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“The Effectiveness of Internal Audit and Internal Control Systems in Greek Banks”

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A thesis submitted for the degree of

***Master of Science (MSc) in International Accounting, Auditing and
Financial Management***

October 2016

Thessaloniki – Greece

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I hereby declare that the work submitted is mine and that where I have made use of another's work, I have attributed the source(s) according to the Regulations set in the Student's Handbook.

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October 2016

ABSTRACT

This dissertation was written as part of the MSc in International Accounting, Auditing and Financial Management at the International Hellenic University. This paper discusses the effectiveness of the Internal Audit and Internal Control Systems in Greek Banks. In particular, in the context of this thesis, beyond the literature review, empirical research will be conducted to complete the effectiveness of internal control systems surveying. There are a lot of risks in which the banking institutions are exposed day by day and for this reason it becomes necessary to have an organized and an efficient control to detect and treat risks in order to have a smooth and a stable function. Banks face various risks including financial, operational and liquidity risks and are obliged to apply the internal audit in order to mitigate and control these ordinary situations and reciprocate properly in a new business environment. It is very important to emphasize, that it is not possible for Banks to solve all the problems that they face, so they use the Internal Audit and Internal Control Systems to reduce these problems in a considerable way.

This Master thesis main purpose is to highlight the importance of internal control function, as well as their detailed presentation as imprinted and as experienced in the employees in banks, to attempt an objective point of view, to draw some conclusions and to arise possible improvements and proposals on internal audit. Also, it aims to highlight the complexity and the nature of the banking activity.

Also this study investigates the importance of the effectiveness of internal audit and internal control systems in the Greek bank institutions. The collection of the data was carried out through a questionnaire at a random sample of fifty bank employees in four Greek banks. The Quantitative approach of the data was made by a statistical analysis, and graphics using the Microsoft Office Excel 2016. The findings of this survey, guide us in drawing some conclusions as guidelines for the improvement of internal control and increase its effectiveness on Greek banks. Moreover, there are also some recommendations provided for further research.

KEY WORDS

Internal Audit, Internal Control Systems, Internal Control Effectiveness

ACKNOWLEDGEMENTS

In these lines, I would like to acknowledge my supervisor Prof. Andreas Koutoupis for his guidance which helped me to accomplish my research. And also, a great “thank you” goes to my family: my parents for their unconditional support, their wishes, their fortitude, their understanding, their help and my brother and my aunt for supporting me all these years.

Theodoridou Paraskevi

October 2016

PREFACE

Soon I will graduate for the second time, but this time from the International Hellenic university as a MSc. student. The first time it was when I completed my Bachelor Degree in 2015, and now one year later I will take the MSc. Degree. So, it's the first time that I had the opportunity to write a "Preface" for my dissertation, which I had never done before. So in the light of this process, I wrote the following:

This project would not have been finished, without the guidance of my people who encouraged me to pursue a MSc Degree, and who were there stand always next to me to support me through to its completion.

My interest in Auditing Sector began with a discussion that started two years ago with a friend of mine and this is the reason why I started to be interested in this field because something always fascinated me. Now, two years later my dissertation is about Internal Audit.

This dissertation is dedicated to my parents Konstantinos and Stella, to my brother Menelaus and to all the other family members. Thank you all!

Theodoridou Paraskevi

October 2016

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Thesis structure

This thesis consists of five modules in which attempted a deep conceptual approach of internal audit and internal control system function in Greek Banks. The first chapter refers to a depth analysis of the concept for both internal audit and internal control systems, and of course the conceptual delimitation of internal auditor. In the meantime, a historical review over the internal audit function is made and also reports of laws that surround internal audit are followed. Furthermore, it describes the discrimination of internal control, depending on the size, mission, duration, and Internal controllers' core responsibilities, while at the end it praises the necessity that the internal audit has within the companies.

The second chapter presents certain researches that are related with the internal control and are considered that is possible to contribute in the export of certain conclusions. Also it refers to the researcher of each research that was used in this thesis while it describes the subject that each research deals with. Moreover, it presents some conclusions of the above mentioned surveys.

The third chapter presents the relation between the internal audit function and Greek Commercial Banks. Moreover, it refers to the certain elements that commercial banks use for the necessity of existence of internal control in their departments, in order to maintain their value in the Greek ecosystem. Then, it refers to the Basel Accord Committee.

Furthermore, the fourth chapter determines the population which is used as the "Target Group" for the survey in order to export the conclusions. Also, it describes the sample technique that was chosen to follow the description from the questionnaire while it presents the methodology that was used for the quantitative analysis of the questionnaire.

In the same way, the fifth chapter provides the results of the queries, using statistical analysis and EXCEL for their graphical representation in rods, columns and pipes.

Finally, the sixth chapter provides it presents the conclusions and the improvements that have arisen from this thesis from the analysis of the questionnaire which were

distributed to banks and answered by their employees. Moreover, suggestions for further research are also provided in order to develop the internal control function in Banking institutions in the future.

CHAPTER 1

Conceptual Framework of Internal Audit

Introduction

This chapter describes the recorded historical development of internal audit and also presents the conceptual delimitation for both internal audit and internal control systems. In order to make the reader understand better the definition of this concept, a distinguishing between Internal and External Auditors is going to be presented.

Historical Development of Internal Control

Even though Audit Control developed in recent years, the necessity of it occurred many years earlier and it always connected with accounting operations. From historical data that were found, the audit control first appeared in prehistoric times with the exchange of goods between people. Those transactions between the primitive societies pointed out the necessity of accounting and audit control in order to have reliable transactions.

Written Evidence showed that in 3000 BC the ancient Nineveh people from Babylon practiced the accounting reporting in order to review the transparency of daily financial transactions (*Ramamoorti, 2003; Sawyer, 1996*). In ancient Athens around 300BC the Congress had created the “Accountants” as an institution for the business of finances of the city-state. Moreover, the “Responsible” together with the Accountants controlled the accounts of high profile people which they had withdrawn from public offices. They also, controlled the public loans given by the bankers to cities without paying interest. Correspondingly, in the rest of ancient Greece we find the “Examiner” who was charged with various control functions. In the late Middle Ages, Italy marked the rebirth of Accounting and the city of Pisa has its own registered auditor (*Ramamoorti, 2003*). In 1581 in Venice Italy, the first official “Collegio dei Raxonati (Union of Professional Auditors)” was created. It was a state institution that regulated rigor responsibilities of states and quickly influenced a lot of people (*Filios, 1984*).

Audit Controls were also detected in England in the Ministry of Finance, where three people kept three different ledgers of which one was kept by the Secretary of the Chancellery, the other by the treasurer and the third, by the representative of the

Kingdom. All the pages were consistent and that was a form of internal control. For the first time in England in 1525 time we encounter the term “auditor”.

The financial crises of the years 1825 and 1836, the development of the crafts and strengthening of the industry contributed to the proliferation and systematization of audits in Great Britain, so England is considered to be the hometown of the modern Audit function.

Nowadays internal audit is a developed and a recognized profession. Ten years ago, if somebody was engaged in an internal audit service, he would face an unrecognizable situation regarding the monitoring role, the services and approach. If we follow the evolution of internal control, we can see that before 1941 when the Institute of Internal Auditors was established¹, it was only an office function while the recordkeeping was done by hand and the auditors were needed only to check and find errors in the accounting data after the completion. The idea of the internal auditor is associated with the sense of security while its primary objective is to detect fraud (*Pickett, 2003*).

The audit function first appeared as part of a stewardship process and it was an auxiliary and supportive function. Later, in 1941, emphasis was given to the introduction of Institute of Internal Auditors- IIA and to the professional standards. Alongside with these developments, the Board of Directors and the Audit Committee as well as the external auditors contributed to enhance the role of the Internal Auditor. Finally, some changes were made in the perspective of internal auditors. On the one hand, they gained a complete form and spiked with additional activities and tasks, but, on the other hand, they resulted in reshaping their relations with auditees.

In Greece, the College of auditors appeared in 1931 under the law 5076/1931 and finally the "Chartered Accountants" was founded in 1955 under the law 3329 / 1955. The introduction of Certified Auditors with the assistance of the standards issued by the IAASB (International Assurance and Auditing Standards Board) and the Code Professional Ethics of IFAC (International Federation of Accountants) aims to ensure

¹ Previts, G.J., and B.D. Merino, A History of Accountancy in the United States: The Cultural Significance of Accounting (Columbus, OH: The Ohio State University Press, 1998).

the professional independence of the Certified auditors and the impartiality and transparency.

Conceptual Delimitation

In order to make the concept of internal control more understandable, a contrast is going to be made between the Internal and External Auditors. At this point, the main importance of the audit is to precisely assess the operations and business information, by expressing an objective judgement for their effectiveness. Moreover, the sooner the company management is informed of the risks, the more effectively and immediately the internal audit will take measures to fight them, aiming to increase productivity and competitiveness of the enterprise in the Greek Bank sector.

Internal Audit

Internal audit is an independent and objective activity that evaluates the operation of the System of Internal Controls of enterprises or organizations, and provides advices in order to achieve the objectives at the lowest cost. At the same time, it contributes to the improvement of its operations, and uses its controls in order to mitigate the risks lurking the company². The Internal Audit is performed in all the operations of an organization, such as management, financial statements and of course the protection of the organization's assets. All the operations can be performed by Internal audit except the ones that do not present an interest in audit function. In this way, internal audit controls all the parts of an organization and ensures if any deficiencies exist. However, it is very difficult to solve all the issues that a bank is facing and that's why we use internal audit to reduce them significantly. The measure that the organization should take into account is the protection of the assets, the reliability and the accuracy of the accounting records.

According to the Professional Association of Internal Auditors of the US, the Internal Audit Service³, includes the actions that are adopted by the administration to plan, organize and direct. These actions provide assurance in order that the following objectives will be achieved: a) *economic and adequate use of resources*, b) *protection*

² Sawyer, L., M. Dittenhofer, and J. Scheiner. 2003. Sawyer's Internal Auditing. 5th ed. Altamonte Springs, FL: The Institute of Internal Auditors.

³Institute of Internal Auditors. 2004. Standards for the Professional Practice of Internal Auditing. Altamonte Springs, FL: The Institute of Internal Auditors.

of its assets, c) reliability and information integrity, d) compliance with policies, procedures, laws and regulations.

In addition, the internal audit function is a component of corporate governance, and also, it is an important factor to the process of governing an organization while it evaluates and improves some certain assets:

- 1) It establishes the process of objectives and values,
- 2) It monitors the achievement of objectives,
- 3) It ensures accountability and
- 4) It protects value.

