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Clusters Regarding Key Factors Affecting Changes in Accounting, Finance, Administration and Management Control

During the last decade, important changes have occurred in public governance, which has evolved in this time from hierarchical bureaucracy to participatory governance, where the role of citizens in public decision-making process is more direct. There were performed reforms in finance, management administration and finances of public sector. Starting from the factors that influenced during the history the accounting, finances, administration and management control, we want to test the factors that affect the changes of these elements in Romanian environment.

Keywords: *cluster analysis, dendogram, accounting.*

1. Introduction

In recent years, important changes have occurred in governance, which has evolved in this time from hierarchical bureaucracy to participatory governance, where the role of citizens in public decision-making process is more direct. Romania, a young democracy reborn over the iron curtain of socialism, passed during the last decade through a reform of the public sector. Starting with the reform of the public management, both at central and at local level, the Romanian public sector has further passed through the public financial reform, especially through the law regarding the local public finances. Moreover, as regards the Romanian public accounting, accrual accounting (in accordance with International Public Sector Accounting Standards) was put into practice both at the local government and the central government levels starting in January 2006 (Tiron, Popa, Blidisel, 2009).

One step toward a more evolved model of governance is linked to the new public management (NPM) model. The NPM postulates that the governmental entity is driven by a mission and operates strategically like a business unit, being conscious of cost efficiency. In this model, governance bureaucracies turn into strategic business units, competing with each other, and citizens become customers. The focus shifts from laws and regulatory conformity to the "rules of the marketplace", that is, economy and efficiency; the accounting and the budget base are moved from cash to accrual basis. In this way, the financial function is reformed into one based on cost savings and incremental revenues. NPM also argues that privatization is the mechanism to establish efficiency, efficacy and quality in the delivery of public services, as Emanuel Savas asserts, "privatization is the New Public Management" (Savas, 2000, p 319). According to Cooper (2004) in NPM administrations are not ethically neutral from the electorate; they have ethical obligations to the citizens and citizens should participate in management control and decisions.

Historically, the management control has been invented for private organizations. (Levant, De La Villarmois, 2001). Currently, more than speaking of a management control and management accounting crisis, the classical techniques are considered by some authors irrelevant to the new competitive environment, and we are witnessing to a renewed approach illustrated, by example, by the ABC method.

Private organizations developed management control system devices to measure their performance. But, in public organizations, these systems have a different role. Historically, the semantics of the term —accountability (Mulgan, 2000) insisted on one essential aspect of the public management device: compliance with legal rules.

Gradually, a new objective has been added to the control of regularity: to assess the effectiveness of the public management (Berland N., Dreveton B., 2010).

The imperfections of the budgetary system and the lack of information in public accounting determined public entities to adopt new techniques (Demeestère, 2002, 42-44).

Some countries (eg France, by DAGPB/AF2 Circular No. 2007-60 / 2007) have made major changes in public management based on performance logic. In Romania the implementation of the management control in terms of performance in public sector is a major challenge.

Tiron, Popa, Blidisel, (2010) argue that during the history the accounting and management control approach are, mostly institutionalized.

If the applicability and usefulness of private sector management methods associated with transposing the public sector, it seems to be a reality rooted in the mentality that goes beyond fashion effects.

2. Analysis and data processing

Starting from the factors that influenced during the history the accounting, finances, administration and management control, we we want to test the factors that affect the changes of these elements.

The research methods used are quantitative, based on content analysis. We used factors like economic conditions, social conditions, environment, administrative conditions, political condition as well as profesional influence in order to demonstrate the impact changes in accounting, finance, administration and management control. For this purpose we used the cluster analysis. Figure 1 illustrates the cummulative changes in accounting, finances, administration and management control during the last 20 years in public sector from a scale of 0 to 1, influenced by some key factors.
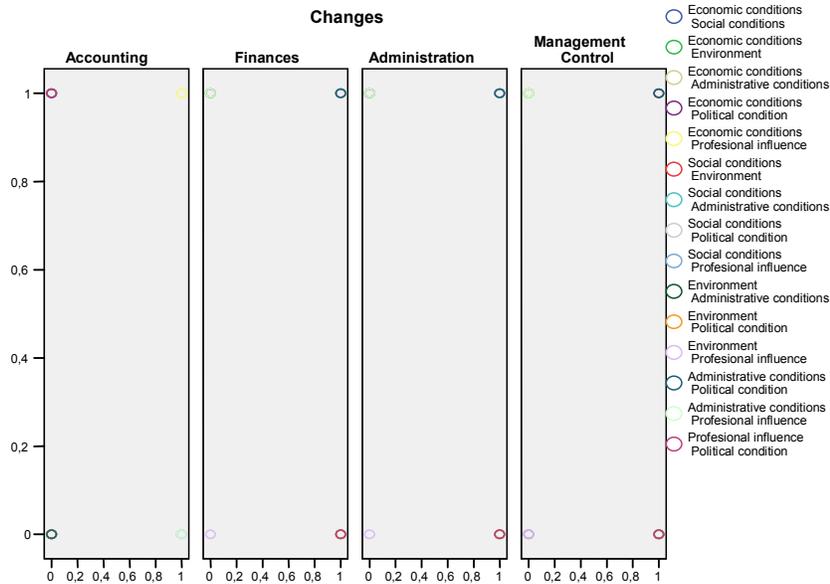

