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Internal Auditing of the System Governance of Procurement, as an Economic and Effective Key Factor for the Proper Management of Corporate Resources: Case Study of “Titan” Cement S.A.

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Abstract

Internal audit activities are carried out in various cultural environments, to organizations that differ in size, complexity, purpose, structure and more. These differences may affect the effective implementation of internal control. International Standards were created and established for the professional implementation of Auditing, intending either to the diminution or normalization of these differentiations as well as having ultimate aim to an optimal and unimpeded auditing. The system of internal control is like the nervous system of the human body. It ramifies across the entire organization, transferring commands and reactions to and from the administration. However, it is totally geared towards organization’s needs. Procurement function is defined as the decision-making process for the determination and selection of quality, quantity, price, time and the source market for an object - material - product - goods or service that the acquisition has been decided by the administration. Likewise, Procurement function defines rules and limitations ensuring that delivery fully meets the required standards. The fundamental objectives of Purchasing usually are determined by the buying of right quality, in the right quantity, at the right time, at the right value, from the right source. The article aims to determine and point out the need for internal control (internal audit), how its implementation to the Procurement department of the cement industry TITAN S.A. is figured as process as much as an ideal catalyst, deriving to efficient financial management of resources. A proper financial management and administration in conjunction with the appropriate coordination of individual departments of the organization, furthermore within a well-organized internal control, increases, obviously, the chances of an effective administration, business development and certain profitability.

Keywords

internal audit, controlling standards, effective administration, development, profitability

1. Introduction

Auditing, as an area of Accounting, is both science and art. Modern Auditing is inextricably linked to the most basic sciences of Business Finance Administration, such as Economic, Statistical, Legal and Computing Departments. The system of internal control is like the nervous system of the human organism. It is branched off across the entire enterprise, transferring commands and reactions to and from the administration, as it is fully geared to its needs. It is patently obvious that financial resources were always connected to business strategy. Nowadays are more connected to the general strategy of enterprises than ever. The research questions of this work are:

- The importance of an organized internal control system.
- The internal audit methods’ implementation and models analysis and interpretation.
- The efficiency of the internal control’s method, which is applied to the Procurement Department of a firm.
- The choice of the ideal method of internal control to a Supply Chain department, after effectiveness research.
- The investigation of internal control effectiveness to Supply Chain Department of a company, as a parameter of successful financial management.

2. Theoretical Overview

2.1. Auditing and control

Constant developments are regarded in a modern economy. The leap of complex economic organizations, the strong growth of coordinated money markets and capital, as well as the expansion of the professional business executives' class, are some of the most remarkable samples of the modern economic developments. These developments are deriving from the implementation of complex economic policies, State economic intervention in the life of a country, political-economic conjuncture and the address of economic organizations actors to manage their financial resources and capabilities they possess effectively. This address is identical with the faculty to take rational decisions [1]. Within the several conditions for taking rational decisions, the most important is the sufficient and appropriate collect of financial information. The economic science is the one that deals with the classification, correlation, collection, measurement and presentation of the financial information. Such information may be useful only when it is reliable, relevant and essential. It is therefore work of science and the area of audit to verify the reliability and the importance of such information [2].

Audit is the area of economic science which the main objective is to ascertain whether an economic unit's financial statements or results are correct or incorrect in accordance with either the generally accepted accounting principles (external audit) or the specified administrative policy of a unit's operation (internal control) [3].

As part of control, particularly in the area of finance, Audit's subject is the measurement methods and reliability. An integrated inspection can and should check the overall organization and the administrative structure of the unit as well as the adequacy of the whole administrative information system. The categorization of Auditing may be based on the chosen emphasized areas rather than the structure methods that it uses. This gives us the following species [4]: Financial Control (Financial Audit), Operational Test (Operational Audit), Operational Efficiency (Efficiency Audit), Compliance Check (compliance audit) and Fraud Check (Fraud Audits).