The Internal Audit shall inform all departments and all members of an enterprise that control procedures are in line with the decisions taken by the administration in order to exempt them from responsibility. Also, as it was stated by the principles of Corporate Governance, Internal Audit protects the interests of the shareholders and the employees while it evaluates⁴:

- The Internal Control System and subsystems,
- The risk assessment and effective management,
- The existence of the organization and effectiveness of internal processes
- The education and compliance agreements with employee management decisions,
- The comparison of operating costs,
- The reliability of financial statements,
- The evaluation of cooperation and communication between employees, the use of means of production,
- The prevention of fraud, damage and loss.

⁴ Whittington, O.R., and K. Pany, *Principles of Auditing*, 12th Ed. (Boston, MA: Irwin McGraw Hill, 1998)

The purpose of the audit is the accurate examination of accounting books -records and financial statements of the enterprise. During the audit process the verification of the report is based on the accounting system organization unit and thus the initial measurement and report of any problem that concerns the company is achieved.

The audit performed by the auditor who follows some certain rules - standards of professional conduct. These rules are called audit work standards (Standards of Fieldwork) and their purpose is to achieve the audit procedures. Moreover, the auditing standards are divided into four categories:

- the basic standards are referred to the purpose of checks and the conditions needed to become an auditor.
- the performance of labor standards which contain principles of technical control.
- the reporting standards, referred to a draft report by the auditor and
- professional qualification standards, referred to the professional conduct of the controller.

Financial Control, checks the reliability and the efficiency of the accounting system of the enterprise as well as it measures and presents the financial figures of the results which are carried out by auditors.

Operational Control, examines and monitors whether an enterprise is operated in accordance with the operational and administrative authorities of industry and it is usually performed by internal auditors.

Efficiency control in which there are internal auditors who are interested in the functions and procedures and positively contribute to the proper functioning of the business.

Compliance Audit aims at finding compliance with already agreed terms such as invoice payment check.

Special Control is a control that does not coincide with the above categories, but as long as the controller can handle the instance judicial review it can be performed.

Internal Audit - Code of Ethics

The main purpose of the Code of Ethics is to promote ethics culture in the profession of Internal Audit. In order to comply with Art. 48, Para 2, Subpara 2 of the Law on Internal Audit in the Public Sector, Internal Auditors should apply and defend the following principles⁵:

- *Integrity*: provides trust in the internal auditor's judgment. Internal Auditors should perform their work with trustworthiness, intensity and professionalism. Also, they should inspect and make the relevant notifications required by the law. They should not engage in act and in third parties, discreditable to their profession.
- *Objectivity*: Internal auditors should be impartial a balanced judgement in all relevant circumstances which are not influenced by their own interests, or other interests. Also, they will not "welcome" anything that may underestimate their professional assessment.
- *Confidentiality*: The Internal Auditor is considered to use confidentiality since, they do not disclose any kind of information without getting the proper authorization, unless there is a legal obligation in order to do that. They protect and show dignity in the relevant information and also they should be cautious in the use of the acquired information because, they must not use it for their personal benefit.
- *Sufficiency*: The Internal Auditors use their judgement and their experience in order to provide the Internal Audit Services. They should provide it in accordance with IAS for the Professional Implementation of Internal Control.

⁵ CIPFA's Code of Practice for Internal Audit in Local Government in UK 2006. This Code of Ethics is approved by the Minister of Finance in accordance with Art. 48, Para 2, Subpara 2 of the Law on Internal Audit in the Public Sector and is in compliance with the internationally applied Internal Auditors' Code of Ethics of the Institute of Internal Auditors

Internal Control Mechanisms

The internal control mechanisms bring in harmony the interests between managers and shareholders. The main mechanisms that affect the extent to which the management of a company represents the interests of the shareholders are as follows:

- The Board of Directors
- The Board Compensation
- The Institutional Stockholder Ownership
- The Takeover Market.

Internal Control Systems

The internal control system indicates an organized pattern of functions and procedures in an integrated control system which establishes the management and it highlights the organizations' effective function (*Cheung, T. Chi. and Qiang, Chen. 1997*).

A keystone in the design of an internal control system (ICS) is the risk assessment. Internal audit is a mean for the approach and the assessment of risk parameters. The internal control system runs all methods that are used by the management, in order to provide the most adequate collaboration with the Board of Directors of the business, to ensure the capital, to identify fraud and detect errors, accuracy and completion of accounting records and to prepare on time of all relevant economic information.⁶

The Internal Control system defines an organized and well-structured system that is directly linked to the rules that govern the management of the company and aims to provide security at the various interests the business has. An internal audit system includes the following subsystems:

- Internal Audit,
- the organizational structure of the company,
- Written manuals

⁶ Meigs, W. B., Larsen, E. J. and Meigs, R. F. (1984), «Auditing».

- the assessment of long-term and short-term planning,
- the markets policy - procurement and staff of the company,
- the assets and portfolio management
- Cycle and generating products and services.

Conclusively, the internal control system is necessary to assure the effectiveness of the business. It is noteworthy, however, that the internal control systems vary depending on the size of the business, its activities and its organizational structure. An important role in the creation of an internal control system plays the organization plan, the proper training of human resources and the accounting management in the business.

Accordingly, it appears that the creation of a trustworthy internal control system, should follow the following principles:

- Proper accounting procedures,
- Dividing of responsibilities,
- Editing of numbered and validated data by authorized persons,
- Protecting of Books from unreliable persons
- Regular verification of the company's assets,
- Covering all activities of the company,
- Standardization of operations (quicker and easier control of work).
- Control of inventories.
- Modern electronic information and communication systems.
- Adequate mechanisms for early identification, analysis and management of risks.

Every internal control system consists of control mechanisms and safety valves, designed to ensure the proper functioning of an entity, and promptly address the risks. Organizational safety valves are related to the basic organization activities and mainly focus on the study of internal operating procedures for matters such personnel regulations or quality assurance. Preventive safety valves aim at highlighting errors which are affecting the proper functioning of the entity's operations. Repressive safety

valves are operating in to take measures to address the discrepancies when obstacles are located to the proper functioning of the entity's operations.

An important condition in order the safety valves of internal control systems, to operate effectively, is, to be described with clarity and in detail so that can be easily understood and accepted by all employees. Specialized Safety Valves aim to the effective protection of the assets, in the necessary authorization on access issues. General Safety Valves focus on in the organizational structure of a company in terms of configuration, establishment of policies and compliance with all the members that constitute the company. Also, related with other issues, such as personnel selection and separation of responsibilities and duties.

The purpose of the internal control system

The objective of an internal control system could be reported as follows⁷:

1. It should be the administrative tool for the implementation of selected strategic objectives and to enable assessment by measuring the result and comparing it with the original targets.
2. It should move and act in organizational and business spirit in order to achieve vital needs. Also, it should be flexible and effective, be adjusted to the circumstances and needs to assure the viability of the unit in a competitive environment.
3. It should enable utilization and proper management of the resources available, the use of production, human resources and the safeguarding of assets elements. At the same time, it aims to better serve the operators.
4. It should be governed by operational and business conduct rules that provides the guarantees and the conditions by which the business risks to reach its highest goals by ensuring the robustness and the viability of the institution.
5. It should include, its Internal Control structure for the evaluation of operating efficiency of the system itself.

⁷ H. N. Ahmad, R. Othman, K. Jusoff, "The Effectiveness of Internal Audit in Malaysian Public Sector", Journal of Modern Accounting and Auditing, 2009.

6. It should allocate responsibilities and obligations, in an exquisite way between the different departments and the employees of the company. Moreover, there must be a regulation in the relations between them in order that they would contribute effectively.
7. It should be aware whether any kind of decisions - authorizations are known to all strata, are understandable if applied, across the hierarchy pyramid following the instructions established by the carrier.
8. It should provide free development initiatives for creative work and not place any restrictions on the development of the carrier.
9. Finally, it should aim to establish specific safeguards, in order to contribute to the coordination and the harmonious co-existence among its functions.

Basic Principles of Internal Control Systems

The internal control systems in order to be effective and to introduce to the auditors all the significant matters to take into consideration, must follow some certain principles⁸,

- a. *Adequate staffing*: Proper staffing of qualified executives, should be studied closely in a modern enterprise and especially at a time with internationalized market trends. Also, similar attention must be paid to proper evaluation and exploitation of labor potential of the strata up to the simple unskilled workers. As a result, evaluation and exploitation of the workforce is one of the key success factors of any state or private institution. The company should be consisted of appropriate and effective people. The entire pyramid of workers must be appropriately organized both qualitatively and quantitatively.
- b. *Decentralization of Management*: in order to ensure the distribution responsibilities. The distinction should be clear and appropriate in order to define the responsibilities of each worker. Given the degree of organization and relevant staff, the administration, and any part of the business should accordingly ensure that, they assign as many as possible competence to all hierarchical levels, and also, to be absolutely responsible for the result of the

⁸ Measuring the effectiveness of an internal control system by Dr. David Brewer and William List, CA, Hon FBCS.

activities. Finally, according to the measures that have been taken, an assessment of the operations and measuring the effect of both administrative bodies and the relevant departments should be ensured.

- c. *Separation of duties and responsibilities*: A clear separation of duties and responsibilities should be ensured to all levels of hierarchy pyramid. Especially in matters related to the vitality of the enterprise, as assets, cash, portfolio, vital importance production departments, tasks and responsibilities must be strictly identified.
- d. *Provision of Authorization*: is used for the transactions and the representation of the Company against third parties. It requires authorization from the board. The transactions presuppose appropriate authorizations, to those that are regulated by the operational rules and procedures in the context.
- e. *Ensuring the transactions*: the business should be in accordance with existing policies, procedures and guidelines of each transaction in order:
 - To clearly define responsibilities for approvals.
 - To clearly specify the procedures for screening before each transaction.
 - To guide in the proper recording and accounting of each accounting event.
 - To show all transactions in a proper and organized form, in order to give the appropriate information at any time.
 - To reduce the probability of error in any activity
 - To provide to the management the relevant information for the decision making.
- f. *Monitoring and inspection work*: in order to assure the compliance and to guarantee the quality of services and products, a systematic monitoring and inspection of the employees it should be made. The surveillance work is used to provide more effective services and consequently the proper functioning of the business.
- g. *Timely and regular updating Documentation*: the information is given through reports that are submitted to the administration. These reports must be processed

properly, organized and delivered promptly, regularly and scheduled at all levels of the pyramid structure, for remedial measures to be taken. These reports must be submitted on time and characterized by a simplified style and comparison as much as possible

- h. *Control area depending on the risk:* The design of the control area should meet the size and the nature of the entity, and its organizing must depend on the risk that it is bared in each section of the company.
- i. *Establishment of Internal Audit:* The existence of an internal audit department, is vital for the entity because, it monitors and evaluates the adequacy of the internal control system as a whole. Internal audit provides the potential for more objective and independent evaluation functions, which are essential in order that administration could have this information, as a helping tool to effectively manage the business risk.

