

The role and the perceived impact of fiscal audits, conducted by the Hellenic Court of Audit (HCA), towards the effectiveness and efficiency of Greek Public Organizations

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Abstract

Fiscal audits may be considered as the guardian of public revenue and as a deterrent factor against financial mismanagement in public organizations. Fiscal auditing is an immensely broad discipline with strategic importance for society. In that sense, this paper aims to demonstrate the role of fiscal auditing conducted by the Hellenic Court of Audit (HCA), as a motivation tool towards the general improvement of public administration practices. The research focuses on exploring the perceptions of critical people in audited organizations, stemming mainly from financial/administrative or other departments that are directly associated with the Court's auditing procedures. It is considered that this research view, based on the perceptions of auditees, provides reliable and compelling evidence and can contribute significantly to the discussion on the implementation of good practices in public audits. For the research, primary data was collected through questionnaires addressed to public organizations that are obliged to fiscal auditing, under the rationale mentioned above. A statistical analysis followed, in terms of the relevant provisions, and an inferential process on the data was attempted. The research provided exciting results based on auditees' perceptions.

Keywords: Financial Management, Government, Public Sector Auditing, Hellenic Court of Audit, Survey, Statistical Analysis.

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1. Introduction

From the beginning of 2010, the global economic downturn has led most governments around the world to implement cutbacks and austerity measures, while the society's demands for more and better public services are more significant than ever [1]. In that environment, pressures for restraining the growth of public expenditure and for enhancing efficiency and effectiveness in the public sector have been intensified [2]. In accomplishing the task of improving the public sector, public administration monitoring, in the form of traditional compliance audits and more modern performance audits, has received increasing academic and professional attention [3].

The need for auditing originates primarily from the fact that governments depend on scores of bureaucrats to carry out their policies effectively and faithfully. A principal-agent problem consequently arises, and thorough monitoring on the Executive – or else public administration- is rendered necessary. Many states have attempted to mitigate the risk of administration's mismanagement by creating Supreme Audit Institutions (SAIs) who are to audit the legality but often also the efficiency -and more recently, the effectiveness- of the spending behavior of the various government bureaus [4].

For Greece, the corresponding SAI is the Hellenic Court of Audits (Elegtiko Synedrio), which is organized as a Supreme Court and is responsible for the prudent supervision of the legality and regularity of expenditure by public organizations. The Court's personnel comprise of judges with legal backgrounds and auditors with predominantly economic backgrounds. The HCA follows the judicial model (also known as the Napoleonic or Court model), and one of its main tasks is to conduct external audits on public administration, traditionally in the form of controlling the organization's compliance to the legality and regularity of financial management and accounting [5].

Professionals and academics consider external audits to be a key mechanism in the improvement of the public sector, especially in a period of austerity [6]. Moreover, the user perspective in external auditing is gaining a focal significance in the institutional scholarship [7,8]. Another characteristic of the field is that external audits may be conducted by following two main audit directions, the pre-audits (or preventive, ex-ante audits) which are held before or during the actual spending and post-audits (or repressive, ex-post audits) that are performed after the financial transaction takes place.

The HCA is unique in remaining the only SAI in Europe that continues to exercise preventive control over the expenditure of public bodies, limited to a strictly legal approach without a parallel exercise of performance audits. Consequently, the current practice is that public entities send their payment orders to the commissioner service of the HCA before execution for control and approval. The payment order is then either approved by the HCA or—if found illegal or irregular—returned to the controlled entity without a "visa" [9].

It should be noticed though that since 2013, the HCA has started to implement a

strategic reform program, as described in the Proceedings of the 19th HCA Plenum conference of the 30th October 2013 [10], which included a reassessment of the role and mission of the Court along with the introduction of new types of post-audits, mainly in the form of targeted audits on cases of major interest. Also, HCA is called to adapt to recently passed legislation that completely revokes the obligation for pre-audits, starting in 1/1/2019, and introduces the use of the international auditing standards of SAIs, the ISSAIs, in the practice of the Court.

Nevertheless, the Court itself recently admitted that the implementation of ISSAIs in its practice was literally at an early stage due to the lack of an audit regulation based on these standards [11]. Furthermore, it was admitted that the targeted audits which were programmed for 2014, 2015, and 2016 constitute only the beginning of a long-term effort to gain knowledge and analyze the risks about the public entities that are monitored by the HCA. In that sense, the strategic planning of HCA includes the gradual incorporation of all audit activities into the new framework of targeted actions, so as all significant public entities are audited at appropriate intervals.

