

CURRENT CONCEPTS ON SELECTION TECHNIQUES IN FINANCIAL AUDITING

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Abstract

The financial auditor's work evolves around the issue of an independent, professional and objective opinion on the compliance of the client's financial statements with the national accounting rules and principles. At the same time, the auditor will have to express an opinion on the ability of the company to continue its activity. An ideal situation would involve auditing all the components of the yearly accounts, but this would take time, effort and a very high cost. Fortunately, the audit team has some very useful tools for acquiring audit evidence in a fast and conclusive way - selection techniques. These techniques may be used in different phases of the audit and auditors have been using them for a long time, in fact no audit program would function without these techniques. They have become quite common as the auditors make important judgments, such as determining what type of technique to apply, whether to use statistical or nonstatistical techniques, appropriate inputs to determine sample size, and evaluation of results, particularly when errors are detected. This paper aims to theoretically present the main selection techniques, indicating how, why and when to use them. There are six selection techniques and we deal with the most frequent four of them. Our purpose is to present the characteristics and set the limits of these techniques, emphasizing sampling as the most common selection technique currently in use. A commonly held misconception about statistical sampling, for example, is that it removes the need for the use of the professional judgement. While it is true that statistical sampling uses statistical methods to determine the sample size and to select and evaluate audit samples, it is the responsibility of the auditor to consider and specify in advance factors such as materiality, the expected error rate or amount, the risk of over-reliance or the risk of incorrect acceptance, audit risk, inherent risk, control risk, standard deviation and population size, before the sample size can be determined. Selection techniques allow an auditor's judgement to be concentrated on those areas of the audit where it is most needed. It allows the quantification of key factors and the risk of errors. This is not to suggest that selection techniques remove the need for professional judgement, but rather that they allow elements of the evaluation process to be quantified, measured and controlled.

Key words: accounts; audit; sampling; selection technique; procedures.

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Introduction

In the beginnings of auditing, it was not unusual for the independent auditor to examine all records and documents of the audited entity. In time, economic development of companies in terms of complexity and scope has caused exhaustive examination procedure of all company records to turn into an inefficient economic procedure. In order to express a fair opinion on the financial statements, the auditors found it necessary to assess only parts of accounting records and transactions. Therefore, the assurance provided by the auditor in his or her opinion has become a reasonable one, not an absolute one. The significance of the items collected by the auditor depends on their origin and nature, on the techniques and methods necessary to ensure credibility, based on the quantity and quality of acquired information.

The techniques and methods used for gathering audit evidence generally intertwine in multiple forms, being used either individually or within a technique, as a procedure that is

part of it. Thus auditors developed the use of certain techniques for selecting the information in the documents provided by the entity, such as: sampling technique, physical observation technique, interview technique, analytical examination technique, system and significant accounts testing technique, as well as technical examination of financial statements technique. The most commonly used are: sampling, physical observation, interview and analytical examination, which will be analyzed in this article.

1. Sampling Technique

The principles and importance of sampling in financial auditing arise from the International Standard on Auditing 530 *"Audit Sampling and Other Selective Testing Procedures"*, approved by the International Federation of Accountants (IFAC) in 1999. The beginnings of using sampling in financial auditing date back to 1962, when the Statistical Sampling Committee of the American Institute of Certified Public Accountants (AICPA) issued a special report entitled *"Statistical Sampling and the Independent Auditor"*, which laid the foundations for the use of the statistical sampling method in accordance with generally accepted auditing standards. Subsequently, AICPA issued in 1981 the professional standard "Audit Sampling", containing guidelines for both sampling methods - statistical and non-statistical.

In financial auditing, sampling is a selection method applied to an account balance or to a class of transactions in order to gather audit evidence which is sufficient, relevant and consistent with the objectives of the audit. In this process the auditor should examine a sample which is representative for different types of accounts and review the client's past events. Both auditors and researchers are faced with a critical situation when they have to decide how to select the sample and what size it should have.

Sampling, as selection technique, involves the application of audit procedures only to a part of the population to be audited - known as "sample" - in order to obtain reliable audit evidence, able to characterize the whole population. When using the sampling selection technique, the auditor should make sure that the selected sample is representative - that is, a sample composed of units holding characteristics as similar as possible to the whole population. Only in this way are the sampling results valid for the entire population being tested. Otherwise, the findings of the sampling test can only be applied to that sample.

Sampling is used in order to check or clarify the identified error. The main purpose is to corroborate or to measure the degree of risk detected after relevant analysis. Since the auditor has neither the time nor the means to rebuild information exhaustively, sampling can provide an effective response to a valorization need. Obviously, sampling contains a certain margin of error, due to the simple fact that it is based on extrapolation or estimation. The auditor faces the difficulty of assessing the importance of this estimate to reach an acceptable margin of error, for that specific set objective. By judicious selection of the sample units, they will reach a relevant result.

The science of sampling design involves: analyzing existing resources, outside restrictions, mathematical and statistical tools available, examining the knowledge gained on the distinctive features of the sampled population and, not least, correlating all these data to obtain an optimal design, suitable to the audit objectives. The essential criteria to be applied when selecting a particular sampling design is that the sample should be designed as such to provide the required information with sufficient accuracy, at minimal costs.