Internal and External Auditors

With the term *Internal auditors*, we mean those individuals who work as a part of an organization or a company, and they announce the important information only to the company's audit committee and to the Board of directors. Also, Internal auditors play an advisory role since, they reassure that the company's organizing systems and that the risk management policies are smoothly operated. Furthermore, internal auditors are qualified persons that are trained in the field of internal auditing and they are not independent since they work in the organization.

On the other hand, with the term *External auditors*, we mean the independent individuals who are auditing a company or an organization, while they only announce relevant reports to the company's shareholders. External Auditors are qualified accountants and report on an annual basis. The external audit report shows if the accounts are in true and fair value. The scope of their work is to check the accounts, the balance sheet and the annual financial reports.

The Effectiveness of Internal Audit

Every business is different from others both in size and in management. The implementation of an effective internal control system is very challenging since each

business has its own needs. Nevertheless, we can mention some features which are necessary for the effectiveness of an internal control system.

Independence is an indispensable element for the effectiveness of an internal control system, as it allows auditors to act unaffected and free of interference⁹. The Director of Internal Control shall transmit the reports to the Board of Directors. This direct connection gives prestige to the work of the Internal Auditors. Furthermore, each enterprise in order to achieve its own purpose, needs an organizational plan which will ensure the proper functioning, as it will allocate the responsibilities among the members of the Internal Auditors. Since the current management of an organization does not have its own direct and reliable information to establish the safeguards for managing the business risks, the Internal Audit covers this gap with its advisory and repressive role.

In the same way, Internal Audit, aims at implementing the corporate Governance principles as a transparency calibration method and thus gives value to it, while it shields the interests of employees, customers, shareholders within the business. Disclosure and control are essential information that are related to the company and they are fundamentals in ensuring transparency, protection of investors and consequently the proper functioning of the capital.

Furthermore, the design of an efficient Internal Control System should guarantee the transactions done by the firm. In particular, the procedure of transactions must be checked and conducted according to the principles and policies of the administration, in order that it could control the registration of transactions, which must be preceded by authorization of principles and rules of accounting. The access to the financial data of the company should be done with the required documents. For a better control of the transactions there are four steps to be followed:

- Authorization
- Approval
- Implementation

⁹ Mihret, Dessalegn Getie and Yismaw, Aderajew Wondim 2007, Internal audit effectiveness: An Ethiopian public sector case study, Managerial auditing journal, vol. 22, no. 5, pp. 470-484.

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Moreover, another important factor that makes internal audit more effective is the labor inspection. It is vital to control all the methods and the processes and make suggestions where needed, in order to improve and ensure quality.

In addition, all information from reports, councils and conferences should be taken to be distributed throughout the administration to streamline the functioning of the financial unit. Also, each Internal Control System should correspond to the size and needs of each enterprise.

Audit Committee

The Audit Committee is an independent advisory board with increased responsibilities and also it is composed of senior executives and operates with the decision of the Board. The Audit Committee like the internal control is an extension of the management. The audit committee reviews significant accounting and reports issues for the management in order to interpret the potential impact on the financial statements. The Audit Committee meets at least four times annually, after the invitation of the President of the Audit Committee. The Audit committee with the management and with the external auditors, examines the results of the audit report. Moreover, Audit committee is the one that reviews the effectiveness of internal controls, while it also reports some observations and other important findings to the management. The Audit Committee have some responsibilities which are the following:

- To monitor and periodically assess the adequacy of organizational structure of the company and the internal control system
- To examine the procedures followed in preparing the financial statements and the information presented in company shareholders
- It supports the work of the external auditors to facilitate them to access the information they need to complete their work
- It is subject for both the appointment of auditors and for the determining the amount of their remuneration

- It is responsible for establishing the Rules of Operation and Organization procedures and to implement the decision administration
- exercises supervision in the Internal Audit Unit and facilitate its work
- collaborates with it to the configuration of the annual control program
- It is ultimately responsible for the results of internal controls.

In addition, the committee is responsible for the compensation of the auditors who work in the organization or the company and also, they control and direct them. Moreover, they assign relevant procedures for financial reporting and internal control matters. Often referred to as a “whistle-blower policy,” the procedures allow individuals to bring questions and issues to light without fear of retribution¹⁰. Audit committee meets with the external auditors separately in order to discuss relevant matters that the committee or auditors believe should be discussed privately.

¹⁰ Factors that Contribute to the Effectiveness of Internal Audit in Public Sector Zulkifli Baharud, Alagan Shokiyah, and Mohd Serjana Ibrahim.

CHAPTER 2

Literature Review on Internal Audit

Introduction

At this point it should be briefly presented some surveys related internal control and can contribute to export some conclusions. In the following paragraphs referred to the principle researcher - scholar of each survey, described the subject matter of, then indicate the methodology that has been followed and finally entered the conclusions reached by each survey.

Literature Review

<i>Author</i>	<i>Year</i>	<i>Subject</i>	<i>Methodology</i>
<i>Willie Hackett and Sybil C. Mobley</i>	<i>1976</i>	<i>“Historical Development of Internal Control”</i>	<i>Historical Review</i>
<i>Gareth, M.</i>	<i>1980</i>	<i>“Internal Auditor”</i>	<i>Literature Review and Questionnaire</i>
<i>Celal, K.</i>	<i>1989</i>	<i>“Internal Audit”</i>	<i>Questionnaire</i>
<i>Loukis, E. and Spinellis, D.</i>	<i>2001</i>	<i>“Internal Control Systems”</i>	<i>Literature Review</i>
<i>Ali, N. A</i>	<i>1994</i>	<i>“Internal Audit”</i>	<i>Questionnaire</i>
<i>Burnaby, P. and Hass, S.</i>	<i>2009</i>	<i>“Internal Audit”</i>	<i>Questionnaire</i>
<i>Rocco, R. V</i>	<i>1996</i>	<i>“Audit Committee”</i>	<i>Literature Review and Historical Review</i>
<i>Haron, H.</i>	<i>2004</i>	<i>“Internal and External Auditors”</i>	<i>Questionnaire</i>
<i>Alan, R.</i>	<i>1994</i>	<i>“Internal and External Auditors”</i>	<i>Questionnaire</i>

Literature Review 1

To begin with, the study of *Willie Hackett and Sybil C. Mobley* in 1976 recapitulates the findings of accounting historians who have studied the historical development of

internal control. As soon as the first entrepreneurs improvised a method for making profits, they also improvised new ways in order to control and protect them. They also mentioned in their survey, that since the profits was expanded they recognized that the complete trust was the key element and the most profitable policy, by establishing new forms of control. Also, the authors highlight some contributing factors of the continuous growth of internal control, which are the following: A) the futile development of an audit due to high volume transactions, B) the obligation to decrease the cost of the external audit, C) sophisticated control techniques to provide feedback on errors and fraud in time, to provide specific analysis and to ensure internal administrative controls, D) the needs ensure conformity of the accounting procedures and the consistency of the applications and also verify transactions and profit reports, E) the reliance on the system of internal control continues to increase since the external audit procedure has shifted from a review of past operations to a review of the system of internal control.

As far as *Gareth's M.* study in 1980 was concerned, he analyzed the role of the internal auditor and the conflicts between the auditor and the auditee, from a perspective that emphasizes the pluralistic nature of the organizational structure of life. For his research, he used questionnaires that where answered by internal auditors in different departments such as police stations (40 responses), educational institutions (172 responses) and social services (138 responses). The results of his survey showed that, audit function first appeared as part of a stewardship process by establishing the Institute of Internal Auditors and professional standards, given emphasis on this as a service of the Administration Management. The conclusion of this survey was that internal auditors perform only audit functions and advisory, while the author informs that many problems arise from the inherent conflicts between internal auditors and auditees and a reshaping of their relations is required.

In addition, the study of *Celal M.* in 1989, examined the internal audit function in the Turkish Banks and he used as methodology twenty-five questionnaires, which were sent to internal auditors in different Banks all over Turkey. Fourteen of the questionnaires were answered. He also, sent ninety questionnaires to auditors fifty of which were answered. The answers of Celal questionnaires indicate that the significance of internal audit in the Banking sector was boosted by the usage of technology (computers) and by the extension of Banking Institution worldwide.

Moreover, the results of his survey showed that the internal auditors are immediately linked to the size of the Bank institution.

Rocco, R. V. in 1996, designed a study in order to examine the role of professional organizations, government agencies, international accounting and audit organizations to publicize the standards for the election of independence of auditors at local and international level. Specifically, this study focuses on the role of the American Institute of Certified Public Accountants, the Institute of Internal Auditors, the Commission Capital Markets and Treasury of the US government. In order to support the conclusions of his survey, Rocco conducted a historical review and a literature research that resulted in the fact that independence is considered the pillar of audit and accounting profession.

Furthermore, in 2001 another survey was conducted by *Loukis, E. and Spinellis, D.* which highlighted the importance of system security IT. They sent a sample of ninety questionnaires to Greek public organizations and the percentage of the responses was 59%. They conclude that the Greek public sector has a basic level of awareness on security of information systems. But on the other hand, they were concerned about the confidentiality of Digital data, because only a small percentage has developed an integrated, systematic approach for safety information systems, including the internal control procedures.

In 1994, *Ali, N. A.* conducted a survey and sent a questionnaire to a random sample of 638 internal auditors who were members of the Institute of Internal Auditors and 262 answers were returned with a response rate above 41%. The results of the survey revealed a disfunctional behavior of the internal auditors under the time pressure budget, and he indicated the consequences and proposed some measures, in order to solve them. Specifically, compliance and financial control was more vulnerable to the disfunctional behavior than the operational control. The four main guilty disfunctions in the behavior of internal auditors in relation to time is the flatness control measures, inadequate supervision, the overdependence on presentations and representation of operating staff and the pressures of the time budget.

In their survey, *Burnaby, P. and Hass, S. (2009)* used research questionnaires to achieve their objectives. They focused on the practice of effective internal control, in

compliance with the Standards of Institute of Internal Auditors. For their purpose they used questionnaires which were sent to 99,000 members of the Institute of Internal Auditors in 91 countries. 9,366 answers were taken into consideration which is a rate of 9.5% in total. The conclusions show, the necessary compliance between the internal auditors and the International Standards Interior as far as to their duties, lack of necessary personnel and personal time are concerned.

The research study by *Haron H.* in 2004 highlights the fact that the external auditors are based in internal auditors (especially on the financial statements of the companies). Haron conducted a questionnaire which was sent to different auditing companies of South Malaysia (most of them were managers and B.o.D members). The results of the survey showed that the necessary features that the external auditors deemed from the internal auditors in order to rely on them, were the functionality and the technical competitiveness.

In order to comply with the Statement on Auditing Standards (SAS-65) issued in 1991 various aspects of the relationship between the external and internal auditors should have been clarified. In 1994 *Alan, R* conducted a survey complying with the SAS 65, and described the historical development of the aspects and the characteristics in the relationship between the internal and external auditors. Alan sent a questionnaire to a sample of 130 companies. The results that he obtained showed that in most companies, cooperation and teamwork which had been developed between internal and external auditors control highlighted that SAS had a little impact on these relations.

