

MONITORING IN CREDIT INSTITUTIONS – COMPARATIVE APPROACH ON INTERNAL CONTROL SYSTEMS – THE CASE OF ROMANIA VS. INTERNATIONAL MODELS OF CONTROL

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Starting from the stipulations of the two well-known internal control system models – COSO and CoCo - the purpose of this paper is to focus on the Romanian framework for credit institutions – trying to identify on which international model) is our national one most appropriate to.

The research methodology is based on an empirical analysis between Romanian regulation and the models already mentioned. To reach to a conclusion we tried to identify several key issues closely related to information and communication, and to determine the degree of similarities and dissimilarities between the three selected frameworks, by using statistical indicators.

The paper has some limitations, too, because it only approaches formal harmonization. So, those issues analyzed through the regulations' perspectives need to be closely quantified in matters of their actual implementation, which offer us outlooks of future research.

Keywords: Monitoring, COSO model, CoCo model, Romanian framework

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1. INTRODUCTION

Effective internal controls have always been the goal of every bank's management in which achievement it typically has the following five objectives: to maintain reliable systems, to ensure timely preparation of reliable information, to safeguard assets, to optimize the use of resources, to prevent and detect error and fraud⁴⁴⁴.

Along time, there have been designed different models of internal control, the most well-known being the COSO and CoCo models, which have also been the subject of various research papers⁴⁴⁵.

As internal control frameworks, most authors⁴⁴⁶ reached to the conclusion that the two models (COSO and CoCo) complement each other. All these authors see internal control as a process designed to facilitate and support the achievement of business objectives, which covers consideration of significant

⁴⁴⁴ Alvin A, Lemon W.M and Loebbecke J., *Auditing: An Integrated Approach*, Scarborough, ON: Prentice Hall Canada Inc., 5th Edition, 1993; FMCBC, *Enhancing Management Involvement with Internal Control*, Financial Management Capacity Building Committee, 2005, pg. 2.

⁴⁴⁵ Gramling A., *Internal Control Systems*, *Encyclopedia of Business*, 2nd Edition, 1990, http://findarticles.com/p/articles/mi_gx5209/is_1999/ai_n19125759; Callaghan J.H., Savage A. and Mintz S., *Assessing the Control Environment Using a Balanced Scorecard Approach*, *The CPA Journal Online*, March 2007; Rezaee Z., *What the COSO report means for internal auditors*, *Managerial Auditing Journal*, vol. 10, no. 6, 1995, pg. 5-9

⁴⁴⁶ Rittenberg E. L, Martens F. and Landes C.E, *Internal control guidance – not just a small matter*, *Journal of accountancy*, March 2007; Hirth R.B.Jr., *Better internal audit leads to better controls*, *Financial Executive*, November 2008, www.financial-executives.org; Kinney W.R.Jr., *Research Opportunities in Internal Control Quality and Quality Assurance*, *Auditing - A Journal of Practice & Theory*, Vol. 19, Supplement, 2000, pg. 84

risks in operations, compliance and financial reporting, and which are mainly focused on the same objects, such as improving business effectiveness.

Romanian internal control system framework is a newer one, dated from 2003, when the our National Bank settled the regulation regarding internal control system and audit in banking field, emphasizing their importance in managing significant risks. Even if this framework is an implementation of the Basle Committee on banking Supervision's settlement, it designs an internal control system, so there has to be a more or less similarity between it and the two international well-known models, which is going to be the aim of our research.

2. AIM OF THE STUDY AND RESEARCH METHODOLOGY

Our empirical study is aimed to identify on which of the international internal control models (COSO or CoCo) is based the Romanian internal control system framework for credit institutions, as regards *monitoring*. In order to reach to a conclusion, we made an analysis with character of comparison between the two international models, as well as our national regulation and each of them. In this study, we focused our attention on aspects related to monitoring, one of the most important components on any internal control system.