2.2. The Internal Audit

The term "Internal Audit" attributes two basic concepts, while sets the limits and the scope, as system of internal control and internal audit. In accordance with the definition of the Institute of American Accountants (AICPA), Internal Audit consists of the organizational structure, the concerted efforts, the methods and the measures adopted within a business for the preservation and protection of assets, accuracy checks and accounting data reliability, the efficiency and operational development as much as the encouraging for the conservation of prescribed enterprise policy.

It is reasonable to make the question whether the work of auditing can be evaluated and within what method. The evaluation of the project in money is a difficult matter. The reveal of a fraud and the repercussions of it, are something that can be easily measured in value, and such losses count toward. Long time thievery, future losses from the non-compliance with the company's established functions, corresponding fraud and theft, misappropriations, production stock improving proposal or partial changes that might generate operating cost reduction, cost reserve, changes in the means of payment, borrowing cost reduction and many others count toward also. The Audit's task must deliver added value continuously [5].

In the current volatile and constant evolving business environment, managers are surcharged with typically increased responsibilities and they must take prompt the necessary decisions that will determine the future development of the firm [6]. Their rational choices are based on objective information that has derived from unbiased sources at the right time. Within the economy cell, wealth is generating as the core in a social and economic term. The continuous integration of mid-sized companies in various industries and the creation of more powerful economic patterns, have resulted in the concentration of capital and resources, in the hands of a shareholding minority, who often administrate large enterprises. Therefore, there is a great temptation to abuse and misappropriate funds.

The internal control is becoming more and more necessary and useful, like a consultant offering upgraded services. The necessity is obvious due to the imperfections and weaknesses which

distinguish human being. Errors are deriving from weaknesses, due to the imperfections of human capacities. Thievery, frauds and irregularities relate to the imperfections of human nature and morality. It is impossible to root these weaknesses out, whatever the mustered means may be. The remaining method to restrict these weaknesses as far as possible is to adopt internal control.

2.3. Procurement and Supplies

The fact that most of productive companies spends approximately 65% of their sales profits on the market of raw materials, spare parts and services, makes the role of the supply chain departments more and more important. The "mutation" is perceived by noticing the course of the operation of Supply Chain department through the time of establishment as part a company until today. From simple supportive function - the first period of the twentieth century- to a traditional functioning control of market cost for the remainder of the century, to a modern administrative department of the companies of the twenty-first century.

The term "Procurement operation" defines the decision-making process for the determination and selection of quality, quantity, the price, the time and the market source for an object - material - product - goods or service that it's acquisition has been decided and the rules implementation, ensuring that the receiving goods, fully meet the required standards. The fundamental aim of Procurement determines the purchase of correct quality, in the correct quantity, at the correct time, in the correct value from the correct source. This generalized proposal demonstrates the need for the supplies to be possessed by the policy of selection and analysis of several parameters before the final purchase [7].

The Procurement main objectives are:

- the preservation of appropriate material quality standards,
- the supply of materials at the lowest market price with the preservation of their qualitative characteristics,
- the waged relentlessly supply based on the company's needs,
- the minimization of investment costs in materials,
- the constant preservation of safe stocks and the creation an economic advantage to maintain the competitive position of the company in the industry through the conservation of profits within markets affecting them (Strategic planning),
- the redundancy purchases avoidance(duplicates),
- the avoidance of wastage through obsolescence (obsolescence of materials) and the reduction of stocks,
- the reporting and reports after analysis of short-term and long-term markets, and
- the continuous market research for new technologies and alternative ideas, materials and products that their adoption would improve the efficiency and profitability of the firm.

3. Research Methodology

The preparation of this project performed with the combination of secondary and primary research [8].

- A. The secondary investigation covered the theoretical background, with information on external sources (Greek and foreign literature, articles from international and Greek scientific journals), with major sections the audit, the financial management and the Internal Control.
- B. The primary survey was carried out using structured questionnaire. The questionnaire was designed on the basis of the research objectives and distributed by electronic mail to managers, heads and leaders of parts of the Group TITAN.

The questionnaire, after an electronic or telephone communication with the managers, heads and executives was forwarded to them on 18/04/2016 and was collected until 15/05/2016. From the total 146 questionnaires, the received and fully completed appeared 134. Because of the particularly high responsiveness of respondents in the survey (was covered in percentage the 92% of the population), the research can be described as highly representative and impartial and the conclusions and proposals of this may qualify generalization.