CHAPTER 3

Banking Sector

Introduction

Each Bank must be proportional to the scale and complexity of its activities as well as to existing risks relevant to these activities. The number of commercial banks has increased dramatically in recent years, as a result of market deregulation and the liberalization of capital flows. Nowadays, the Greek financial system is in a transition period and has faced a significant increase in the expansion of Greek Banks in the Balkans as well as partnerships with other Foreign banks and Mergers and Acquisitions.

Banking supervision has a long history, particularly in the US, where at the beginning of the century was an important policy area. The large number of bankruptcies of banks, especially during the Great Depression, was the main cause for the interest of economic principles to issue monitoring in the banking system. The focus was to restore the saving public confidence in banking institutions, while not confined solely to the United States.

After the year 1930, the problem of bankruptcy subsided greatly. The intensity of supervisory control decreased in USA and in continental Europe. Therefore, the supervision of international banking is one most recent phenomenon in economic history. By the end of 1997 forty-one commercial Banks were operating in the Greek financial system. This chapter analyzes, according to theoretical data, some key elements of Basel Accord Committee and also it refers to the organizational structure of Internal control in the Greek banks.

Although the rules that are adopted by the Basel commission do not have a forced legal status, the impact of Basel committee is particularly important and a large part of Basel's Committee's project has been adopted by the supervisory authorities of many states.

Commercial banks

Commercial banks are the most important financial institutions, and also, are the dominator of the financial system of each country. Commercial banks play an important role in the economy. They belong in the center of the monetary systems since they have the ability to affect the purchasing power of the public. Commercial banks provide a wide range of financial services including bank checks, money orders, government securities and issuing credit.

Commercial Banks moderate the deposits accounts and also they devote loans to individuals and to organizations. Moreover, C. B's are monitored by some federal authorities, such as Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve. The main purpose of the Commercial Banks is to create value. The creation of bank's value can be achieved by the increase of the share capital. The more the loans the bank grants to individuals or businesses, the more the interest rate is increased, resulting in the increase of the Bank's economic profits. Furthermore, Commercial Banks borrow and lend capital that they hold on their balance sheets.

Basel Accord Committee

The banking supervision has a great history and specific in the United States, where at the beginning of the century a huge number of bank where bankrupted. That was the reason, for financial authorities to be interested in the banking supervision and the supervision was not restricted only in the United States.

The Basel Accords is a set of regulations for the banking industry. The Basel Accord Committee, consists of representatives from central banks and regulatory authorities of the Group of ten countries plus Luxembourg and Spain¹¹. In addition, the main purpose of banking supervision is to assure that the banks operate in a safe and sound manner¹².

¹¹ The New Basel Capital Accord and Questions for Research by Marc Saidenberg Til Schuermann

¹² Basel Committee on Banking Supervision, 1988, "Internal Convergence of Capital Measurement and Capital Standards,

Basel Accord I

In order to prevent risk, Basel Accord Committee set minimum capital requirements for banks known as Basel Accord I and enforced by law in the Group of 10 countries in 1992. The first document that was drafted from the Basel Committee, had the purpose to set up an international minimum amount of capital that the banks should hold.

Basel Accord I focuses on capital adequacy ratio of banks. The risk of capital adequacy, is the risk of an unexpectedly loss, divided into five categories (0%, 10%, 20%, 50%, 100%). Specifically, it identifies the components and the quality in capital of banks and consolidate them into key categories of inside and outside the balance sheet figures, according to the implied risk that are associated with. The covenant of Basel imposed a single minimum capital adequacy ratio of, 8%.

Basel Accord II

The second international banking regulatory known as Basel Accord II was introduced in 2004¹³. Also, created better balance between the supervisory and economic capital. The Basel II was removed from the idea that the supervisory rules must be the same for all and declare that the most sophisticated and effective is one pillar on the assessment and the management of the undertaken so less capital will be interstate in a particular activity. The three pillars that the Basel Accord is focused are:

- Calculation of minimum capital requirements over credit risk (Pillar I)
- Market supervisory review process and establishment of principles and criteria relating to this supervisory review process (Pillar II) and
- Boosting market discipline by establishing rules including qualitative and quantitative information (Pillar III).

The Basel Accord II responded immediately to the demands of the market and the banking system, and became widely accepted as a standard for banking supervision.

¹³ Basel Committee on Banking Supervision, 1996, “Amendment to the Capital Accord to Incorporate Market Risks (No. 24)”, January.

Basel Accord III

According to the Basel Accord Committee, Basel Accord III is a regulatory standard on bank capital adequacy, stress testing and market liquidity risk¹⁴. It was agreed upon by the members of the Basel Committee on Banking Supervision in 2010–11, and was scheduled to be introduced from 2013 until 2015; however, changes from 1 April 2013 extended implementation until 31 March 2018¹⁵. The third installment of the Basel Accords was developed in response to the deficiencies in financial regulation revealed by the late-2000s financial crisis. Basel III was supposed to strengthen bank capital requirements by increasing bank liquidity and decreasing bank leverage.

The Basel Committee on December 16, 2010, published two important entitled reports which are the following:

1. Basel III: a global regulatory framework for more resilient banks and banking systems¹⁶
2. Basel III: International framework for Liquidity risk measurement, standards and monitoring¹⁷

Internal Control in the organizational structure of Banks

The internal control system consists of a set of processes and controls, which is used by management to achieve its operational and strategic objectives¹⁸. The decision of the Bank of Greece 2438 / 08.06.1998 stipulates that << *each institution must have an adequate and an effective Internal Control System (ICS), which takes part of responsibility for the implementation of registered objectives taken by the Board of Directors of the Bank* >>.

The internal audit department plays an important role in the management of banks, depending of course, in the size and extent of the bank. Internal control systems also

¹⁴ Basel Committee on Banking Supervision, 2001a, The New Basel Capital Accord, January.

¹⁵ Basel Committee on Banking Supervision Basel III: A global regulatory framework for more resilient banks and banking systems December 2010 (rev June 2011)

¹⁶ BCBS (2010), http://www.bis.org/publ/bcbs189_dec2010.pdf

¹⁷ BCBS (2010), <http://www.bis.org/publ/bcbs188.pdf> Basel III: the liquidity coverage ratio and liquidity risk monitoring tool, <http://www.bis.org/publ/bcbs238.pdf>

¹⁸ Framework For Internal Control Systems In Banking Organizations, Basle Committee on Banking Supervision Basle September 1998

play a consulting role which is contributed to all the departments and the services of the Bank. Moreover, the internal control is an independent function with an advisory nature, which is subject to management or the audit committee and identifies the weaknesses and suggests measures in order to mitigate such issues¹⁹. The power that internal control has is determined by its position in the hierarchy of the organization. In order Internal Control service to be effective, it should be directly act under the CEO, which in turn is authorized by the Board of Directors, in order to act and achieve the organizations goals.

Under the Law. 3371/2005 Internal Audit is appointed by the Board and it is subject to it, while it is supervised by a three-member "Audit Committee", which is elected by the Board and is responsible for final findings and reports drawn up by the Internal Audit department. This in turn, with regular and extraordinary reports, informs the Board of Directors of the Bank.

¹⁹ Regulation on Banks' Internal Control and Risk Management Systems *Published in the Official Gazette, issue no. 24312, on 8 February 2001*

CHAPTER 4

RESEARCH METHODOLOGY APPROACH

Introduction

This chapter identifies the population which is the "target group" of the research and the sample of the population which is the subset that is needed, in order to achieve the research purposes and to draw conclusions. Moreover, it describes the sample technique that was chosen.

Sample and Population

This research explores the effectiveness of Internal Audit and Internal Control systems of the Greek Banking Sector. As a result, a questionnaire was conducted and sent to fifty bank employees (executives or not) to four of the largest banks of Greece. The questionnaire was addressed to men and women of different ages, with at least five years of experience in the banking sector and was indicated to their knowledge of the Internal Audit and internal control systems. The initial thought was to send the questionnaire direct to the Internal Auditors of the Banks, because it was certain that they would have more accurate and more precise knowledge of the procedures and the systems, since this was the subject of their work. But the first thought was rejected due to the fact that the purpose of the research was to show the effectiveness of internal control and its systems of the banking sector. The initial thought had a great probability that the results would be followed by an excessive degree of subjectivity, because it is very reasonable that people often idolize their profession. That's the reason, that the study was considered to focus only to bank employees, men and women, with at least five years of experience in the banking sector.

In order to select the sample, the exact number of the population is required (*Cohen et al, 2000*). The Greek banking sector, has 44.3 thousand employees. In 2015 the employees in the Greek Banking sector, had a significant decrease in contrast with 2010 when the total employees were 59, 967. In Greece, 42 banks are operating, of which 13 are Greek ,21 are branches of foreign banks, 10 of them are cooperative banks and one is a financial institution. The population that was used in the survey was limited only to four Greek banks, that is the National Bank of Greece S.A, Alpha Bank, Eurobank Ergasias EFG Bank and the Piraeus Bank.

With the term Sample, we refer to a representative subset of the population which is selected for research purposes in order to draw conclusions for the whole population. The sample should be the same as the number of the population that is used for this research. This research follows a random method that was selected among the employees of the banking institutions and as a result, 50 questionnaires were sent to Bank employees and the responses reached 68%. It must be stressed though, that, the larger the sample is, the greater the accuracy of conclusions is.

Sample Technique

This study uses the simple random technique. The questionnaires were sent via electronic form (e-mail) and in printed form to bank employees. Consequently, the sample was convenient, due to the fact that the questionnaires were sent directly to the selected banks and that was also the best possible access, since colleagues, acquaintances and friends are working in them.

Research Questionnaire

At this questionnaire there are only "Closed-end" questions where respondents are asked to choose from default answers. All the questions on the questionnaire derived from a five-point Likert scale analysis, which measures positive or negative answers to a statement where is classified as follows:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

The Likert scale was used in order that the responder should indicate the degree of agreement or disagreement on the subject of internal audit. The scale of the questions that are used in the questionnaire is well balanced with an equal number of positive and negative answers.

Regarding the collection of the data, it was not considered necessary to provide clarifications during the completion of the questionnaire. The questions were easy for

participants to understand without any extensive explanation for answering them. After gathering the questionnaires, a check for its completeness and its validity was made. The survey (including the questionnaires) was completed correctly.

The purpose of this research that was conducted through the questionnaire, is to identify whether all the components of Internal Control and its systems, are vital in the effectiveness of internal audit in the banking sectors' survival and success.