2. The International Practice in External Government Auditing

2.1 Essential Aspects of the Scholarship of Auditing²

In an influential study of the 1990s, Michael Power (1997) described a general development towards an "audit society," where any activity of government -and society in a broader sense- eventually is going to be under audit [12]. This development was seen as a consequence of the new public management (NPM), which resulted in much broader use of audit and control mechanisms [13,14]. Since then, a lot of esteemed authors have discussed and expanded this idea [13,15,16,17]. Audit society's basic idea is that audits are primarily administrative rituals that produce comfort without providing beneficial impacts for society [12]. On the opposite, the prevailing stand is that audits affect and contribute to the effectiveness, efficiency, and accountability of the public sector [15,16,18,19]. Nevertheless, for both views considered, there is little evidence-based knowledge to support either of these claims, and thus there is an urgent to extend the body of knowledge in this area [15,20,21].

Traits of the audit institutions and the audited organizations, together with communication practices, play a crucial role when audit impact is concerned [22]. The constitutional mandate for auditors and the comprising the power of the media also carry a significance, while the impact of new perspectives of government auditing, as performance audits, need more research efforts compared to only a few academic studies that have been published so far [23,24,25].

Up to now, auditing relies heavily on examining quantitative documentation under a rationalized and standard-based approach [23], in order to avoid large liabilities of the auditors. Nevertheless, there are preliminary assumptions that auditors should take a less positivistic stand towards auditing and instead be more sensitive to the

auditees' and the professionals' experience of their reality [13].

In fact, the whole issue of the audit's impact and usefulness may be, in part, one of motivation. Auditing research is dominated by the experimental psychology scholarship and, to a lesser extent, by analytical economics, through a quantitative-deterministic research strategy. Academic research can be "useful" to auditors since it reinforces the legitimacy of the auditing profession, and the publication of academic books and journals can indeed reinforce that approach. For example, scientific knowledge may help to increase the prestige of auditors' expertise and the visible effectiveness of the audit process [26]. It can also be helpful for an audit firm when defending itself in a lawsuit case [27].

However, in short, the principle argument, even today, is about asking the fundamental question, 'what do audits produce?'. It can be maintained that the production of legitimacy is an intimate part of an apparently 'technical' audit judgment process, and in the process, the legitimacy of both auditor and auditee are co-produced. So the conventional answer for the previous question is that audits produce assurance or increased confidence in the subject matter. However, a more mischievous answer is to say that audits only produce paper [13]. The fact that audits produce -at least- some paperwork as proof of evidence is also central to the subject of legitimacy.

2.2 The explosion of audits in the Public Sector

The "audit society" articulates the recent extension of auditing practices to an increasing number of areas in public sector administration, especially in developed countries [12]. There is a tendency towards the "verification of everything", which has led to the need for more empirical evidence on the extension of audit type practices into new areas, such as safety, environment, and optimization of resource allocation [28].

The optimal performance of organizations has been a central focus -leading to an expansion of audit mandates- for commonwealth countries like the USA, Canada, and Australia, where the case of "efficiency audits" had emerged with a focus on public sector reform [29]. This approach was introduced under the so-called "new public management" program for administrative reforms in the 1980s and 1990s, which initiated a need to realize economies and efficiencies in public services. This expansion of auditing mandates enlightens the clear developments in state jurisdictions in favor of "value for money-VFM" and effectiveness auditing.

Consequently, it is suggested that the roles and operations of auditing are not fixed or self-evident but represent specific political and managerial discourses as the basis of legitimacy on some kind of audit practice [30]. This explains that, particularly in the state sector, all forms of auditing have always been more than a simple attest function. New roles, directions, and functional processes always emerge for auditors who always develop new practices to cope with the everchanging audit scope and demands.

3. Methodology of the Research

According to article 98 of the Greek Constitution, the Hellenic Court of Audit (HCA) is the national Supreme Audit Institution (SAI) of Greece with the jurisdiction to hold public organizations and their officers to account for the use of public funds or for their performance. Literally, the HCA's diachronic task is to be the controller and external auditor of the Greek public administration, and its focus is placed on how to safeguard public money and prevent financial mismanagement of public resources.