Table 1. Administration and Section Population of Titan Group

TABLE : ADMINISTRATION AND SECTIONS' POPULATION OF "TITAN" CEMENT GROUP			
1	ADMINISTRATION	PLANT MANAGEMENT WITHIN COUNTRY	4
2		HEADQUARTERS MANAGEMENT	6
3		PLANT MANAGEMENT WORLDWIDE	6
4	FINANCIAL MANAGEMENT	HEADQUARTERS PROCUREMENT MANAGEMENT	1
5		HEADQUARTERS PROCUREMENT DEPARTMENT GREEK PROVIDENCE	6
6		HEADQUARTERS PROCUREMENT DEPARTMENT WORLDWIDE PROVIDENCE	9
7		ADMINISTRATIVE AND FINANCIAL SERVICES DEPARTMENT OF GREEK PLANTS	4
8		GREEK PLANTS' INDIVIDUAL PROCUREMENT DEPARTMENTS	8
9		WORLDWIDE PLANTS' INDIVIDUAL PROCUREMENT DEPARTMENTS	12
10		HEADQUARTERS' FINANCIAL AND ACCOUNTING MANAGEMENT	14
11		GREEK PLANTS' INDIVIDUAL ACCOUNTING DEPARTMENTS	8
12		WORLDWIDE PLANTS' INDIVIDUAL ACCOUNTING DEPARTMENTS	12
13		GREEK PLANTS' WAREHOUSES	6
14	WORLDWIDE PLANT WAREHOUSES	16	
15	INTERNAL AUDIT DEPARTMENT	INTERNAL AUDIT MANAGEMENT	1
16		INTENAL AUDIT DEPARTMENT GREEK PROVIDENCE	6
17		INTERNAL AUDIT DEPARTMENT SOUTHEAST EUROPE AND TURKEY	6
18		INTERNAL AUDIT DEPARTMENT OF NORTHEN AND SOUTHERN AMERICA	5
19		INTERNAL AUDIT DEPARTMENT FOR GREEK PLANTS	4
20	INTERNAL AUDIT DEPARTMENT FOR WORLDWIDE PLANTS	8	
21	INFORMATION TECHNOLOGY MANAGEMENT	IT DEPARTMENT - BASED IN HEADQUARTERS	4
		TOTAL	146

4. Basic Findings and Outcomes of the Research

The Group has vertical cement and concrete production plants around the world in which the Procurement department mainly is composed of two people. Also, for strategic reasons features a Procurement department which operates at the headquarters of the company. This section staffed with more than 15 specialized 'buyers'. The Procurement departments are operating covering up all kind of daily needs such as large amounts of spare parts or maintenance services. However, the coordination of the purchases, strategic ordering of raw materials, energy and large investments may be carried out by the procurement department based in the headquarters. Simultaneously the department carries out purchases, on behalf of group's units and plants as well. Among all respondents, 50% are based at the headquarters of the company, mainly in coordinating positions. The remaining 50% works in units around the world, either stock warehouses, in "first-line" positions, otherwise known as production line. This normal distribution derives in an advantage of comparison within different opinions and perceptions of respondents, as well as the total is involved with the procedures of procurement and audit.

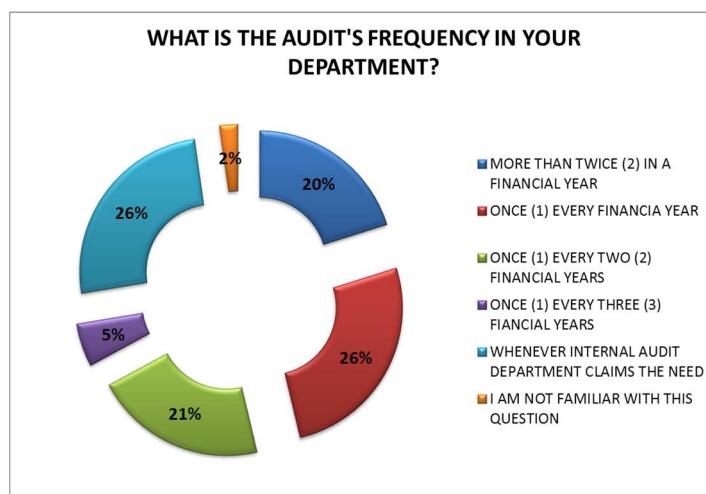


Fig. 1. Audit's Frequency

Excluding the very small percentage with just 3%, people who do not know the frequency of audits, it is observed in the graph (Figure 2) that there is relative equalization of responses. So with 20%,