The questionnaire was designed in a way that facilitates rapid completion and therefore, is consisted of two parts. The first part of the questionnaire is related with the five mechanisms of the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework. It is a well- known and accepted framework for internal audit function and it evaluates the internal controls and measures the effectiveness of internal control systems (Candrea, 2006). The five components of the COSO framework that are analyzed in the questionnaire are the following:



COSO's Framework 1

The second part of the questionnaire refers to the internal control systems. It is concerned about the issues, that are related to the characteristics of an Effective Internal Control System. Every business has different needs, form and size. So accordingly, the characteristics of an appropriate Internal Control System are the following:

- Independence
- Organizational Plan

- Satisfactory authorization system, powers and responsibilities
- Suitable internal audit staff

Independence means that the auditors have free entry to all the activities, files, and processes of the economic unit and they also carry out their control, free from any measures by having the commitment of the Management.

In each Bank the existence of an organizational plan is needed which identifies the functions and responsibilities of each department. This organizational plan should be reviewed whenever there are changes that make this necessary.

Each department of internal control should be composed of competent and well-trained staff, that they require experience and familiarity with all the transactions.

As it is demonstrated in practice, best auditors are those who for years worked in various fields as employees and executives because they gained a lot of experience and knowledge. The auditor should be able to detect errors and suspicious transactions and should be "read between the lines" and have the insight to identify errors and omissions that may have a significant impact. It requires continuous training and engagement with each object as the procedures are constantly changing and therefore the auditors should be replenished with new control methods.

CHAPTER 5

Presentation of the Questionnaires' Results

Introduction

As we mentioned in the previous chapter, the collection of the data was carried out through a questionnaire at a random sample of fifty bank employees in four Greek banks. The Quantitative analysis of the data was made by statistical analysis, and the graphs using the Microsoft Office Excel 2016. The findings of this survey, guide us in drawing conclusions as guidelines for the improvement of internal control and increase its effectiveness on Greek banks. Moreover, there are also some recommendations provided for further research. The questions of the questionnaire derived from a five-point Likert scale analysis which measures either positive or negative responses to a statement where is classified as follows:

<i>Scale</i>	<i>Rating</i>
<i>1.</i>	<i>Strongly disagree</i>
<i>2.</i>	<i>Disagree</i>
<i>3.</i>	<i>Neither agree nor disagree</i>
<i>4.</i>	<i>Agree</i>
<i>5.</i>	<i>Strongly agree</i>

Likert Scale Rating 1

For each question that was analyzed with a statistical analysis of the variables, shows a frequency table, percent rate and cumulative frequency. Also, in each question there is the corresponding bar graph where the supporting percentage of responses for easier interpretation and perception is presented. The results of queries are going to be presented, from all the responses we get from the questionnaires. The first part of the Questionnaire it refers to the Control Environment of a Bank.

Analysis of the Questionnaire

Question 1: *At what point do you believe that the Internal Control ensures the assets and employees of the enterprise in which you work?*

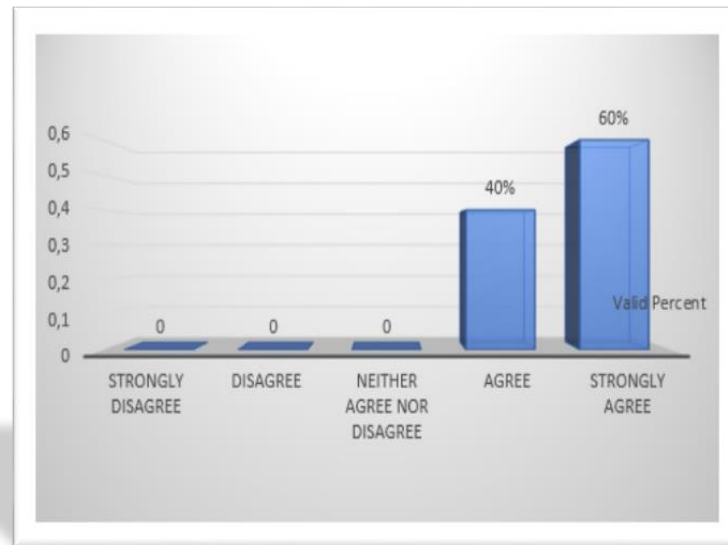


Figure 1

As we can observe the majority of the Bank employees 100% (40% of “Agree” scale and 60% of “Strongly Agree” Scale) answered that the Internal control ensures the assets and employees of the enterprise in a great extent. Accordingly, we arrive at the same conclusion with the descriptive Statistical analysis results, which are shown in the table below.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	0	0	0	0
Agree	20	29,41	40	40
Strongly agree	30	44,11	60	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 2

Question 2: *At what point do you believe that the Internal Control contributes to the optimization of the company's effectiveness?*

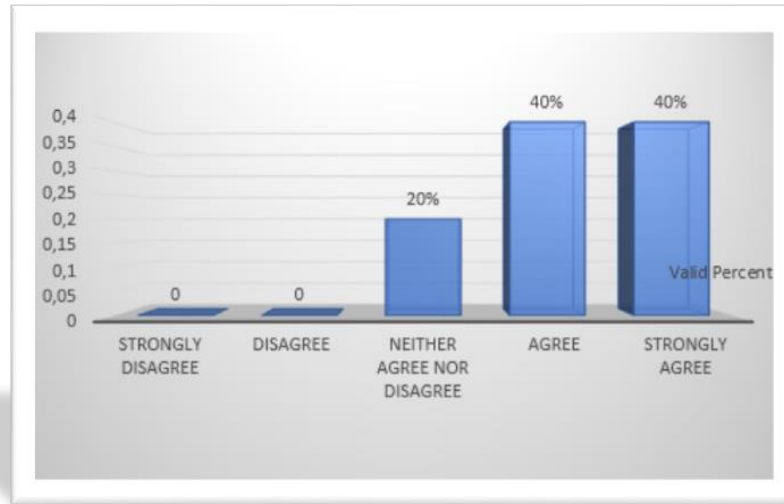


Figure 3

According to the above Graph, we can observe that 80% of the employees believe that the Internal Control contributes to the optimization of the company's effectiveness since, that after each control the risks are identified and addressed in order to help the bank to optimize its efficiency. The same results happened also in the statistical analysis that we used, the percentages of "Agree and Strongly Agree" scales are the same. But, on the other hand, a 20% percent of the responders do not agree or agree with this because maybe they do not have a spherical view about Internal Control.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	10	14,7	20	20
Agree	20	29,41	40	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 4

Question 3: *At what point do you believe that the Internal Audit contributes to the understanding and confronting of any danger found through the checking?*

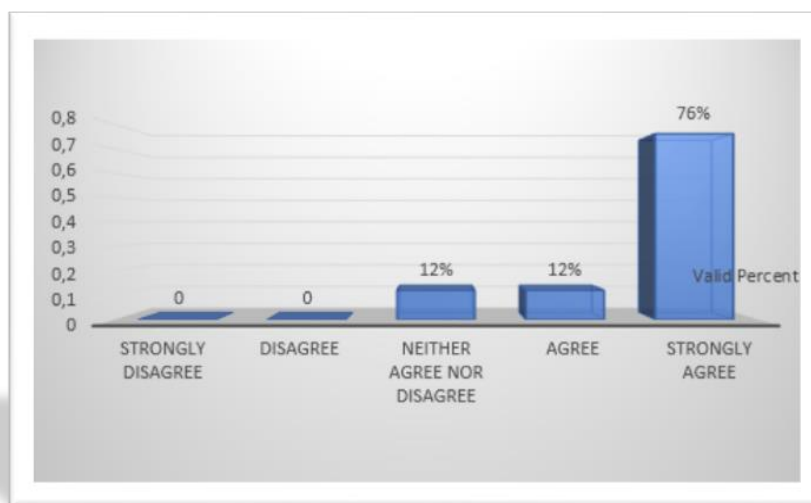


Figure 5

The 76% of the Bank's employees (38) strongly agree that the Internal Audit contributes to the understanding and confronting of any danger found through the checking. On the other hand, a 12% of the employees neither agree nor disagree since Internal Audit is the one that monitors and identifies the risks that lurking in the Bank. In the table below, we can see the statistical analysis which guide us to this results.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	6	8,82	12	12
Agree	38	55,8	76	88
Strongly agree	6	8,82	12	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 6

Question 4: *Is there an organized plan for every sector and department which is reformed according to current developments and demands?*

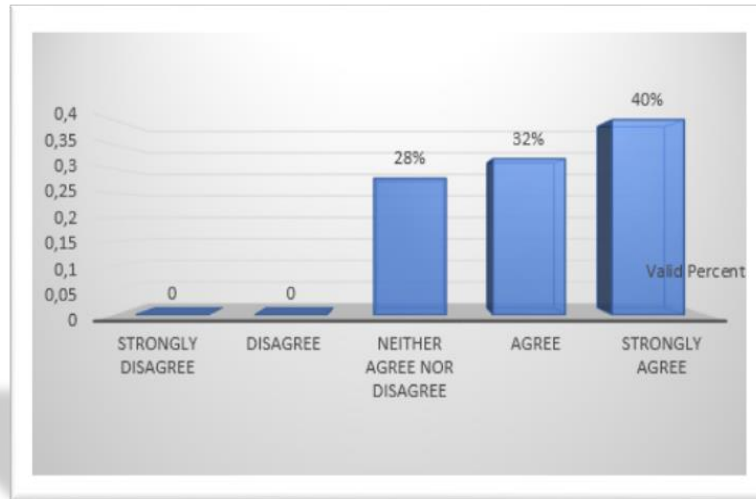


Figure 7

The fourth question refers to the existence of the Organizational plan for each sector and Department, which is reviewed in line with current developments and requirements. From Figure 4 we can observe that there is an Organizational plan for each sector and Department, because the 62% (32% “Agree” and 40% “Strongly Agree”) of the responders. But, on the other hand 14 people was between “Agree and Disagree” so we can assume that the Organizational Plan needs a small improvement. The work assignment it may be based on a plan and each employee knows exactly his tasks and responsibilities within the bank.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	14	20,58	28	28
Agree	16	23,53	32	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 8

Question 5: Has there been set a Code of Ethics or otherwise the rule of integrity and ethics by the employees?