The Plenum of the HCA, as the highest formation of the Court, is responsible for deciding on matters of great importance, including its strategic direction in defining auditing procedures. According to the Proceedings of the 19th HCA Plenum conference of the 30th October 2013 [10], there was a re-direction of the Court's strategy in a 3-dimensional modern approach, for the first time in the Court's recent history. Directions were as below:

- The Introduction-Development-Rationalization of new types of post-audits performed by the HCA on the Executive
- The Enhancement-Refinement of financial management in Greece
- The Reassessment of the HCA's role and mission in the view of the Parliament and the Public Opinion

Powerful tools in the new auditing strategy are the targeted audits on fields of specific concern or greater public interest, the gradual revocation of pre-audits and some initial steps in introducing performance appraisals by using ISSAIs, although in the piloting form of checking only the organization's safety internal controls. Under that view, it is apparent that a significant instrument to achieve these strategic goals is the existence of an efficient internal auditing system inside the organizations themselves.

The new strategic rationale of the HCA renders appropriate that the scope of this research is outlined in primary research hypotheses regarding the perceptions of auditees on the impact of the performed changes so far, and the characteristics of the pertaining behavioral attributes. The research may reveal specific patterns in the auditees' perceptions for the Court's audits and may provide the opportunity for inductions to the population of the audited civil servants through statistical analysis. On that basis, this research aspires to be a useful tool for the HCA in order to promote its influence in public administration and generally in society, given the recent significant reforms in adapting its procedures to the modern international auditing framework. The research will be conducted by exploring the strengths and weaknesses of the HCA's auditing procedures, which could be used as a basis for further developments towards the achievement of HCA's objectives.

The objectives of the research, which are going to be materialized through the different sections of the survey's questionnaire, can be summarized as follows:

1. "To what extent the auditees, and the society in general, are informed of the role, the jurisdiction and the mission of the HCA?"
2. "To what degree the current auditing procedures of HCA are perceived as effective by the auditees. What are the strengths and barriers of classic HCA's compliance audits, conducted for the most part today, in promoting changes and improvements?"
3. "To what extent the forthcoming modern methods of HCA's auditing are perceived as competent by the auditees. What are the estimated impacts?"
4. "What is the effectiveness of HCA's communication channels towards the audited organizations and the society in general?"
5. What are the differentiated patterns of response among the different ranks of audited civil servants?

3.1 Design of the Questionnaire

The lack of extensive empirical evidence on the perceptions of auditees rendered necessary that a few questions were reformulated in order to facilitate a better understanding by participants. Other key issues specific to the case of HCA also emerged that had not been identified in scholarship, e.g. as to whether the abolition of pre-audits could result in sanctioning of innocent public servants.

Even though there is not an optimal number of questions in a survey, evidence has suggested that shorter questionnaires have better response rates than longer ones. For a web-survey, as the one decided for this research, the above estimation is confirmed in general, although exhibiting minor correlation with the response rate. As a rule of thumb, participants are more likely to answer the survey by chance when the number of questions exceeds 35. Moreover, when comparing paper versus web-based questionnaires, it has been found that a reasonable responding time should not be above 13 minutes [31]. For the needs of the survey, the final number of questions did not exceed the aforementioned threshold, and the estimated time for completion was around 5 minutes.

Additionally, a cover letter in the questionnaire's preface informed the participants about the purpose of the research and the background information about the researcher. Respondents were also assured about the anonymity of the research. Although, at first glance, the use of anonymous questionnaires provides a lower degree of reliability than the interview, it is estimated that it facilitates the unconstrained response by the participants and thus increases the validity of the conclusions.

The authors were expecting that the impact of HCA's audits could be a fascinating subject for public administration officers, especially those engaged in audits, and thus a brief description of the questionnaire's content was considered of much importance for the success rate of response. This is in line with the estimation that participants are more likely to contribute in a survey when they are involved in the subject under research and are interested in the outcome of the survey [32]. Considering the time restraints of the research, the 225 participants of the survey,

including a significant percentage of high ranking critical public servants, is considered a satisfactory sample of the affected civil servants' population.

The questionnaire aimed to address public servants working at all levels of the government apparatus, and its focus was placed on those employees that are closely related to the audits of the HCA. This means that the survey sample was confined mainly to people working in administrative or financial departments of public organizations, while a smaller number of respondents came from technical and welfare services.

3.2 Structure of the Questionnaire

Eventually, besides the usual demographic inquiries, the questionnaire consisted of 29 close-ended questions included in 4 sections that represent the broad directions and objectives of the research. The first part contains demographic questions like age and occupation, which is quite common in surveys. Demographics of gender were not included because it was found in a previous study by [5] that they are not significant when exploring behaviors against HCA's audits.

In the main sections of the survey, for reasons of uniformity of the primary derived dataset, there was an exclusive use of Likert psychometrics scales by providing five possible responses to each hypothesis statement, rating from 1 (strongly disagree) to 5 (strongly agree).