there are cases where audits carried out in sections with frequency greater than two times per year. Such sections, according to the findings are the section of economic administration, which operates at the headquarters of the company, the worldwide individual accounting sections of the group and the sales departments of all units. With rate of 26% audits has frequency of one time per financial year. Such sections may be warehouses (spare parts- raw materials) and production stock (for the management and control of resources). The 21% of all sections has revealed frequency from entities internal control, either external auditors once every two years. Such sections are for example procurement departments. With rate of 26%, audits are carried out when the internal audit department deems it necessary (procurement and supply chain departments or even logistics).

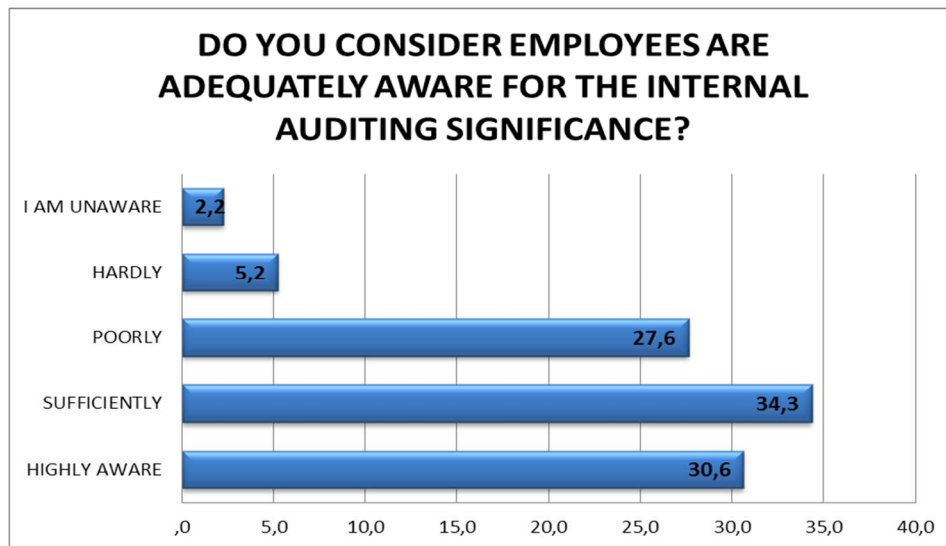


Fig. 2. Employees awareness rate for auditing significance

The graph in this question appears with percentage that reaches combined 65%, otherwise 87 people out of 134, to respond to the question on the knowledge of the importance of carrying out internal control positively. Out of 87, 41 people have very good knowledge of the concept of internal audit. This percentage comes out from employees directly controlled by Internal Audit executives. The remaining 46 understand the significance of internal control in sufficiently good level.