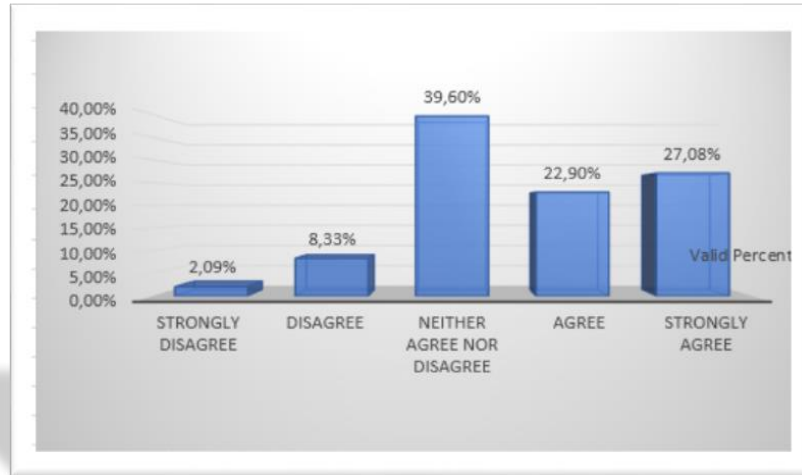


Figure 9

It appears that at least the second larger scale is the “strongly Agree” one. 19 employees who have responded, answered "a modest scale, so, we can assume that some employees have not set the rule of integrity and the Code of Ethics.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	1	1,47	2,09	2,09
Disagree	4	5,88	8,33	10,41
Neither agree nor disagree	19	27,94	39,6	50,01
Agree	11	16,18	22,9	72,91
Strongly agree	13	19,12	27,08	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 10

Question 6: *Does Internal Control take place not only in regular but also in irregular instances?*

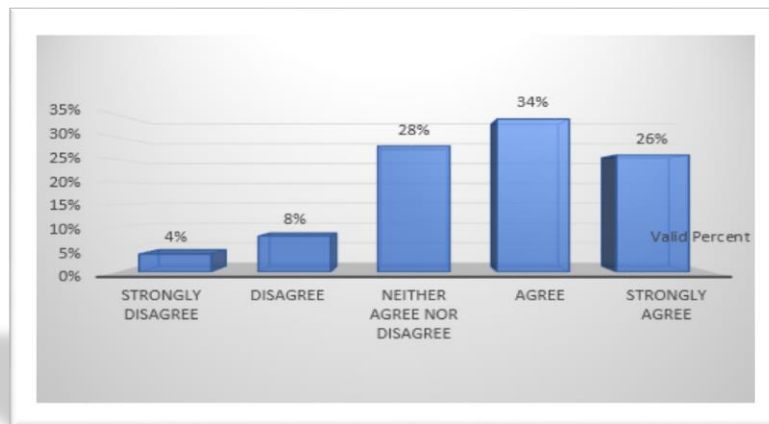


Figure 11

Another question that is related to the risk assessment is whether Internal Control take place not only in regular but also in irregular instances. The 28% of the responders maybe does not know whether or not the internal control take place in regular or irregular instances, and that’s why the answer “Neither Agree nor Disagree”. But on the other hand, the 50% of the employees agree in a great extent that internal control targets are adapted at regular intervals.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	2	2,9	4	4
Disagree	4	5,88	8	12
Neither agree nor disagree	14	20,58	28	40
Agree	17	25	34	74
Strongly agree	13	19,11	26	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 12

Question 7: *Are the goals set by the management realistic and easily achieved?*

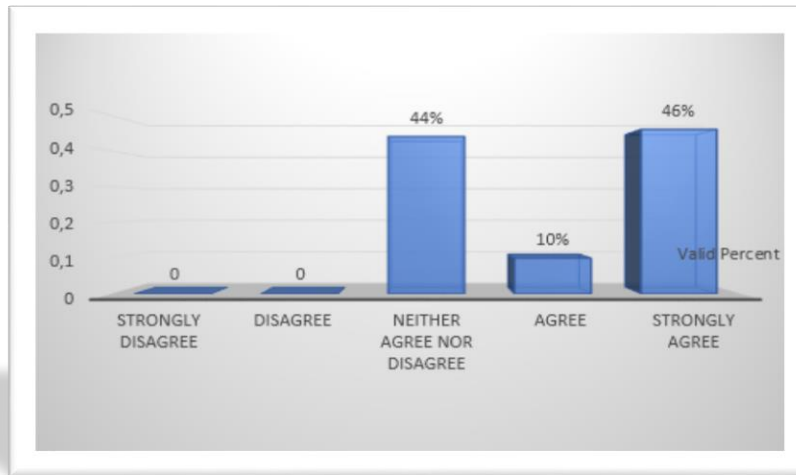


Figure 13

In the above question, the 46% of the population strongly agree to the fact that the goals set by the Management are realistic and easily achieved. But, the 44% of the employees believe that not all the goals are easily to achieved because they answered “Neither agree or Disagree”.

	Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0	0
Disagree	0	0	0	0	0
Neither agree nor disagree	22	32,35	44	44	
Agree	5	7,35	10	54	
Strongly agree	23	33,82	46	100	
Total	50	73,5	100		
Missing System	18	26,5			
Total	68	100,0			

Figure 14

Question 8: Does the control system prevent and secure any illegal transactions?

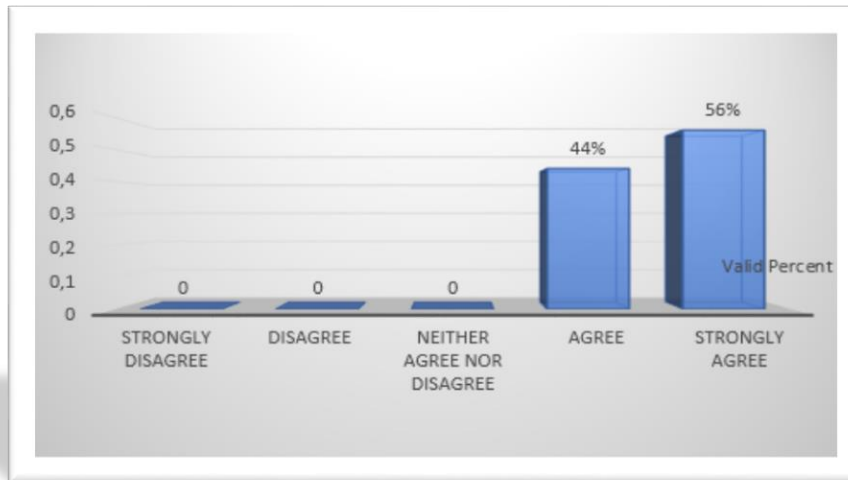


Figure 15

As we can observe, in the 8 question, the employees of the Bank agree to the fact that the control system prevents and secures illegal transactions. None from the employees give a negative answer. The same happens and in the statistical analysis that we use in order to find the variables.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	0	0	0	0
Agree	22	32,35	56	56
Strongly agree	28	41,20	44	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 16

Question 9: Are there any policies and procedures which define the way that the various tasks in the bank should be fulfilled and controlled?

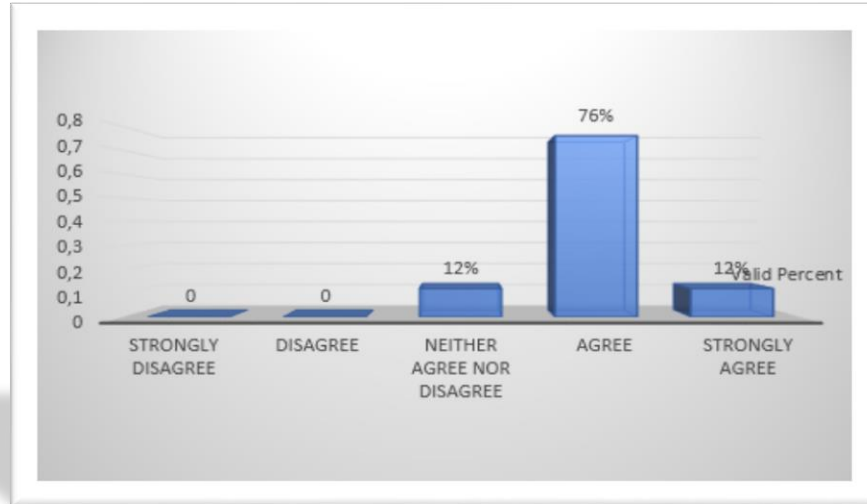


Figure 17

In question 9 of the questionnaire, the 76% of the employees answer “Agree” since, they believe that there are policies and procedures which define the way that the various tasks in the Bank are controlled. As we can observe in the statistical analysis 38 employees agree and 12 employees Neither agree nor Disagree.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	6	8,82	12	12
Agree	38	55,8	76	88
Strongly agree	6	8,82	12	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 18

Question 10: Does the internal control reassure if there is a correct operation of the computing system and if there is full protection of the bank's data?

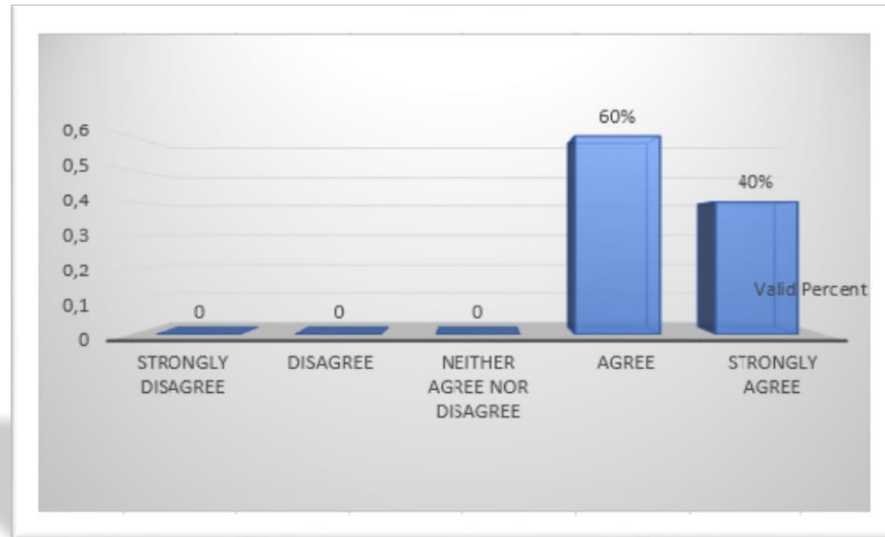


Figure 19

From the Question 10 begins the second part of the questionnaire which analyzes the effectiveness of Internal Control Systems. As we can see, at a great extent of 100% of the employees agree that internal control reassure if there is a correct operation of the computing system and if there is full protection of the bank's data. This is also the same and in the statistical analysis that we can see in the table below.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	0	0	0	0
Agree	30	44,11	60	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 20

Question 11: *At what point does the internal control anticipate wrong actions and mistakes that could not only put the bank's fame and interests in danger but the shareholders' as well?*