Section 1 includes questions Q1-Q9. The section refers to the role, the mission, and the overall impact of the Court, according to the perceptions of public administration's civil servants.

Section 2 includes questions Q10-Q19. The section contains independent variables on attributes referring to the effectiveness and barriers of HCA's audits in promoting accountability and changes in the auditees' public organizations.

Most of the questions were influenced by the work of [5] and [17], along with other international academic efforts focusing on changes and improvements in respect to SAIs' audits [4, 9, 33].

Section 3 includes questions Q20-Q26. The section contains independent variables on attributes referring to the possible impact in public management due to some of the forthcoming reforms in HCA's auditing procedures. Prior to each subsection, a brief informational text about the relevant legislation was provided to the participants in order to promote conversant answers.

The section is mainly based on relevant and influential bibliography included the work of [17] and other international scholars [6, 8, 23, 24, 25, 34, 35]. Moreover, one of the author's own judgment, as an HCA auditor, concerning the recent legislative amendments was helpful.

Section 4 includes questions Q27-Q29. The section contains independent variables that refer to the communication characteristics of the HCA, aiming to emphasize on the importance of interacting with auditees and the society, with a view to the recent auditing reforms. The construction of the questions was influenced by the work of [5] and other scholars [22, 36].

3.3 Practicalities of the Survey

The present research is focused on primary data that were collected explicitly for this endeavor and collected directly from the target sample. The procedure for the distribution and collection of the primary data consisted of the following stages:

- The design of the survey was implemented using the online Google Forms application. The application offers free of charge a variety of user-friendly tools that can tailor a survey with a wide range of question types according to the specific needs of the researcher. Later in the process, the distribution of the questionnaire can be implemented through different channels, and moreover, responses are automatically collected and then exported to a spreadsheet for further analysis.
- The questionnaire was accessible through an electronic link, which greatly facilitated an easy and fast way to collect perceptions on the research statements. Moreover, this approach is ideal for providing access to a more random sample of participants, increasing the credibility of the database's independence, while the fact that participants were responding in their own pace usually produces more truthful and honest responses. A researcher can also use an internet survey to increase the sample size and reduce costs and time required for the collection of data.
- The questionnaire was uploaded on the 15th of April 2018, and the survey ended by the end of June 2018. Participants were given a margin of two and a half months to complete the questionnaire, a period which was considered enough in order neither to press them to respond nor to forget it and not answer it.
- The link of the questionnaire was sent by email to personal contacts of the researcher in different public organizations in Greece, followed by mail or telephone calls to enhance the response rate. Contacts were asked to participate in the survey and then invite further acquaintances that fit the sampling requirements. Nevertheless, even though the strict anonymity and the lack of any identity recording (e.g., emails) in the responses cannot permit the authors to provide an educated conclusion, it is presumed that the "snowball effect" was not significant in this case since all personal contacts were high ranking civil servants without much spare time to spend. Furthermore, they were requested to inform only people that are directly involved in the audits of the HCA, which is more likely to be only their few closest colleagues.
- The number of respondents by the 1st of July 2018 was 225, and the answers were saved without containing any information about the participants ensuring anonymity. Since the procedure was automated, all responses were being properly completed, and no rejections were made. The response rate cannot be estimated since the questionnaire was publicly announced. Data

were later visually investigated for extreme responses (e.g., all statements are answered as strongly disagree), and no such case was found.

3.4 Data Analysis Strategy

Collected data from the electronic questionnaire were exported to Excel 2016, and the first coding of the questionnaire was implemented in order to facilitate further analysis and management of the dataset. Besides the usual numbering of the Likert grades from 1 to 5, demographic variables were also codified for their available answers starting from number 1 onwards. Finally, the all-numeric dataset was transferred to SPSS 24 for Windows for the statistical analysis *per se*.

The study employs two types of statistical analysis, a descriptive and an inferential one. For the descriptive part, the fact that all variables are ordinal leads us to use percentages -or proportion- of answers to describe the dataset. Averages and standard deviations are also reported for the conclusiveness of the research. Frequency tables and charts were constructed, while cross-tabulations were employed wherever the analysis required further detailing.

At the level of inferential statistics, the choice of analysis techniques was made on the basis of the type of data available, combined with the research hypotheses. Most of the collected data in the research's statements come in the form of Likert Scales, while demographics are captured through categorical variables that can take on one of a limited, and usually fixed, number of possible values, assigning each individual unit of observation to a group of nominal category on the basis of a qualitative property.

