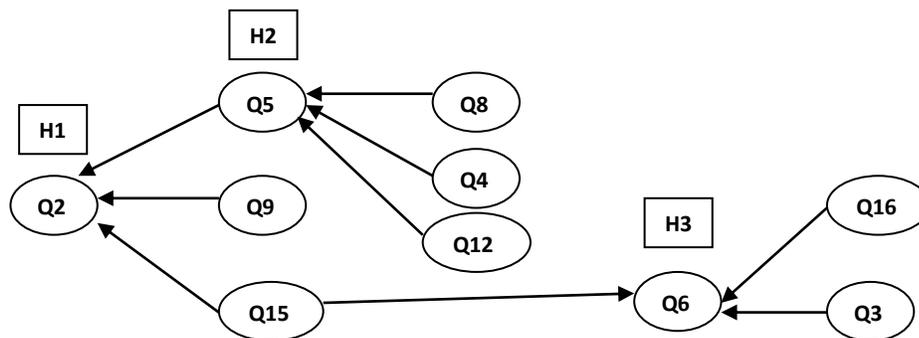


Figure 1. Conceptual model and hypotheses

The variables considered for the conceptual model and presented in Figure 1 are:

Indicators	Variables
The view toward accounting regulations	Q2
The way that regulations modifications would help accountants and the public institution they work for	Q3
Necessary modifications of accounting regulations	Q4
Professional skills development	Q5
The view toward the utility of the new Accounts Chart adopted	Q6
Software utility	Q8
The number of people/entities that accountants ask for help	Q9
IPSAS utility in Romania	Q12
Accountants age (in years)	Q15
Accountants experience (in years)	Q16

Table 1: Explanation of variables

There are 3 major hypothesis that were formulated in order to better understand what are the factors that influence the behavior, the professional development of different views of accountants toward the public sector accounting system in Romania. These hypotheses are synthesized in Figure 1:

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- **H1:** The view toward accounting regulations is influenced by the way that professional skills are developed, the number of people/entities that accountants ask for help and the accountants' age.
- **H2:** The accountants' opinions about the development of their professional skills are influenced by the software (most used) utility, the modifications of accounting regulations that they consider to be a necessity and the utility of IPSAS regulations in Romania.
- **H3:** The view toward the utility of the new Accounts Chart adopted in 2013 is influenced by accountants' age, accountants' experience and the way that regulations modifications would help accountants and the public institution they work for.

6.Results

Considering all 106 questionnaires we can say that the respondents are different, taking into account their age, gender (97 of accountants are women) and experience. From this point of view, the results obtained are representative to the statistical population (this is one of the hypothesis made here) and reflects the reality.

Table 2. Descriptive statistics for age and experience

Moments AGE				Moments EXPERIENCE			
N	106	Variance	66.707	N	106	Variance	90.167
Mean	43.547	Coeff Variation	18.755	Mean	12.245	Coeff Variation	77.545
Quantile	Estimate	Quantile	Estimate	Quantile	Estimate	Quantile	Estimate
100% Max	58	50% Median	45	100% Max	38	50% Median	9,5
99%	58	25% Q1	39	99%	37	25% Q1	4
95%	57	10%	32	95%	30	10%	2
90%	56	5%	30	90%	26	5%	1
75% Q3	49	1%	24	75% Q3	20	1%	1

Table 2 above shows the descriptive statistics for age and experience variables. The average age is about 43 years, half of the respondents are under 45 years, the minimum age is 24 while the oldest respondent is 58 years old. On the other side, highly correlated with the age, the experience is varied, from 0 years to 38 years. The average experience is about 12 years (that indicates high qualified workforce) and half of the public employees have over 9.5 years of experience.

On the other side there is smaller amplitude between the maximum value and the minimum value for age than for experience. This aspect is revealed by the

coefficient of variation, that is 18.75% for age (showing a statistically representative average and standard deviation value) and 77.54% for experience (that proves that there are dispersed values, far from the average value).