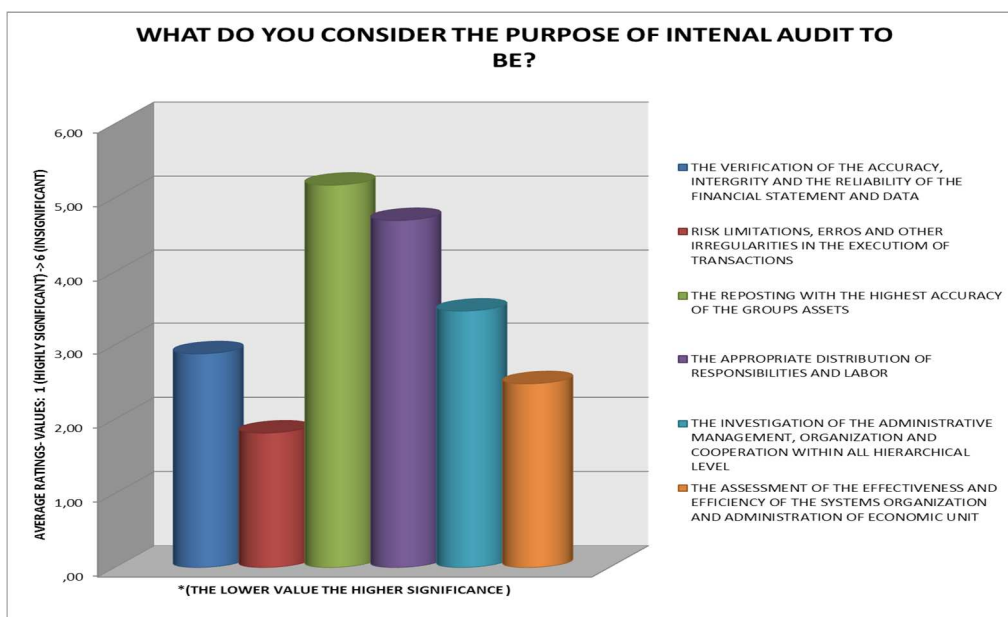


Fig. 3. Internal audit purpose

Emphasizing the fact that the question asks for the classification of the replies from the 1 as the most important purpose up to 6 as the most insignificant. On this basis the average value in each question reflects the significance (with the smallest value appears to be the most important purpose). With an average value 1.81 the purpose "limitation of risks, errors and other irregularities in the execution of transactions" appears to be the primary reason for the internal audit function for the participants. Second in significance, based on the results of the research is "the assessment of the effectiveness and efficiency of the systems organization and administration of economic unit". With average value 2.48 and with a very little difference in third place of significance is the purpose "verification of the accuracy, integrity and the reliability of the financial statements and data".

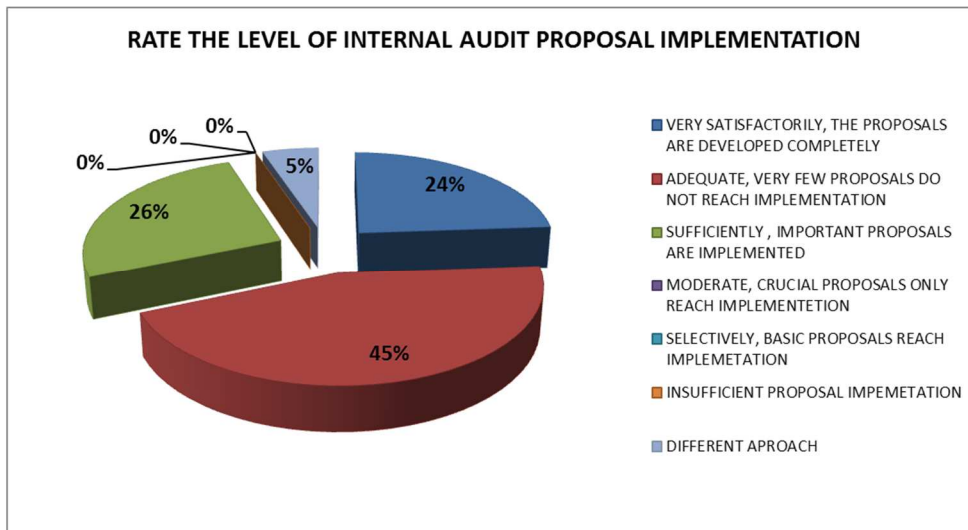


Fig. 4. Internal control proposal implementation

With a rate of 23.9%, it is declared by the participants that the reformative suggestions of the Internal Audit are fully utilized. Approximately half, (45%) replied that suggestions' implementation is done "sufficiently" as well as only a few of the proposals are not implemented. The two above replies cumulative reach the 69% and underscore the immediate response of the company to proposals and suggestions for improvement. In response to the answers, 26% indicates that only the major proposals are implemented. This percentage may be justified, as well as the proposals may require investments or resources that may not be readily planned. On the other hand, it is likely, changes less important not to meet strategically acceptance, neither to be easily achievable.