For the Likert scales, even though such data can be often treated as continuous or interval due to the robustness of the F ratio, a more conservative approach suggests that for ordinal variables, the use of non-parametric techniques is the more appropriate one. This is because the distance between Likert items, e.g., between 'Agree' and 'Strongly Agree,' cannot be measured, nor can it be considered equal to the distance between other Likert items, thus characterizing Likert scales as ordinal variables.

The following statistical tests will be performed:

1. Wilcoxon one-sample single-rank test (non-parametric). $H_0: Md=3$
2. Student t-test (parametric). $H_0: M=3$
3. Wilcoxon–Mann–Whitney U (non-parametric) It is used as the non-parametric equivalent of the t-test for the mean difference between two independent samples. When data is continuous (scale), this test is used to check for equality of medians between two independent samples.
4. Kruskal-Wallis tests (non-parametric). The Kruskal Wallis test is the most widely used non-parametric method to measure differentiation across different groups (>2)

5. Spearman's rho correlation tests (non-parametric). These tests are used to examine the correlation of one attribute/variable in relation to others, or else if the variables are statistically related
6. One Way ANOVA (parametric). ANOVA is used to compare differences of means among more than two groups.
7. Linear Regression analysis (parametric). It is used to estimate-predict a dependent variable Y by one or more dependent one(s) X. Given that the underlying concept of the 5-point Likert scale may be continuous, and that there is some indication that the intervals between points are approximately equal, the linear regression method may provide credible results.

The statistical software used is IBM SPSS 24, and all tests are performed at the 5% level of significance.

3.5 Analysis of the Dataset Dimensions

Every principal component summarizes an attribute of the dataset. Indices are then utilized to further represent these attributes in the statistical analysis. For the case of the present dataset, the following construct/collective variables are derived.

- IND1: Represents the original variables Q5, Q6, Q10, Q11, Q12, Q13, Q14. This index describes the positive impacts of classic HCA's audits, i.e., aiming at the legality and regularity of financial management.
- IND2: Represents the original variables Q7, Q8, Q9, Q18. This index describes the negative impacts of classic HCA's audits.
- IND3: Represents the original variables Q21, Q22, Q23. This index describes the negative impacts of modern HCA's audits, i.e., aiming at reducing pre-audits and enhancing the performance of public organizations
- IND4: Represents the original variables Q25, Q26. This index describes the positive impacts of modern HCA's audits.
- IND5: Represents the original variables Q27, Q28, Q29. This index is based on judgment and describes the communicational dimension of HCA.

It must be noted that for the construct variables, averages (instead of totals) of the original components were judged more appropriate to ensure that the "new" variables are also measured on the 5-point Likert scale. In that sense, although the original components have fragmented values between 1 and 5, the collective variables IND1 to IND5 are continuous within this range, and parametric tests can be performed.

After determining the number of homogeneous (sub)-scales, Cronbach's alpha should be calculated for each (sub)scale separately, i.e., for the sum of component variables in each of IND1 to IND5. By this method, the reliability of the study could be concluded, and the derived indices' internal consistency verified. It must be

noted, however, that since the directionality of the questionnaire changes continuously, a Cronbach alpha for the whole dataset will not render any useful results.

Table 1: Cronbach alphas for the dimension (collective) variables IND1 to IND5

Dimension Index	Conbach's alpha
IND1	0,818
IND2	0,740
IND3	0,750
IND4	0,811
IND5	0,607

All alphas >0.7 indicate increased reliability. For IND5, the value of $a=0.607$ is acceptable as adequate for this study, but further research is suggested.

4. Findings of the Research

Summarizing the results of the research, we may end-up with useful conclusions regarding the role and impact of public (fiscal) audits performed by the HCA, contemplated by the perceptions of auditees, and implicitly by the public opinion, on the mission of the Court. Moreover, conclusions can be inferred on significant issues regarding the effectiveness of HCA's audits, as perceived by the participants who work in audited public entities, and the impact of the new auditing reforms of the HCA that are appurtenances mainly of the forthcoming complete revocation of preventive audits. The main conclusions of this research, although not exhaustive, are provided below.

4.1 1st Research Objective

"Is the role, mission, and jurisdiction of the Court known to auditees and the society?"

The survey renders that a significant part of the sample participants (71.20%) in Q1 feels well informed about the role and the mission of the HCA. Nevertheless, the regression analysis of Q1 provides evidence that auditees' knowledge on HCA is mostly explained by their negative perceptions on HCA's classic audits (e.g., symbolic role, not a significant impact, raise costs without real benefits etc). This is literally an indication that negative stereotypes prevail among auditees about the traditional functions of HCA, which for the most significant part of public entities are coincided with legality and regularity compliance audits.