Our empirical analysis was performed by testing the similarities and dissimilarities between the three sets of regulations regarding monitoring – the internal control system's component analyzed, taken two at a time in order to reach to a conclusion about the comparability degree existent between them.

The source of information for our research was the three regulations mentioned above which were codified and assayed by using a statistical method, which is being detailed in the chapter dealing with the comparative approach of the national framework by reference to the two international internal control models.

The findings of our study, which come from analyzing formal harmonization in the area of internal control system, are correlated to the literature review, but as every other research, our paper has some limitations, too, which offer us outlooks of future research. We should not forget that our study is only about a formal harmonization, which needs to be broaden to the current development stage of the national banking system, focusing on the degree in witch the regulation is put into practice and its purpose is being achieved.

3. LITERATURE REVIEW

Internal control has different meanings to different parties. That is why, it is very difficult to give an only-one definition of the internal control system, because it can be seen from different angles. In the followings we are going to focus our attention on two of the most important international models of control.

The first one is **COSO's** model⁴⁴⁷, which tries to establish a common definition. Under COSO's report, *internal control* in its broader sense is defined as a process affected by an organization's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of *objectives* in the following categories: (a) effectiveness and efficiency of operations; (b) reliability of reporting and (c) compliance with applicable rules, laws and regulations.

The second model of *internal control* is the **CoCo's** one, which is focused on behavioral values rather than control structure procedures as the fundamental basis for internal control in a company⁴⁴⁸. According to this, *internal control*⁴⁴⁹ is put into the context with how a task is performed, defining it as

⁴⁴⁷ COSO, *Internal Control – Integrated Framework*, Committee of Sponsoring Organizations of the Treadway Commission, 1992, www.aicpa.org / www.coso.org

⁴⁴⁸ Protiviti Independent Risk Consulting, *An Overview of the COSO Internal Control – Integrated Framework*, 2004, www.knowledgeleader.com

⁴⁴⁹ CICA, *Guidance on control*, Criteria of Control Board, The Canadian Institute of Chartered Accountants, 1995, www.cica.ca

those elements of an organization (including its *resources, systems, processes, culture, structure and tasks*) that, taken together, support people in the achievement of the *objectives*.

If COSO divided internal control into five main components, CoCo uses four essential elements as groupings within which it articulates 20 criteria of control. These criteria create the basis for understanding control in an organisation and for making judgements about the effectiveness of it, a characteristic, which was from the very old time the subject of many studies⁴⁵⁰.

Starting from these differences identified between the two international models of control, it is appreciated that neither COSO, nor CoCo is a perfect model. According to some authors⁴⁵¹, COSO framework is the standard for internal control guidance, which is why it was often used as a teaching tool in the university environment⁴⁵². A recent survey⁴⁵³ of members of the Institute of Management Accountants and the Institute of Internal Auditors reports that approximately 90 percent of respondents rely on the COSO framework (to at least some extent) to evaluate controls.

As regards monitoring – the last component of the internal control system – which is the subject of our research, it is considered that unmonitored controls tend to deteriorate over time. So, monitoring, as defined in the COSO Framework⁴⁵⁴ is implemented to help ensure “that internal control continues to operate effectively.” According to some authors⁴⁵⁵ “it is not enough to put good controls in place. You must monitor them regularly.” This is the conclusion at which the authors reached after fictitious transactions remained undetected in a supposedly highly sophisticated internal control regime (the case of Societe Generale – 2008). They identified the following possible internal control weaknesses that may have led to the losses subsequently incurred: circumvention of control, inadequate security over the IT, poor password protection, lack of adequate confirmation / reconciliation, lack of review for canceled transactions / changes of transactions, inadequate monitoring employee behavior.

Another very interesting research⁴⁵⁶ aimed to determine whether compliance to Standards for the Professional Practice of Internal Auditors affected the quality of the internal control system reached to the following conclusion regarding the element of the internal control system analyzed by us: “*monitoring* is significantly influenced by management of internal audit department, professional proficiency, objectivity and review”.