Figure 1. Cummulative changes in accounting, finances, administration and management control during the last 20 years in public sector (scale 0:1)

Figure 2. presents the factors that influence the main reforms that affected during the last time the public sector. They are expressed from a scale from 0 to 1, being presented the graphics that show clearly the influence between the selected variables.
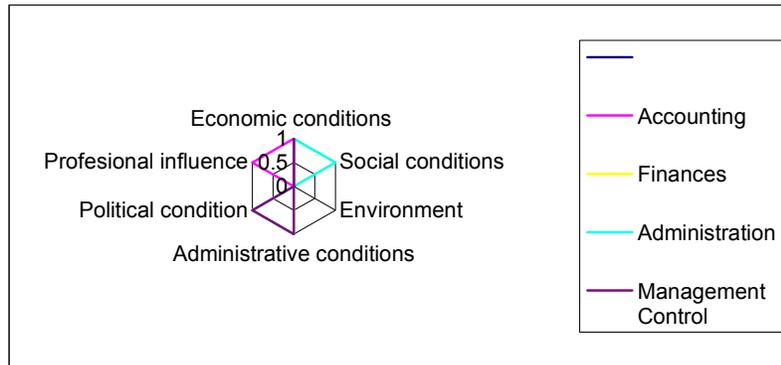
Figure 2. Overlay scatter and diagram of the variables

Moreover, the table 1 and 2, as well as figure 3 and 4 show the cluster analysys of the selected variables and the aglomeration schedule. All of the elements are combined in three clusters.

Table 1. Case Processing Summary

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
4	80,0	1	20,0	5	100,0

a   Euclidean Distance used
b Average Linkage (Between Groups)

Table 2. Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2	Cluster 1	Cluster 2	Cluster 1	Cluster 2
1	3	4	0,000	0	0	2
2	3	5	1,000	1	0	3
3	2	3	1,911	0	2	0

Vertical Icicle

Number of clusters	5:Management Control		4:Administration		3:Finances		2:Accounting
				Case			
1	X	X	X	X	X	X	X
2	X	X	X	X	X		X
3	X		X	X	X		X

Figure 3. Vertical Icicle of the three clusters formed

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Rescaled Distance Cluster Combine


          C A S E           0         5        10        15        20        25
  Label                Num  +---------+---------+---------+---------+---------+

  Finances              3   ⇩×⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩↪
  Administration        4   ⇩↪                                      ▭⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩↪
  Management Control    5   ⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩↪
⇔
  Accounting            2
⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩⇩↪
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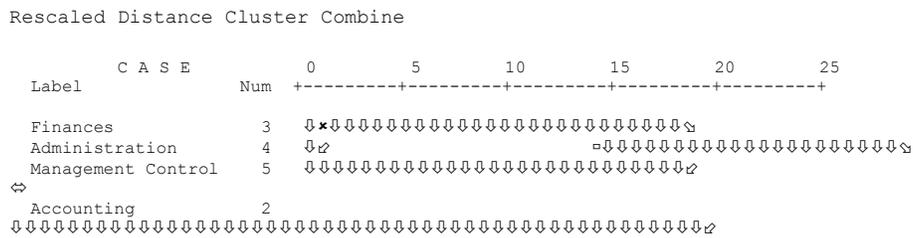
Figure 4. Dendogram using Average Linkage (Between Groups)

3. Conclusions

The historical changes have an important impact on rthe main reformes performed in public sector. The set of observations are subests in clusters so that observations in the same cluster are similar in terms of dependent variables choosed. The paper conclude that there are formed three clustres between economic conditions, social conditions, environment, political condition, profesional influence and administrative conditions, as dependent variables and finances, administration, management control and public accounting as independent variables. The limits of the paper regards the small number of factors taking into account, in future research we will detail these factors on historical years.

References

[1] Berland N., Dreveton B. (2010), *Management control system in public admini-stration: beyond rational myth*, Author manuscript, published in "Accounting Reform in the Public Sector: Mimicry, fad or Necessity (2006) p. 21-37"

[2] Cooper, L.T. (2004*). Big Questions in Administrative Ethics: A Need for Fo-cused, Collaborative Effort,*   Public Administration Review Washington D.C., 64(4), 395-407.

[3] Demeestère R. (2002*), Le contrôle de gestion dans le secteur public*, LGDJ, Coll. Systèmes Finances Publiques.

[4] Levant Y. and O. De La Villarmois (2001), *Origine et développement d'une mé-thode de calcul des coûts: la méthode des unités de valeur ajoutée (UVA)*, Comptabilité Contrôle Audit.

[5] Mulgan R. (2000), ―*Comparing Accountability in the Public and Private Sectors*, Australian Journal of Public Administration, Vol. 59, mars.

[6] Savas, E. (2000), Privatization and Public-Private Partnership, New York, USA: Chatham House Publishers.

[7] Tiron T A., Popa A, Blidisel R. (2009) - *E-financial Reporting Within the Roma-nian Public Sector Governance*, Proceedings of the 9th European Conference on E-government, Westminster Business School University, Publisher: Academic Publishing Limited, London, England, p. 628-637.

[8] Tiron T A., Blidisel R., Popa A, Farcane N. (2010) – *Historical landmarks regard-ing management control in public sector*, 2nd Balkans and Middle East Coun-tries Conference on Auditing and Accounting History, MUFAD, Istanbul Turkey.

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