On the contrary, most of the participants in Q2 (74.40%) do not believe that public opinion is sufficiently informed about the functions of HCA. Nevertheless, also, in this case, the regression analysis of Q2 provides evidence that society's knowledge of HCA is also mainly explained by the negative perceptions about the Court's classic audits. Furthermore, these negative stereotypes seem to have a more

significant effect on the image of HCA to society than to the auditees' population since ($|b_{Q2,IND2}| > |b_{Q1,IND2}|$).

Additionally, both the regressions of Q1 and Q2 render that the knowledge on the Court is strongly related to the communication policy of HCA. The significant regressors of the dependent variable Q1 explain its variance by $R^2=30.00\%$, and of Q2 by $R^2=15.60\%$, which are relatively high percentages considering that there was not any pre-adjusted or calibrated set of questions in the scholarship that the questionnaire of the research could be based on.

Table 2: Regression Analysis for dependent Q1 - Coefficients^a

		B	Std. Error	Beta		
1	(Constant)	2,661	,829		3,211	,002
	Ind1. Positive Impacts of Classic HCA's Audits	,143	,145	,100	,987	,326
	Ind2. Negative Impacts of Classic HCA's Audits	-,286	,108	-,260	-2,655	,009
	Ind3. Negative Impacts of Modern HCA's Audits	-,038	,100	-,033	-,384	,702
	Ind4. Positive Impacts of Modern HCA's Audits	,008	,076	,010	,110	,913
	Ind5.Communication of HCA	,447	,120	,342	3,722	,000

a. Dependent Variable: 1. Auditees are familiarized with the Court

Table 3: Regression Analysis for dependent Q2 - Coefficients^a

		B	Std. Error	Beta		
2	(Constant)	2,319	1,025		2,262	,026
	Ind1. Positive Impacts of Classic HCA's Audits	-,140	,179	-,086	-,783	,435
	Ind2. Negative Impacts of Classic HCA's Audits	-,343	,133	-,271	-2,573	,011
	Ind3. Negative Impacts of Modern HCA's Audits	-,052	,123	-,039	-,421	,675
	Ind4. Positive Impacts of Modern HCA's Audits	,080	,094	,080	,848	,398
	Ind5.Communication of HCA	,540	,149	,359	3,634	,000

a. Dependent Variable: 2. Civilians are familiarized with the Court

4.2 2nd Research Objective

“Are the classic compliance audits of HCA effective? What are the pertaining strengths?”

IND1 – (Q5, Q6, Q10, Q11, Q12, Q13, Q14) positive impacts of classic HCA audits.

It is interesting that when the survey participants were asked directly about their view on the classic compliance audits in question Q3, most of them (84%) agreed on their positive impact, that of providing legal assurance about public spending and accountability control of public officers. Similarly, the only significant regressor of Q3 is the dimension IND1. The result indicates that auditees of the HCA have a positive stance for classic audits, even though their view of the Court is dominated by negative stereotypes.

The above result is verified by the plain descriptive statistics of IND1, which show that most of the sample's participants agree on the stated positive effects of classic audits ($M=3.608$).

However, the explanation power of Q3 regression is low ($R^2= 9.50\%$), which implies that the positive views on classic audits are not only explained by the pertaining strengths stated in the questionnaire (e.g., transparency, accountability, efficiency, collaboration etc), but other parameters may also be significant in explaining this outcome.

Table 4: Regression Analysis for dependent Q3 - Coefficientsa

	B	Std. Error	Beta		
3 (Constant)	2,810	,878		3,201	,002
Ind1. Positive Impacts of Classic HCA's Audits	,343	,153	,253	2,237	,027
Ind2. Negative Impacts of Classic HCA's Audits	-,085	,114	-,081	-,742	,459
Ind3. Negative Impacts of Modern HCA's Audits	,130	,106	,119	1,234	,220
Ind4. Positive Impacts of Modern HCA's Audits	-,043	,081	-,052	-,535	,594
Ind5.Communication of HCA	-,024	,127	-,019	-,189	,851

a. Dependent Variable: 3. Audits provide assurance for public spending

“Are there any significant barriers in HCA’s auditing practices for promoting changes and improvements?”