Describing the rest of the variables generated by questionnaire, we can say that more than a half of the respondents come from education field, while 34% of all of them work in municipalities. More than 59% of the professional accountants have a neutral opinion about the way that accounting regulations answer for management or external needs for information, while 10% of them have a negative opinion. On the other hand, 60% of them consider that, in most cases, the frequent changes or notes about accounting regulations are good for the institution they work for, while 32% believe them to have a negative influence for their activity.

Among the changes inside accounting regulations, 74% of the interviewed population considers that the simplification of accounts structure would be a necessity for them, 56% agree with the decrease of the number of accounts and over 54% of them consider that the procedures they use are not clear and they could be improved. During the financial year, over 57% of accountants consider that the financial rules should be constant, without changes (one can't change the rules during the game).

From another point of view, most accountants have a neutral opinion about how the actual accounting regulations contributes to their professional development, while 58% of them consider that the new chart of accounts issued in 2013 is not as useful as the old one (period 2006 - 2013). A conclusion that can be drawn here is that professional accountants in public sector entities do not understand the role of professional judgment or they are not allowed (due to very detailed legislation) to use it. However, Pitulice&Stefănescu (2016) when analyzing the reports of Romanian Territorial Accounts Chambers for 2014 discover severe financial-accounting irregularities that affect the true and fair view of financial statements prepared by public sector entities. This could mean that accountants in public sector entities do not fully understand the role of exercising professional judgment in their daily activities. The management involvement is very important in a public institution and a manager has to analyze financial statements. According to accountants, not all managers study carefully the financial accounts (like the explanatory notes to the financial statements - 64% of managers, or even the Balance Sheet - 32%).

Most of accountants are satisfied of the software they use (about 89% of them). Over 80% of accountants do not know or partially know the International Public Sector Accounting Standards (IPSAS) and 63% of them cannot give an opinion about the IPSAS implementation in Romania.

This finding is consistent with the results of the study performed by KPMG Romania and Bucharest University of Economic Studies during 2013 on transparency of financial reporting in Romanian city and town halls. In this study, 84% of the respondents consider that IPSAS would improve credibility, relevance and

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transparency of public reporting and would increase the entities' cost and financial performance accountability. However, professional respondents in the sample do not seem to have enough knowledge about IPSAS, justifying the lack of information through a poor allocation of resources for training in their institution (KPMG&BUES, 2013).

One of the most interesting questions is related to the person or institution that provides advisory work when it needed. Almost 86% of the professionals accountants go to their colleagues from other public sector entities, in case they have a situation they cannot manage, about 21% ask the Minister of Finance. 20% of the interviewees ask the accounting profession organism and only 15% of them go to the manager of the institution. In this respect, relating to the question regarding manager's attributions, the communication between hierarchically levels in a public institution is very poor and may lead to unpleasant situations.

Dendrograma clasificarii prin metoda Ward

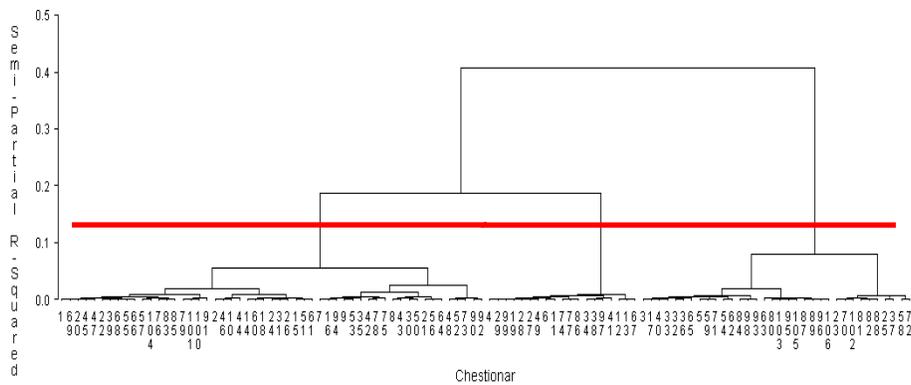


Figure 2. Classification dendrogram
Source: SAS Output

Figure 2 from above show the classification dendrogram (or the classification tree), that is made using Ward hierarchically method, taking into consideration all variables obtained from questionnaires answers. The red line divides the graph in 3 major classes.