⁴⁵⁰ Turnbull Report, *Internal Control Guidance for Directors on the Combined Code*, 1999, www.ecgi.org; Tongren J.D., *CoActive control*, Internal Auditor, 1995, pg. 42-44; Gibbs J. and Keating P. *Reengineering Controls*, Internal Auditor, 1995, pg. 46-49

⁴⁵¹ Campbell, D., Campbell M. and Adams G., *Adding significant value with internal controls*, The CPA Journal, vol.76 (6), 2006, pg. 20–25

⁴⁵² Savage A., Norman C.S. and Lancaster K., *Using a movie to study the COSO internal control framework: an instructional case*, Managerial Auditing Journal, vol. 22 (1), 2008, pg. 63-76; Stewart, I., *Teaching accounting ethics: The power of narrative*, Accounting Education: A Journal of Theory, Practice and Research no. 2, 1997, pg. 173–184; Herremans, I.M., *Integrating internal control in MBA programmers using the COSO and CoCo models*, Managerial Auditing Journal, vol. 12(2), 1997, pg. 60-66

⁴⁵³ Gupta P., and J. Thomson, J., *Use of COSO in management reporting on internal controls*, Strategic Finance, vol.. 88 (3), 2006, pg. 26–33

⁴⁵⁴ COSO, *Guidance on Monitoring Internal Control Systems*, Committee of Sponsoring Organizations of the Treadway Commission, 2009, www.coso.org

⁴⁵⁵ O’Learly C. and Gibson S., *Société Générale: The Importance of Monitoring Compliance with Internal Controls*, Accountancy Ireland, December, vol. 40 (6), 2008, pg. 20

⁴⁵⁶ Fadzil F.H., Haron H. and Jantan M., *Internal auditing practices and internal control system*, Managerial Auditing Journal, vol. 20(8), 2005, pg. 844-866

4. EMPIRICAL COMPARATIVE APPROACH REGARDING INFORMATION AND COMMUNICATION BETWEEN ROMANIA, AMERICA AND CANADA

In order to achieve our aim - to identify on which of the international internal control models (COSO or CoCo) is based the Romanian framework for establishing the most efficient monitoring in credit institutions, we conducted an empirical study based on an analysis with character of comparison between the three sets of regulations (the two international models and the Romanian one).

We have started from the main principles for control activities required by COSO and the criteria of control also related to this aspect, as these are defined by CoCo, trying to establish the link between them. Thus, we have identified a series of issues regarding monitoring, which we organized within three main topics as follows: (1) *ongoing monitoring*, (2) *separate evaluations* and (3) *reporting deficiencies*. Starting from these topics, we proceeded to compare aspects related to monitoring, one of the most important component of internal control system, as it appears within the three frameworks. Thus, we have allocated the 1 or 0 values for each possible and/or existent requirement within at least one of the considered regulation, where the 1 value shows that the requirement exists within that framework, and 0 value is given for the situation when the requirement is not found within the considered framework.

Table I. Exemplification of the analysis method used for the considered topics

Monitoring - Analyzed elements	The character of the requirement		
	COSO	COCO	Romania
Separate Evaluations			
- <i>the role of the responsible personnel</i>	0	0	1
- <i>the role of the internal audit</i>	1	0	1
- <i>the role of the external audit</i>	1	0	0
- <i>evaluations' frequency</i>	0	1	1
- <i>assumptions</i>	0	1	0

In the above table (Table I.) there are presented the 1 and 0 values that have been allocated to each requirement of one of the topic analyzed – *separate evaluation*.