IND2 – (Q7, Q8, Q9, Q18) negative impacts of classic HCA audits

IND2 is the collective variable that represents the negative stereotypes of the auditees' perceptions of the Court. In this case, the survey's descriptive statistics of IND2 do not show any strong dimensionality ($M=3.052$), but rather significant differences in each component variable. Also, the ANOVA analysis shows that the effect of negative stereotypes is less potent for auditees that work in accounting departments and thus are familiarized with the Court's processes.

Taken into account the significant neutral percentages (between 20-30%) in all four components of IND2 (audits are symbolic, add excessive costs, fail to identify essential cases and cannot lead to improvement), it seems that the participants are not totally discouraged about the usefulness of classic audits but somewhat hesitant about them. This is an encouraging outcome but not complacent enough to compensate for the negative critique of auditees.

When exploring reasons that audits may not induce significant changes and improvements (Q15, Q16, Q17, Q19), the perceptions of participants cannot distinguish any typical underlying pattern among them, since the Cronbach alpha statistic is not sufficiently high. Therefore, these questions are regarded as independent of each other, and further research is suggested for each one of them. Nevertheless, the sample generally concurs with the proposed statements of the questionnaire, i.e., there is no authorization or economic incentives for civil servants to lead change initiatives, authorizing officers are not obliged to render an account and that the complexity of the legal framework creates improvement obstacles. For local government employees, the barrier of insufficient economic incentives is significantly higher than in other organizations.

In fact, the most significant percentage of concurring answers (72.80%) is observed in Q19, regarding the complexity of the legal framework. This result indicates that auditees perceive the compliance environment in Greece as excessively legalistic, which verifies the outcome of Kontogeorga (2017) that the case of Greece is still characterized by a lack of codification, ambiguities, continuous overlaps, and absence of a quality evaluation of the public services provided. In that sense, the scholarship agrees with the implicit fears of the participants, as the lack of clarity in the legal framework may lead to unintended non-compliance, high administrative costs, and lack of improvement initiatives.

4.3 3rd Research Objective

“Are the forthcoming changes in HCA’s auditing procedures effective? What are the expected impacts?”

IND3 – (Q21, Q22, Q23) negative impacts of modern HCA audits

IND4 – (Q25, Q26) positive impacts of modern HCA audits

In question Q4, which captures the perceptions on a more modern approach of HCA's auditing, most of the sample participants (72.00%) theoretically agree on that statement. Nevertheless, when the regression analysis of Q4 is examined, it renders that under a significant explanation power ($R^2 = 35.40\%$), the perceptions are statistically explained only by the negative perceptions on the impact of classic HCA audits IND2 ($b = -0.477$, $\text{Sig} = 0.000$). This result comes as an extension of the previous outcomes in regressions of Q1 and Q2, where the negative stereotypes on classic audits are dominant when the image of the Court is concerned. The above are indications of a substantial lack of knowledge about the new reforms of the Court because auditees base their opinions only on their existing knowledge about classic compliance audits.

For the modern HCA’s audits, the pertaining dimensions of the questionnaire are IND3 and IND4, respectively. In the regressions of Q3 and Q4, these indices do not attract statistically significant explaining power, which may suggest that auditees are not yet familiarized with the new auditing methods.

On the occasion of Q20 about the impact of the reduced pre-auditing obligations since 2011, 55.20% percent of the sample disagree that preventive audits have the same degree of compliance with suppressive audits. This seems to be a non-directional answer, which is further supported by the results of the Wilcoxon one-sample signed-rank test ($Md = 3$). The response indicates that auditees are still not sufficiently convinced about whether or not post-audits alone can guarantee the security of financial transactions.

Furthermore, when examining the descriptive statistics of the collective variable IND3, it renders that auditees believe strongly ($M_{IND3} = 3.824$) in a negative impact of the forthcoming changes and are not well prepared to operate on the basis of a more modern auditing approach

Overall, it seems that most of the sample's participants perceive that the revocation of pre-audits is a significant threat for legality and regularity compliance, which is a clear indication for the presence of mismanagement phenomena in the Greek public administration. Even though the participants theoretically seem ready to conform with a performance-based approach in external auditing (72% in Q4), in practice, the survey verifies that auditees are de facto unable to extricate themselves from the traditional legality perspective of HCA's auditing. This is a remarkable result, considering the strong influence of negative stereotypes against the image of the HCA, and could be an indication that auditees perceive HCA's classic audits as a safeguard against pressures of financial mismanagement.

A similar result is evidenced when examining the descriptive statistics of the positive dimension index IND4. The results are slightly in the opposite direction ($M=2.880 < 3$), although in a non-significant manner, according to the Wilcoxon one-sample test ($Sig > 0.05$). Nevertheless, this is in line with the rationale mentioned above, that the participants do not embrace the opinion that revocation of pre-audits could lead to positive results.