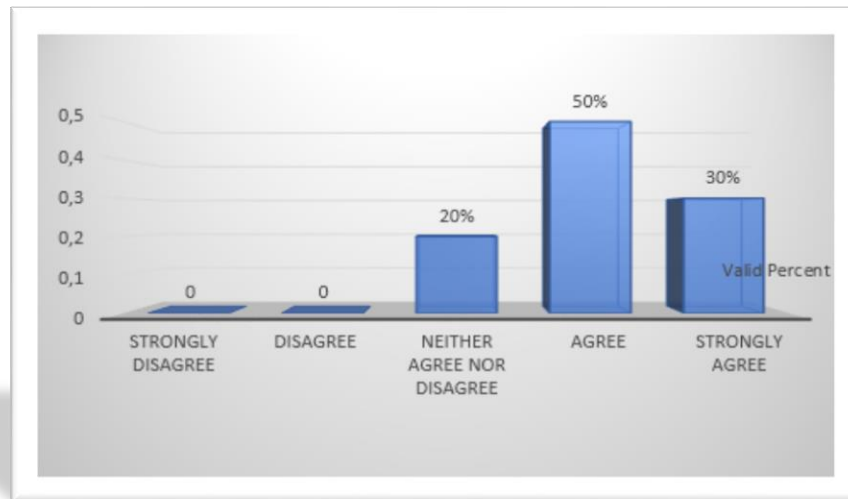


Figure 21

In a great percent the employees agree that the internal control anticipate wrong actions and mistakes that could not only put the bank's fame and interests in danger but the shareholders' as well. A small percent of 2% neither agree or disagree with this statement.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	10	14,70	20	20
Agree	25	36,76	50	70
Strongly agree	15	22,05	30	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 22

Question 12: *At what point can a transaction be checked whether it was made by the relevant clerk?*

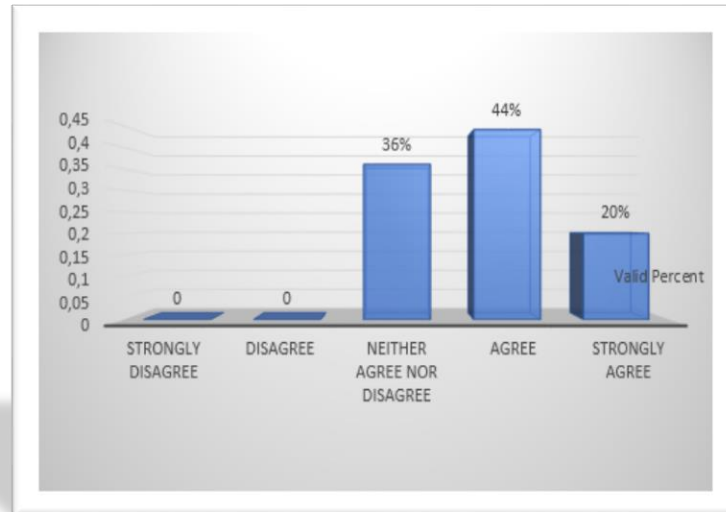


Figure 23

As can be seen, in the above graph, 18 (36% of the total) employees believe that sometimes the transaction can be checked whether or not was made by the relevant clerk. However, the majority of the responders 64% believe that internal audit “monitors” all the transactions that were made by relevant employees.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	18	26,5	36	36
Agree	22	32,4	44	80
Strongly agree	10	14,70	20	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 24

Question 13: *Has the internal auditor access to all data and information needed for the control?*

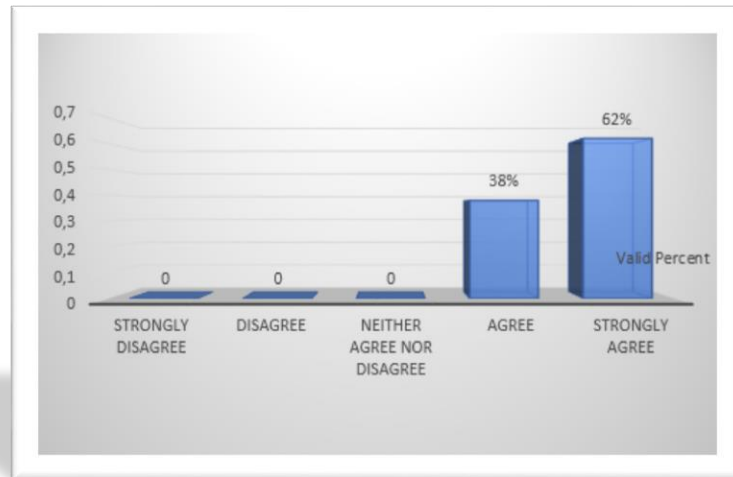


Figure 25

The 100% of the responders believe that the internal auditor has fully access to all data and information needed for the internal control.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	0	0	0	0
Agree	19	28	38	38
Strongly agree	31	45,5	62	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 26

Question 14: *At what point does the internal control act independently and impartially?*

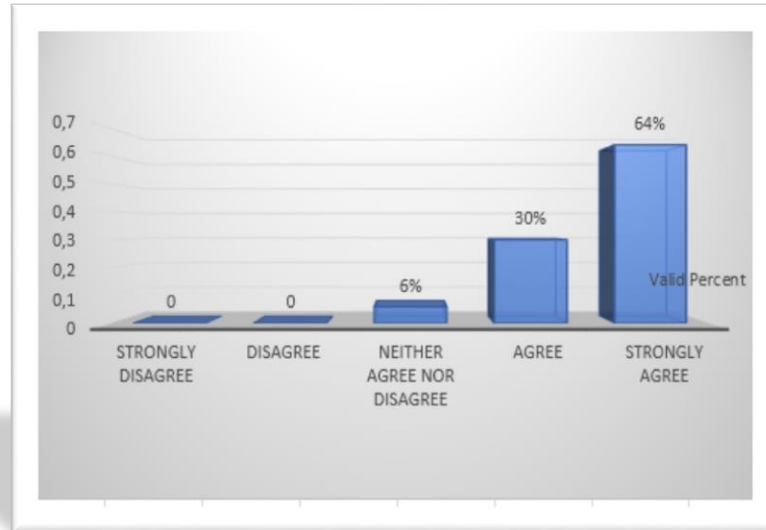


Figure 27

A great number of the employees 94% (32 people of total 50) agree that internal control acts independently and impartially and this means that the internal control is an essential part in Bank's operations. However, there is a minus percent (3 employees) that neither agree or disagree.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	3	4,4	6	6
Agree	15	22,05	30	36
Strongly agree	32	47,05	64	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 28

Question 15: Are the auditors for the bank's inspection changed at times?

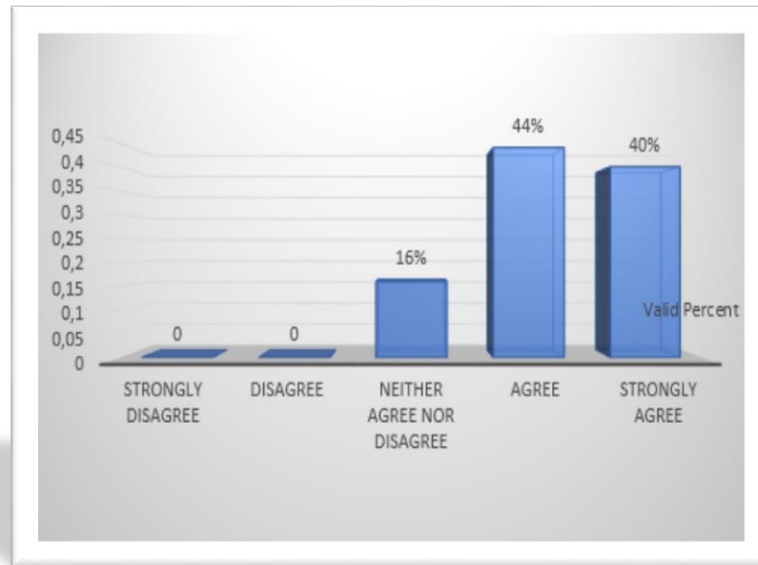


Figure 29

In the question 15, we can see that 84% believes that the auditors for the Bank's inspection changed at times, in order to improve the quality and the transparency of the Banking System.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	8	11,76	16	16
Agree	22	32,3	44	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 30

Question 16: *Is there any intrapersonal relation between the auditor and the employees?*

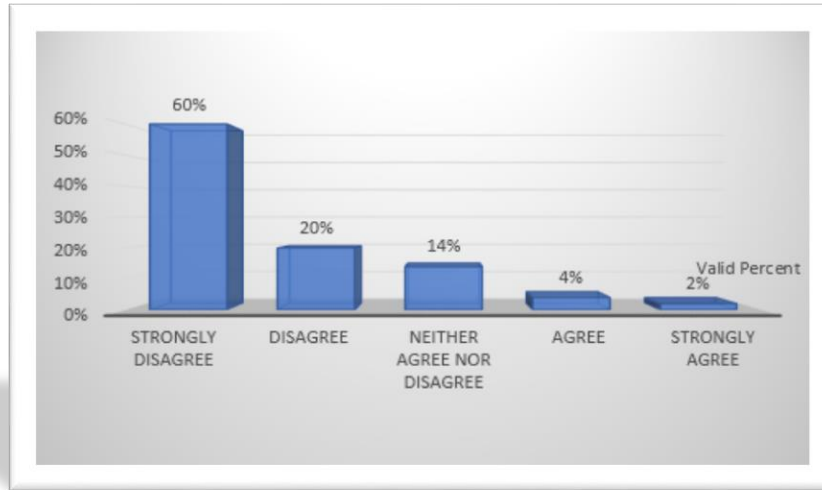


Figure 31

A lot of the employees believe that there is no intrapersonal relation between the auditors and the employees, and only a minus percent of 2% strongly agree. So, we can assume that there no changes to be done in order to improve this because its already improved.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	30	44,1	60	60
Disagree	10	14,7	20	80
Neither agree nor disagree	7	10,3	14	94
Agree	2	2,9	4	98
Strongly agree	1	1,4	2	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 32

Question 17: *Are the duties and responsibilities of the employees well defined?*

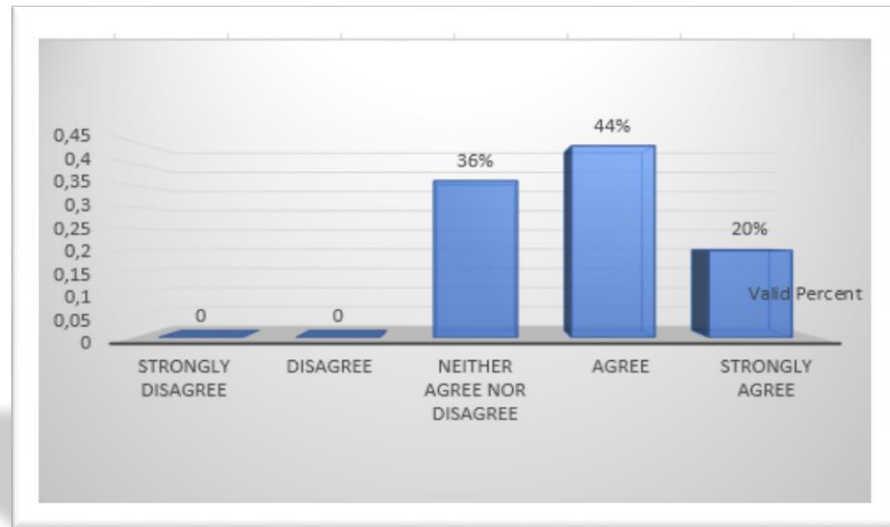


Figure 33

The replies of Banking staff are again positive for the most part, but on the other hand we can see that the 36% believes that not all the duties and the responsibilities are well defined to them.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	18	26,5	36	36
Agree	22	32,3	44	80
Strongly agree	10	14,7	20	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 34