The hierarchically classification method was used in order to identify the number of classes that should be considered, but for the allocation of each accountant to a class and describing the profiles, K-Means algorithm was used.

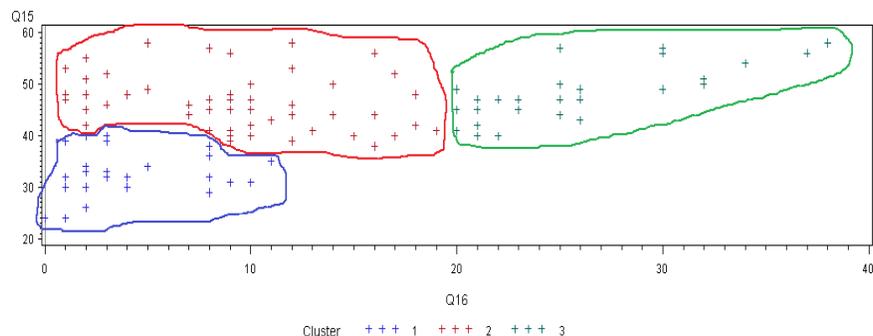


Figure 3. Classes representation according to age (Q15) vs. experience (Q16)

Figure 3 is the most suggestive image of all 3 classes described below:

- cluster 1 has 26 accountants; they are relatively young (24-40 years old), with a small level of experience (under 10 years); 81% of them work in an education entity or a municipality, 77% of them consider necessarily the simplification of accounts, over 69% of them consider that the procedures they use are not clear and it could be improved; half of accountants consider that having accounting monograph specific to their institution is not a necessity; most of the entities' managers (38%) require very often the Balance Sheet for analyzing;
- cluster 2 has 53 accountants; they have ages between 40 and 58 years old, with a level of experience between 0 and 20 years; 91% of them work in an education entity or municipality, 75% of them consider the simplification of accounts would be a necessity, about 55% of them consider that the procedures they use are not clear and it could be improved; most of accountants (62%) consider that regulations for preparing financial statements are clear and do not need further modifications;
- cluster 3 has 27 accountants; with ages over 40 years old and a level of experience over 20 years; 96% of them work in an education entity or municipality, 70% of them consider the simplification of accounts would be a necessity, over 63% of them consider that the procedures they use are clear enough; 63% of accountants consider a necessity having an accounting monograph specific for the institution they work for; 56% of accountants consider that regulations for preparing financial statements require more specific instructions; most of entities managers (37%) do not require the Balance Sheet for analysis.

Half of the respondents, equally distributed inside the three clusters, consider that recommendations of the auditors of Accounts Chamber of Romania improve the performance of using and financial managing of resources. However, one of the opened questions delivered inside the questionnaire referred to the difficulties encountered when implementing recommendations of the Accounts Chamber's

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auditors. The most frequent difficulty revealed by respondents is the small number of accountants in the financial departments and the scarcity of their professional training. Other difficulties enumerated were the large volume of work, the frequent modifications of legislation in force, the rigidity of recommendations, the degree of subjectivity involved by law's provisions and the impossibility of implementing recommendations as for some of them there are not any legal accounting solutions.

40% of the respondents consider that the present accounting regulations develop professional judgment at an average level. Half of this percentage is represented by accountants in cluster 2 that is over 40 years old but with no more than 20 years of experience. We can conclude that experienced accountants, that faced the evolution of public sector accounting regulations so far, would want more freedom in the accounting choices. This finding is convergent to the opened answers requested in question 14 where professionals were asked to discuss the possibilities of improvement for the accounting legislation in force. Almost 48% of the respondents declared they would appreciate a simplification of legislation which consequently would leave them more space when adopting accounting choices.