The expressed fears are statistically stronger among employees of local government and lesser for auditees in NPID, a fact that needs further exploration by researchers and regulators.

Table 5: Regression Analysis for dependent Q4 - Coefficients^a

	B	Std. Error	Beta		
4 (Constant)	3,716	,822		4,522	,000
Ind1. Positive Impacts of Classic HCA's Audits	,224	,143	,149	1,561	,121
Ind2. Negative Impacts of Classic HCA's Audits	-,477	,107	-,410	-4,461	,000
Ind3. Negative Impacts of Modern HCA's Audits	,041	,099	,034	,417	,678
Ind4. Positive Impacts of Modern HCA's Audits	-,051	,076	-,055	-,670	,504
Ind5. Communication of HCA	,205	,119	,149	1,720	,088
a. Dependent Variable: 4. Audits enhance the performance of public organizations					

4.4 4th Research Objective

“What is the effectiveness of HCA’s communication channels?”

IND5 – (Q27, Q28, Q29) Communication approach of HCA

The descriptive statistics for both the collective IND5 ($M=3.680$) and the component variables ($M_{Q27}=3.86$, $M_{Q28}=3.06$, $M_{Q29}=4.11$) show an agreement on the importance of the communication practices of the Court. Notably, the usefulness of the HCA's jurisprudence (Q27) is well acknowledged among the participants (78.00%), together with the need that auditees should participate in seminars provided by the Court's auditors (Q29), a hypothesis that actually receives the most positive views (80.80%). This is another proof that the legal framework in Greece is much complicated and needs further improvements to facilitate auditees in explaining the imprecise statutory provisions and clarify blind spaces of the law. When the adequacy of the Court's official website was explored in Q28, the majority of the participants (49.80%) voiced a neutral position, which is a sign that improvements may be necessary for this field.

Overall, it seems that a communication need is expressed by the participants, explicitly or implicitly, throughout the survey. Besides the direct results of questions Q27-Q29, the regression analysis for Q1 and Q2, explaining the image of the HCA to auditees and the society respectively, are strongly and positively related to the communication methods applied. It is the authors' estimate that a focused communication effort by the HCA could provide significant benefits for society and facilitate the promotion of improved compliance, efficient government performance, and higher quality in the use of public resources.

4.5 5th Research Objective

“Are there any differentiated patterns of response among the demographic ranks of auditees?”

The research provided evidence of differentiated responses among the different demographic groups of the sample, mainly in the following directions

- auditees from Local Government were most concerned and discouraged about the impact from the forthcoming reforms in HCA's audits.
- Better educated participants are significantly more critical about the effectiveness of HCA's audits,
- auditees in accounting departments (and thus more familiarized with the Court) are less affected by negative stereotypes and are more in favor of closer communication channels with HCA.

All the above findings, if evaluated and appropriately extended, could provide significant evidence to the understanding of the real framework of public audit practice in Greece.

5. Conclusions

This research revealed some reasons that can act as barriers to the full implementation of the planned HCA's reforms. Nevertheless, there are significant concerns about whether the individual removal of these behavioral obstacles, such as the lack of incentives and improvement initiative authorities for civil servants, or the increase of authorizing officers' political and financial accountability alone, may produce satisfactory results in promoting real changes in the public sector. Instead, it seems that a more holistic approach is needed, with the aim to change the overall organizational culture by means of targeted and cumulative reforms. Following the modern practice of SAIs, a strategic reorientation of the communication approach of the HCA could significantly facilitate the reassessment of the Court's image, mitigating the negative stereotypes and promoting a more positive view that will enable public administration to participate in the reform effort of the HCA actively. It is also necessary that the Court develops efficient communication channels with the Public Opinion, which does not seem to be well informed of the role and the mission of the Court.

It seems that performance evaluation is the next big thing in public auditing. However, can there be better performance without legality and regularity compliance? The International Organization of SAIs admits that both audit types are fundamental and complement to each other. Accordingly, the HCA tries to promote its competences for a more performance-oriented function, following the international standards and useful practice guides of SAIs but simultaneously adjusting to its unique characteristics and without neglecting its judicial structure. As the results of this research show, this is exactly what the participants expect from the Court; the evolution of HCA into a modern and accessible institution that promotes organizational performance and simultaneously a judiciary that preserves the traditional legality and regularity compliance audits, especially the pre-audits, as the guardian of public revenue against financial mismanagement.

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