In order to achieve the proposed comparison, we have considered that the best analysis, in case of this type of approach, is represented by the nonparametric correlation and the association degree between two or more than two considered variables. Thus, we have used for our research the Jaccards' association coefficients, which have been used before in studies focused on comparisons between different sets of regulations. On the other hand, the two Jaccard's coefficients offer the possibility of quantifying both the association degree and the dissimilarity degree between different sets of requirements regarding monitoring, taken into consideration for analysis.

So, in order to dimension the compatibility degree or, in other words, the association between two or more internal control systems, the calculation formula for the Jaccards' coefficient shows as follows:

$$S_{ij} = a / (a + b + c) \quad \text{and} \quad D_{ij} = (b + c) / (a + b + c)$$

where:

- S_{ij} represents the similarity degree between the two sets of analyzed frameworks;
- D_{ij} represents the degree of dissimilitude or diversity between the two sets of analyzed frameworks;
- a represents the number of elements which take the 1 value for both sets of frameworks;
- b represents the number of elements which take the 1 value within the j set of frameworks and the 0 value for the i set of frameworks;
- c represents the number of elements which take the 0 value within the j set of frameworks and the 1 value for the i set of frameworks.

Elements related to monitoring that have been analyzed in this empirical study are therefore given the 1 value for containing a certain requirement and the 0 value for non-containing that considered requirement.

As a result of the effective measurement of the comparability degree between the Romanian framework and the international models COSO and CoCo, based on Jaccard's coefficients, we have reached to the conclusion that our national regulation is much more similar to COSO's model of control rather than to the CoCo's one, as presented in the following table (table II.).

Table II. Comparison analysis based on Jaccards' coefficients

<u>Monitoring</u> Topic	Romania vs. COSO		Romania vs. COCO		COSO vs COCO	
	S _{ij}	D _{ij}	S _{ij}	D _{ij}	S _{ij}	D _{ij}
<i>Ongoing Monitoring</i>	1,000	0,000	0,333	0,667	0,333	0,667
<i>Separate Evaluations</i>	0,250	0,750	0,250	0,750	0,000	1,000
<i>Reporting Deficiencies</i>	0,800	0,200	0,333	0,667	0,400	0,600
TOTAL	0,683	0,317	0,305	0,695	0,244	0,756

5. FINDINGS AND CONCLUSIONS

The results of our analysis show the level of similarities between the national framework and the two international regulations. As it can be seen, the Romanian stipulations regarding monitoring, issued by our National Bank is closer to COSO model rather than to the CoCo's one. Also, the values of the statistical coefficient used in our study demonstrate that there is also a high degree of dissimilarity between COSO and CoCo models, higher than the one between Romanian regulation and CoCo's model as it is also shown in the table above. This, we can conclude that the Romanian framework is a complex one, including a various types of characteristics and requirements needed for ensuring an effective monitoring in banking sector. But, we should not have to forget about the following breakdown: even if it has a permanent character and considers both internal and external sides, our framework does not stipulates anything about follow-up procedures, which should be established and performed to ensure appropriate change or actions occur, thus enabling control to remain effective.

According to the literature review regarding the two international models of internal control system, there isn't any kind of assessment on which of these models is better, or which of these is good and which is bad. Starting from this argument, we could reach to the conclusion that Romanian banking system is well settled as regards monitoring, in accordance to very well known international models and, also, to the international supervising authority that we should not forget - the Basle Committee on Banking Supervision.

In the end we need to mention the limitations of our study. First of all, we should not forget that that our empirical research only approaches formal harmonization in the area of internal control systems, more exactly regarding *monitoring* – the analyzed issue. In order to diagnose not only the existence of a “monitoring system”, but also the functionality of it we need to go deeper and to continue our research. Only an empirical analysis on insights of the banks internal controls, based on the information provided by credit institutions, would show the degree to which the foresights of the international models of control, which seem to have been assumed by the national regulation, are actually put into practice and respect their purpose. These would show the level of material harmonization which should be analyzed in correlation to the formal one, which was the subject of this study. So, all these offer us outlooks of future research.

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