Question 18: *At what point computing and informatics contribute to the control or even the improvement of surveillance?*

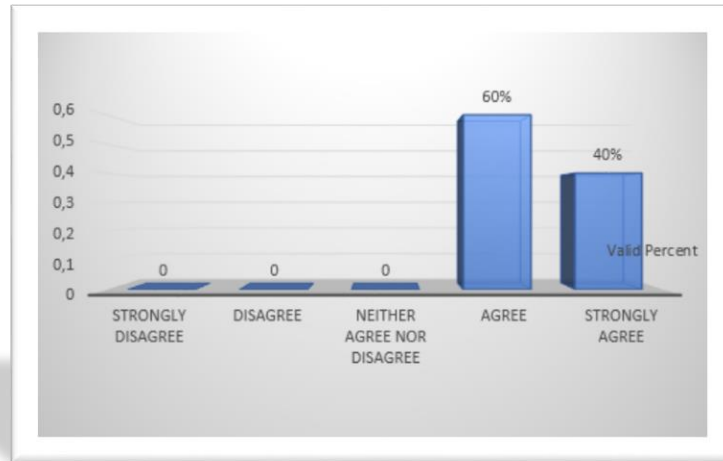


Figure 35

The 100% (50 employees) strongly believe that computing and informatics contribute to the control or even the improvement of surveillance of the bank. No improvements need in this point. The same information is given in the table below of the statistical analysis.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	0	0	0	0
Agree	30	44,11	60	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 36

Question 19: *Is the right operation of the bank's equipment (ATM, cards printer and money collecting machine) checked?*

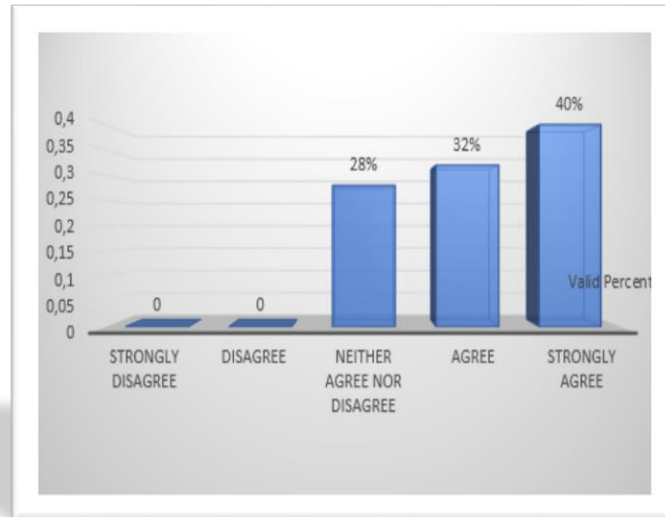


Figure 37

Seventy-two of the employees strongly agree that the processes on the ATM and other Banks's equipment are controlled thoroughly by several people in order to avoid abuse of money. There is transparency and the intersection of control because of the large amounts and the nature of the transactions.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	14	20,58	28	28
Agree	16	23,53	32	60
Strongly agree	20	29,41	40	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 38

Question 20: Are the audits presented only to the directors of certain sectors or to the whole personnel?

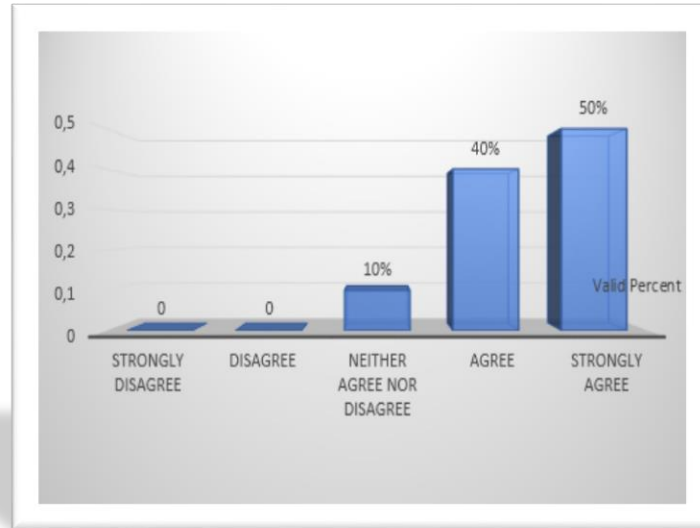


Figure 39

Finally, as we can observe the 90% of total employees believe that the results of the audit reports are shown to all the personnel, in order to improve the productivity and their competitive nature.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	0	0	0	0
Disagree	0	0	0	0
Neither agree nor disagree	5	7,35	10	10
Agree	20	29,41	40	50
Strongly agree	25	36,76	50	100
Total	50	73,5	100	
Missing System	18	26,5		
Total	68	100,0		

Figure 40

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Introduction

This chapter summarizes the findings of the dissertation work, derived both from the analysis of the responses of questionnaire and from the literature review. As well as provides suggestions for further research in order to develop the internal control function in Banking institutions in the future.

Conclusions of the Questionnaire

To begin with, in order to capture the effectiveness of internal control we used the model (framework) developed by the COSO Committee, which is one of the best tools for the assessment of effectiveness of internal control systems. Based in the COSO's Framework internal control consists of five components which estimate the effectiveness of internal audit. In the questionnaire, 2 questions for each component were used.

The research methodology that we used in this project, was via sending questionnaires in 4 Greek Commercial Banks. From the results of the statistical analysis of the questionnaire and with the help of the Likert Scale which classifies the responses ("Strongly Disagree", "Disagree", "Neither Agree nor Disagree", "Agree", "strongly Agree"), some conclusions were generated.

From the overall questionnaire we can assume that employees are subject to internal control since the duties and obligations of employees are known, but also they need to make some improvements to their responsibilities because sometimes they resulting in confusion in the performance of their work and during the audit.

In the same way, the transactions are controlled through audit procedures and that the internal auditors are properly trained and harmoniously integrate the control as there is cooperation between the various departments of the Bank and internal control.

Furthermore, the Banks should take into account the results of the research questionnaire in order to solve some issues that arise in their environment. Moreover,

the Banks in order to have an effective internal control system should select one that takes into account the risk that is lurking in each Bank department and should adapt it accordingly with IAS training and Basel Committee requirements. Also, the internal auditors are good to work without time pressure because sometimes this pressure is not a good factor for the collection of sufficient and appropriate evidence. Finally, internal auditors should take into account the complaints about malfunctions, because usually they are true and not fabricated. Surprisingly, in all the above sectors, the contribution of the internal audit function has high rates.

In a nutshell, the smooth functioning and the stability of the banks are prerequisites for a healthy and a thriving economy.

Recommendations for Future Research

Further research could be carried out for each sector separately, and resulting in comparative conclusions about the existence and the extent of operation of internal control, but this however requires a lot more time as well and the willingness of the companies to take part in the survey.

Also, another research could be carried out is for the effectiveness of Internal Auditors, in order to have an overview of their responsibilities.

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APPENDIX



SCHOOL OF ECONOMICS, BUSINESS ADMINISTRATION
& LEGAL STUDIES

*Master of Science (MSc) in International Accounting, Auditing and Financial
Management.*

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Confidential Survey Questionnaire

Dear Sirs / Madams,

The purpose of this dissertation is to highlight the importance of internal control and internal control systems, as well as their detailed presentation as imprinted and as experienced in the employees in banks, in order to attempt a more objective point of view, to draw some conclusions and to arise possible improvements and proposals on internal audit. Also, it aims to highlight the complexity and the nature of the banking activity

This questionnaire is confidential and the analysis of results will hold collectively and exclusively for the purposes of dissertation. Your experience as a Bank employee, will greatly contribute to conduct this thesis and to draw substantial conclusions.

If a question is considered highly confidential or do not know the answer, then please continue with the next one. Please select only one answer, noting with **X** the number corresponding to the answer you want.

The questions of the questionnaire derived from a five-point Likert scale analysis measuring either positive or negative response to a statement where is classified as follows:

<i>Scale</i>	<i>Rating</i>
<i>1.</i>	<i>Strongly disagree</i>
<i>2.</i>	<i>Disagree</i>
<i>3.</i>	<i>Neither agree nor disagree</i>
<i>4.</i>	<i>Agree</i>
<i>5.</i>	<i>Strongly agree</i>

The first part of the questionnaire is related with the five mechanisms of the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework. It is a well- known and accepted framework for internal audit function and it evaluates the internal controls and measures the effectiveness of internal control systems. The second part of the questionnaire refers to the internal control systems. It is concerned about the issues, that are related to the characteristics of an Effective Internal Control System.

Thank you in advance for your valuable assistance for this research.

Business data

- Bank Name:
- Responsibility, position (optional):
- Working Years in business:

Questions	1	2	3	4	5
<i>At what point do you believe that the Internal Control ensures the assets and employees of the enterprise in which you work?</i>					
<i>At what point do you believe that the Internal Control contributes to the optimization of the company's effectiveness?</i>					
<i>At what point do you believe that the Internal Control contributes to the understanding and confronting of any danger found through the checking?</i>					
<i>Is there an organized plan for every sector and department which is reformed according to current developments and demands?</i>					
<i>Has there been set a Code of Ethics or otherwise the rule of integrity and ethics by the employees?</i>					
<i>Does an Internal Control take place not only in regular but also in irregular instances?</i>					
<i>Are the goals set by the management realistic and easily achieved?</i>					
<i>Does the control system prevent and secure any illegal transactions?</i>					
<i>Are there any policies and procedures which define the way that the various tasks in the bank should be fulfilled and controlled?</i>					
<i>Does the internal control reassure if there is a correct operation of the computing system and if there is full protection of the bank's data?</i>					
<i>At what point does the internal control anticipate wrong actions and mistakes that could not only put the bank's fame and interests in danger but the shareholders' as well?</i>					
<i>At what point can a transaction be checked whether it was made by the relevant clerk?</i>					
<i>Has the internal auditor access to all data and information needed for the control?</i>					
<i>At what point does the internal control act independently and impartially?</i>					

<i>Are the auditors for the bank's inspection changed at times?</i>					
<i>Is there any intrapersonal relation between the auditor and the employees?</i>					
<i>Are the duties and responsibilities of the employees well defined?</i>					
<i>At what point computing and informatics contribute to the control or even the improvement of surveillance?</i>					
<i>Is the right operation of the bank's equipment (ATM, cards printer and money collecting machine) checked?</i>					
<i>Are the audits presented only to the directors of certain sectors or to the whole personnel?</i>					