Correlation Matrix										
	Q2	Q3	Q4	Q5	Q6	Q8	Q9	Q12	Q15	Q16
Q2	1.000000	-0.314570	-0.149584	0.512334	-0.090856	-0.168338	0.464200	-0.230921	0.382422	0.163314
Q3	-0.314570	1.000000	-0.011650	-0.194169	0.278298	0.072396	-0.218752	0.190610	-0.121353	0.021690
Q4	-0.149584	-0.011650	1.000000	-0.385412	0.005633	0.016767	-0.120190	-0.045913	-0.109233	0.056550
Q5	0.512334	-0.194169	-0.385412	1.000000	-0.062860	-0.291326	0.256933	-0.320125	0.255274	-0.010340
Q6	-0.090856	0.278298	0.005633	-0.062860	1.000000	0.049218	0.042859	0.129895	-0.324945	-0.317823
Q8	-0.168338	0.072396	0.016767	-0.291326	0.049218	1.000000	-0.129663	0.162274	-0.150409	-0.149094
Q9	0.464200	-0.218752	-0.120190	0.256933	0.042859	-0.129663	1.000000	-0.142481	0.055054	-0.063721
Q12	-0.230921	0.190610	-0.045913	-0.320125	0.129895	0.162274	-0.142481	1.000000	-0.068605	0.088159
Q15	0.382422	-0.121353	-0.109233	0.255274	-0.324945	-0.150409	0.055054	-0.068605	1.000000	0.438902
Q16	0.163314	0.021690	0.056550	-0.010340	-0.317823	-0.149094	-0.063721	0.088159	0.438902	1.000000

Figure 4. Correlation matrix of considered variables

Figure 4 from above show the correlation matrix between the variables considered in the hypothesis. Positive correlations are observed between the view toward accounting regulations and the development of professional skills, age and experience, the number of people/entities that accountants ask for help and the view toward accounting regulations. These correlations come to enforce the hypothesis, along with the tests from below.

<i>Hypothesis 1: $Q2=C(1)+C(2)*Q5+C(3)*Q15+C(4)*Q9$</i>				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.841893	0.407728	2.064841	0.0429
C(2)	0.274340	0.076350	3.593180	0.0006
C(3)	0.025352	0.008756	2.895470	0.0051
C(4)	0.375556	0.098717	3.804351	0.0003
R-squared	0.450680	Mean dependent var		3.400000
Adjusted R-squared	0.425711	S.D. dependent var		0.787585
S.E. of regression	0.596846	Akaike info criterion		1.861131
Sum squared resid	23.51088	Schwarz criterion		1.989616
Log likelihood	-61.13957	Durbin-Watson stat		1.790907
<i>Hypothesis 2: $Q5=C(1)+C(2)*Q8+C(3)*Q4+C(4)*Q12$</i>				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	5.915735	0.515805	11.46893	0.0000
C(2)	-0.339282	0.148230	-2.288882	0.0253
C(3)	-0.244772	0.063082	-3.880204	0.0002
C(4)	-0.411490	0.141581	-2.906391	0.0050
R-squared	0.317113	Mean dependent var		3.214286
Adjusted R-squared	0.286072	S.D. dependent var		1.005677
S.E. of regression	0.849740	Akaike info criterion		2.567671
Sum squared resid	47.65578	Schwarz criterion		2.696157
Log likelihood	-85.86850	Durbin-Watson stat		1.917014
<i>Hypothesis 3: $Q6=C(1)+C(2)*Q16+C(3)*Q3+C(4)*Q15$</i>				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	2.211528	0.567841	3.894626	0.0002
C(2)	-0.020493	0.010380	-1.974256	0.0525
C(3)	0.295784	0.125445	2.357876	0.0214
C(4)	-0.016994	0.011158	-1.523017	0.1325
R-squared	0.210144	Mean dependent var		1.957143
Adjusted R-squared	0.174242	S.D. dependent var		0.769636
S.E. of regression	0.699378	Akaike info criterion		2.178194
Sum squared resid	32.28254	Schwarz criterion		2.306680
Log likelihood	-72.23679	Durbin-Watson stat		1.355236