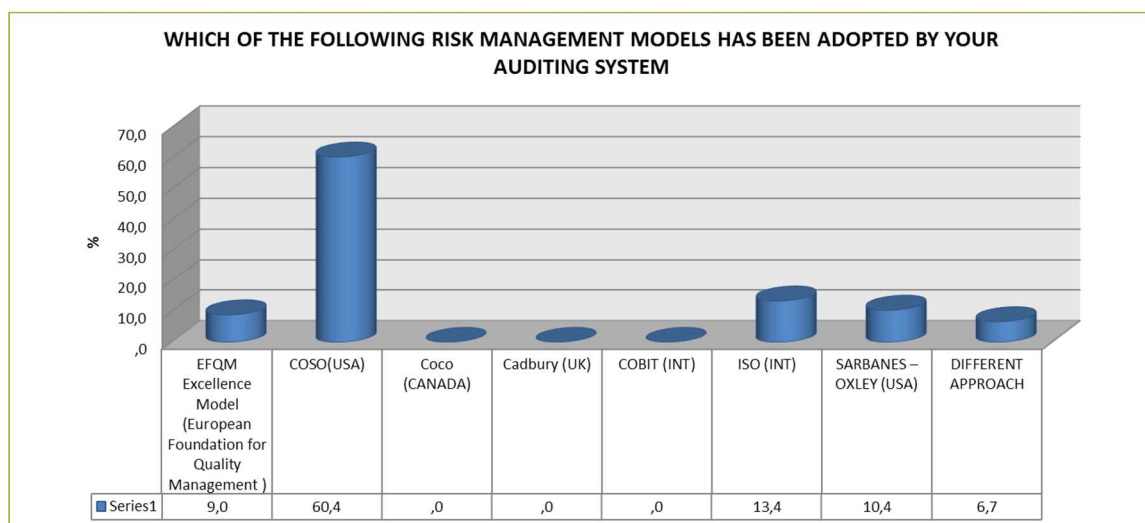


Fig. 5. Adopted risk management models

A rate of approximately 9% considers that the model has adopted is based on the model EFQM. With a larger proportion of all and substantially closer to Titan company' system is declared by percentage 60.4% the adoption of the American risk management model COSO. 13.4% considers that the model that the company has adopted resembles ISO. As with an approximately same percentage, 10.4%, employees consider that the system adjacent to model Sarbanes-Oxley. As a completely different model considers the 6.7% of the employees. Finally, the internal audit department of Titan is based mainly on procedures of the COSO (USA) model, it has been oriented through the context and the needs of the geographical diversification of the group so as to be able to meet individual requirements with the maximum possible homogenization.

5. Conclusions - Proposals

5.1. Conclusions

Regarding the importance of internal control, that within its assignment, maintains the proper and balanced operation of controlled sections, employees who are involved in the procedures, appear to be much updated. This important fact is attributed to an easy and no hassle, direct audit. The data collection and the requested intelligences can be retrieved with ease. The cooperation between Internal Control and every Section of the group is the administrative desired, at the same time section managers consider they are protected against a large amount of hostile issues and risks. Taking into account the structured procedures of Procurement Department, there is a moderate level of assurance against hostilities and risks, a fact that should be addressed by the Administration.

The audits carried out on the entire TITAN group are either general or specific. Macroscopically, they mainly aim to risk prevention and not so intensively on transactions. The frequency is optimal; however, it is neither painful nor laborious undertaking. Its frequency is commonly one audit in two financial years. Obviously, there are cases where retesting takes place anytime if it considered necessary. This allows achieving risk and mistake reduction as much as diminution of prescribed procedure deviations, but not during the execution of transactions. As a secondary objective of Audit, it is to assess the effectiveness and efficiency of the organizational systems and of course the efficiency of administration, general organization, sections' cooperation and communication within all the hierarchical levels of the Group. The above, recorded that it is carried out very satisfactorily.