Table 3. Hypothesis testing results*Source: Eviews output*

Table 3 from above shows the results for testing the hypothesis defined. The method for estimating the regression coefficients is Least Squares, and the software used is Eviews. In order to validate or reject each individual hypothesis, the estimations must fulfill all hypotheses of the regression model. In this respect:

- **H1:** The model is linear; the residuals have zero mean value (Mean=-9.1989e-17 in this case); the homoscedasticity of random errors (the probability associated to White's F-statistic is 0.1429, higher than 0.05, so the null hypothesis is accepted, that affirms that the model is homoscedastik, so the respecification is not necessary); the random errors are not auto-correlated (the Durbin-Watson statistic is 1.790907, between 1.54 and 2.454, so the random errors are independent); the correlation between the independent variables and random errors are null (cov(Q5,errors)=-8.60e-16, cov(Q9,errors)=-1.11e-15, cov(Q15,errors)=1.71e-15); Moreover, all probabilities for all regression coefficients are lower than 0.05 (the regression coefficients are statistically significant), while significance F is 1,1623E-08, so the model is valid.
- **H2:** The model is linear; the residuals have zero mean value (Mean=-2.6645e-16 in this case); the homoscedasticity of random errors (the probability associated to White's F-statistic is 0.5674, higher than 0.05, so the null hypothesis is accepted, that affirms that the model is homoscedastik); the random errors are not auto-correlated (the Durbin-Watson statistic is 1.917014, between 1.54 and 2.454, so the random errors are independent); the correlation between the independent variables and random errors are null (cov(Q8,errors)= 2.806e-15, cov(Q4,errors)= 2.0806e-17, cov(Q12,errors)= 2.3741e-15); Moreover, all probabilities for all regression coefficients are lower than 0.05 (meaning that the regression coefficients are statistically significant), while significance F is 0,000013, so the model is valid.
- **H3:** The model is linear; the residuals have zero mean value (Mean=5.77e-16 in this case); the homoscedasticity of random errors (the probability associated to White's F-statistic is 0.0163, lower than 0.05, so the null hypothesis is rejected, that affirms that the model is not homoscedastik, so the respecification is necessary); the random errors are auto-correlated (the Durbin-Watson statistic is 1.3552, not between 1.54 and 2.454, so the random errors are not independent); the correlation between the independent variables and random errors are null (cov(Q3,errors)=3.12e-16, cov(Q15,errors)=-1.11e-15, cov(Q16,errors)=-4.88e-16); Moreover, not all probabilities for all regression coefficients are lower than 0.05 (some of the regression coefficients are not statistically significant), while significance F is 0,001316, so the model is not valid.

Considering the analysis of models from above, the hypothesis H1 and H2 may be taken into consideration for conceptual model, while hypothesis H3 is rejected, due to unfulfilling the regression model hypothesis.

The validity of the first model means that the professional accountants' view on accounting regulations is directly influenced by their professional skills development, their age and the person/entity they call for advice when needed. When professionals are highly skilled and their area of advice getting is a large and diverse one, the accounting legislation in force does not appear as difficult to apply, understand or interpret.

The development of their professional skills is influenced by the software used in daily activities. When the software used is detailed and offers less space for professional judgment, the development of professional skill is slowed down, as solution is only a "click away". Also, frequent modifications of accounting regulations do not encourage the development of professional skills as the laws' provisions are very strict and detailed. An opposite relationship exists between development of professional skills and the view over IPSAS utility in Romania. When discussing with high skilled professionals, the IPSAS are not viewed as imperious for adoption in Romania, as public sector in our country is not prepared for what international reporting standards require. This finding is convergent to that of Ștefănescu *et al.* (2010) who prove that, on a national level, the conformity of reporting models of financial performance is predominantly evident for denomination, presentation form and reporting basis, but not for concepts or accounting policies.