This research also comes to a conclude that although the accessibility to all files and economic data, that are necessary, is almost fully authorized and adequate, the model, which the internal control has adopted, delivers with partial competence the anticipated results, which would benefit and would improve the efficiency of Procurement Department. The Audit method is found to be adjacent to the standard COSO (USA) model, incorporating procedures and an electronic control of COBIT (INT). This is an important observation concerning the implementation of the proposals of the internal control. The direct correlation of audits' effectiveness and proposals' implementation for improvement meets a major significance. Among Internal Audit's proposals, some are not implemented and in some other cases, only the most significant proposals are reaching implementation. This could be marked as a weakness, which may allow inherent risks, like procedures opacity, unsuitable products purchase and thus not optimal management of resources, but most important to a Group's principals disobedience, which will lead to the deterioration of corporate image to the external environment.

5.2. Proposals

Based on the research results, their annotation and analysis, the following proposal list is aiming to improve internal control's implementation methods, in order to achieve the maximum contribution of taking rational decisions, resulting in a more efficient financial and administrative management of TITAN group's Supply chain department:

- The immediate upgrading of electronic completion of Procurement procedures (FIORI-SAP), whose application effected noticeable increase to the efficiency of the operation of the Procurement and reduction of the delayed critical decisions risk.
- The establishing of electronic control systems IT, continuous monitoring (Continuous Audit Monitoring -CAM) which will provide the capability of direct and early risk detection at each stage

and will anticipate all possible risks. In addition, it would standardize, homogenize and automate procurement functions, as much as it would target and focus on high-risk areas. Also, it would reduce the need for onsite auditing.

- The adoption of data analytics methods, which would accelerate the export of complex conclusions upon the total of data and would track down suspicious transactions.
- To design a centralized SAP ERM system. It would allow greater synergies, economies of scale and more effective and even more efficient monitoring and control mechanisms.
- The strategic purchasing procedures and controls simplification and rearranging which would improve the traceability and control of purchasing transactions.
- The integration of electronic signatures systems would save time, either it would accelerate approvals which may not have been approved without the physical presence of the responsible persons or physical signature (e.g. contracts, invoices, approvals payments).
- The incorporation of system changes with regard to the Procurement Department, before extending widespread in minor sections and taint through generalization.
- The imperative and in-depth training of new systems users so as to become catalysts of continuous improvements. The education of older employees should be more targeted and orderly done, due to the overall familiarity lack with certain phases of technological era.
- The improvement of data and detail abstraction, relating to commissions of the past via online interactive worldwide purchasing IT systems.
- The computerization and electronic approval of the incoming offers. It is a fact that the current situation requires the use of more than one system for the execution of the correct procedure.
- The use of available resources that have been saved from the continuous monitoring system (CAM) to departments that have not been controlled by the latter, resulting to a deeper and more sophisticated approach.

References

1. Ross, S.A., Westerfield, R.W., Jaffe, J. (2009): *Corporate Finance*. Irwin/Mc Graw-Hill, 9thEdition, ISBN 978-0073382333, p. 22-23
2. Pappas, P. (2000): *Audit*. Benos Publications, p. 15-17, Athens, Greece (in Greek)
3. Kantzos, K., Chondraki, A. (2006): *Developing Business Action*. Stamoulis Publications, p. 23-24, Athens, Greece (in Greek)
4. Karamanis, K. (2008): *Modern audit: theory and practice in accordance with international auditing standards*. Athens University of Economics Company Publications, p. 12-14, Athens, Greece (in Greek)
5. Papastathis, P. (2014): *Modern Internal Audit (Internal Audit) and the practice of*. Printfair Publications, p. 83-86, Athens, Greece (in Greek)
6. Papastathis, P. (2003): *Contemporary Internal Audit in Enterprise-organizations and the practice of*. OPAP Publications, p. 41-42, Athens, Greece (in Greek)
7. Saunders, A., Millon Cornett, M. (2008): *Financial Institutions Management: A Risk Management Approach*. Mc Graw-Hill, 6th editions, ISBN 978-0-07-340514-8, p. 142-143
8. Dimitropoulos, E. (2004): *Introduction to Methodology of Scientific Research*. Ellin Editions, p. 49-51, Athens, Greece (in Greek)