7. Conclusions

The profiles provided by cluster analysis show several interesting findings. One of them is that most of accountants having over 40 years old, highly experienced, understand better the procedures they use, comparing to the younger and inexperienced accountants.

Accountants that are over 40 years old have 2 different opinions, depending on their experience level: a high level of experience level requires the necessity of having more legal instructions about the procedures of preparing financial statements, while a lower level of experience is satisfied with the present provisions of accounting law. Young and inexperienced professional accountants believe that having an accounting monograph specific to the entity they work for is not a must, while older and experienced accountants require specific accounting procedures or instructions.

Young and inexperienced accountants are often required by their managers the Balance Sheet (the cause may be the lack of trust from the managers' part in the youth of their employee), while an advanced age and experience bring a trustful relation with managers, so they never (or very rarely) analyze the Balance Sheet.

Research on the Romanian Public Sector Entities' Accounting System

Surprisingly and, in the meantime, as unfortunate as it may appear, no matter the age or experience, for professionals' accountants the most helpful source of information and guidance for difficult situations remain the colleagues from other public institutions. Respondents, as professional accountants, suggested that general managers of public sector entities would get more training in the economic field. They state that there are situations when accounting terminology and financial or economic procedures lead to difficulties in the making decision process due to misunderstanding of concepts.

Our research revealed difficulties in implementing legislation provisions by accounting professionals due to several factors: the too frequent changes of laws, the small number of employees in financial-accounting departments and the insufficient training for personnel involved in accounting activities of public sector entities. The study also revealed that younger people engaged in accounting activities in public sector entities wish more freedom in the accounting choices as they want to develop their professional skills instead of the routine work performed at the moment.

One of the limits of our research consists in the small number of questionnaires component of the sample. Training courses organized by the accounting profession for accountants of public sector entities were the opportunity of distributing these questionnaires. Previous research experiences proved that there is very difficult to get information from public sector accountants by email or post. Their reserve in participating in these studies is connected to their volume of daily work, the frequent changes in management structures and the behavior of non-disseminating information from inside the entity.

As future research directions, we intend to analyze the transparency and the true and fair view disclosed by financial statements prepared by professional accountants in public sector entities as reports of auditors of Accounts Chamber of Romania – the competent authority in exercising the control activity over public sector management – reveal severe financial-accounting irregularities even 10 years after the adoption of accrual accounting for the public sector institutions (Pitulice&Ștefănescu, 2016). We want to research the connections between the difficulties revealed by professional accountants in the present paper and the financial-accounting irregularities found by the auditors of the Accounts Chamber of Romania in their control missions inside public sector entities.

REFERENCES

- [1] **Arnaboldi, M., Lapsley, I.(2009),***On the Implementation of Accrual Accounting: A Study of Conflict and Ambiguity*; European Accounting Review, 18:4, 809-836;
- [2] **Bartoli, A.(2009),***Management dans les organizations publiques*; Dunod, Printing House, Paris, 356;
- [3] **Luder, K. (2000),***National Accounting, Governmental Accounting and Cross-Country Comparisons of Government Financial Condition*; Financial Accountability & Management, Vol. 16, Issue 2, 117–128;
- [4] **Carlin Tyrone, M. (2005),***Debating The Impact of Accrual Accounting and Reporting in the Public Sector*; Financial Accountability & Management, 21(3), August, 0267-4424;
- [5] **Carnegie, G.D., West, B.P. (2003),***How Well Does Accrual Accounting Fit the Public Sector?*; Australian Journal of Public Administration, 62(2), 83–86;
- [6] **Christiaens, J., Vanhee C., Manes-Rossi, F., Aversano, N., Van Cauwenberge, P. (2015),***Les Conséquences des Ipsassur la Réforme des Rapports Financiers du Gouvernement: Comparaison Internationale*; Revue Internationale des Sciences Administratives, no.1 Vol. 81,171-191;
- [7] **Connolly C., Hyndman, N.(2006),***The Actual Implementation of Accruals Accounting: Caveats from a Case within the UK Public Sector*; Accounting, Auditing & Accountability Journal, Vol. 19 Issue: 2, 272 – 290;
- [8] **European Commission (2013),***Report of the Commission towards the Council and European Parliament to applying harmonized accounting standards for public sector in member states. Adequate character of IPSAS for member states*; Available online at <http://eur-lex.europa.eu/legal-content/RO/TXT/?uri=celex%3A52013DC0114>
- [9] **Hepworth, N.(2003),***Preconditions for Successful Implementation of Accrual Accounting in Central Government*; Public Money & Management, 23:1, 37-44;
- [10] **Hodges, R., Mellett, H.(2003),***Reporting Public Sector Financial Results*; Public Management Review, 5:1, 99-113;
- [11] **Humphrey C.(2005),***The Questionable Nature of ‘Third Hand’ Public Sector Accounting Solutions: A Case For Change?*; European Accounting Review, 14:3, 475-485;
- [12] **IPSASB(2014),***Handbook of International Public Sector Accounting Pronouncements*, vol.1,2, translation, *CECCAR Printing House*, Bucharest;
- [13] **KPMG Romania and Bucharest University of Economic Studies(2013),***Survey of Transparency in Reporting by Romanian city and town halls*, 2013, available online at <http://www.kpmg.com/RO/en/IssuesAndInsights/ArticlesPublications/news/Document/Transparenta-primarii-Romania.pdf>;

-
- [14] **Lapsley, I., Mussari R., Paulsson, G. (2009)**, *On the Adoption of Accrual Accounting in the Public Sector: A Self-Evident and Problematic Reform*; European Accounting Review, 18:4, 719-723;
- [15] **Nasi, G., Steccolini, I. (2008)**, *Implementation of Accounting Reforms*; Public Management Review, 10:2, 175-196;
- [16] **Paulsson, G. (2006)**, *Accrual Accounting in the Public Sector: Experiences from the Central Government in Sweden*; Financial Accountability & Management, 22(1), February 2006, 0267-4424;
- [17] **Pitulice I.C, Ștefănescu A., (2016)**, *Research on the Accurate Image Supplied by the Financial Reporting. The Case of Local Public Administration Entities from Romania*; International Conference on Accounting and Management Information Systems (AMIS) ISI indexed, 8-9 June 2016, Bucharest (accepted for publication);
- [18] **Ștefănescu, A, Țurlea, E., Calu, D.A. (2010)**, *Reporting the Financial Performance of Romanian Public Sector Entities-Convergent or Compliance?* The 18th Congress of Accounting Professional in Romania, CECCAR Printing House, Bucharest, 377-390;
- [19] **Ștefănescu, A., Țurlea, E., Calu, D.A. (2011)**, *Performance Measurement in Romanian Public Hospitals*; African Journal of Business Management vol.5, no. 2, 552-576;
- [20] **Ștefănescu, A, Calu, D.A., Țurlea, E. (2012)**, *Difficulties in Reporting and Disseminating the Financial Performance into the Public Sector Entities in Romania*; Audit Financiar Journal no.2, 25-33;
- [21] **The Ministry of Finance (2005)**, Order of the Public Finance Minister no. 1917/2005 for the approval of Methodological regulations regarding the accounting organization and management of public entities, Accounts planning for the public institutions and the instructions to apply it, published into the Official Monitor of Romania no. 1.18 bis dated 29.12.2005, with further modifications and completions;
- [22] **The Ministry of Finance (2013)**, Order of Public Finance Ministry no. 2021/2013 for modifying and completing OMFP 1917/2005, published into the Official Monitor of Romania no. 831 dated 24.12.2013
- [23] **Țurlea, E., Ștefănescu, A., Nicolae, F. (2011)**, *Interferences and Limits of the Accounting Policies Specific to Fixed Tangible Assets into the Public Sector Entities in Romania*. Annales Universitatis Apulensis, Series Oeconomica, Alba Iulia, no.13, vol.2, 325-338.