The effectiveness of applying the sampling technique depends on several factors. First of all, it is influenced by the precise definition of audit objectives. The auditor must establish as clearly as possible what he or she intends to demonstrate, in order to define the characteristics that will be considered further on as an error or anomaly. Secondly, for the proper use of the sampling technique, it is essential for the auditor to choose the correct nature of the population, taking into account the specific activity of the audited entity.

The population is the entire set of data, full and accurate, from which the auditor intends to draw a sample, in order to reach a reasonable conclusion. A sampling unit may consist in a simple accounting document, such as an invoice or a receipt record, or even a line item. The auditor will define the sampling unit based on its compliance with the objectives of the audit tests. Sample size is influenced by the level of sampling risk that the auditor is willing to accept: the more willing to accept a lower risk level, the larger the selected sample.

When selecting the population to be subjected to sampling, the auditor should ensure that the error rate in that population does not exceed the maximum acceptable rate (materiality). For example, in the audit of a production entity, so as to check if all deliveries of finished products have led to the accounting recording of issued invoices, that specific population should be the delivery records, not the invoices.

There are two general approaches to audit sampling: statistical and non-statistical, and both ask the auditor to use professional judgement to correlate audit evidence resulting from sampling with other audit evidence in order to formulate an opinion. Choosing the statistical or the non-statistical approach does not directly affect the auditor's decision on audit procedures to be applied, the relevance of the acquired audit evidence compared to the individual elements in the sample or the measures to be taken if significant errors are identified.

Statistical sampling is a selection method based on the probability theory, whereby each unit of the total population has an equal chance of being included in the sample. The results of this method can be statistically evaluated, the auditor can determine whether the acquired evidence is sufficient and sampling risk can be quantified.

Instead, in non-statistical sampling, the auditor uses professional judgement to select sample units. Although sampling units are chosen so as to have characteristics that are representative for the whole population, the results of the sampling test cannot be extrapolated to the entire population, they apply only to the tested units.

The difference between the two types of sampling is that the sampling risk of a statistical plan can be measured and controlled, while a non-statistical plan, even if perfectly planned, does not provide an appropriate frame for the measurement of sampling risk.

The main similarity between the two types of sampling is that both approaches require the exercise of the auditor's judgement during planning, implementation and evaluation of the sampling plan. In other words, even if statistical methods are used, this does not eliminate the need to exercise judgement.

Moreover, the actual audit procedures to be implemented in the sampling test will be the same, regardless of whether they use a statistical or a non-statistical approach. Using a statistical plan does not mean that the auditor may alter planned procedures for collecting audit evidence to reach a final conclusion.

It is necessary for the auditor to assess the individual and situational costs and benefits related to each sampling before reaching a conclusion. Therefore, since both statistical and non-statistical sampling can provide sufficient audit evidence, the auditor chooses one of them after assessing their cost and effectiveness in the given circumstances.

In some cases, it is recommended to use statistical sampling rather than sampling just by the exercise of judgement. Before deciding which one to use, the auditor must determine auditing objectives, identify the characteristics of the examined population and assess the degree of acceptable risk. After determining these coordinates, it would be wise to use statistical sampling as long as the auditor is provided with a well-defined population and the access to the necessary documents is not restricted or hampered.

2. Physical Observation Technique

Physical observation means the inspection or the inventory of a set of tangible, material assets by the auditor. This type of technique is most often associated with stocks and funds, but also applies in the case of verification of securities, receivables and tangible assets. The

difference between physical examination of assets, for example, of readily marketable securities and cash, and the examination of documentary supports such as checks paid and sales documents, is important so as to respond to the various auditing objectives.

Physical observation, as a direct way of checking whether an asset is real, is considered to be one of the most reliable and useful audit selection techniques. In general, physical observation is an objective way of finding both the quantity and the characteristics of the asset. In some cases, it is also a useful method to assess the condition or quality of the asset.

For example, physical observation undertaken by the auditor on controlling inventories aim to ensure that:

- the company has provided appropriate means to allow reliable reviewing of assets; this phase is meant to study the inventory procedures and it takes place before the actual inventory;
- these tools are implemented satisfactorily; this phase consists in checking that those charged with inventorying apply the procedures correctly and takes place during the inventory;
- the inventory was properly performed; this phase consists in checking if those quantities are those used for assessing the amount of stocks and ranks, so it takes place after the inventory itself.

As a technique of collecting evidence, physical observation is usually used by the auditor to understand better how a certain procedure of internal audit or some type of control of the procedure is organized and performed. For example:

- the auditor can examine how the procedure for the reception of goods is performed;
- the auditor can search for proofs that the measures taken to physically protect company assets are effective or that cash transportation from the bank to the company and back is executed according to the rules of cash operations; or that the company provisions on cancellation of treasury documents have been completed;

Physical observation as part of organizing, performing and assessing the inventory result is the only technique that can reassure the auditor that inventory procedures were followed.

3. Interview Technique

The interview technique, applied in the financial audit work, is defined as a method of investigation aimed at learning about human behavior when they adopt and implement internal audit procedures or control components of accounts. The interview technique involves a dialogue between the interviewer and the interrogated subject (subjects) called interviewee.

Interviews are a key part of the audit process. They are an important way of obtaining and confirming information and facts about the way systems and controls are being operated. At the same time they represent an opportunity to create and maintain good relations between the audit department and its clients, and to impress the client with the professionalism of internal audit.

Being a delicate and demanding method, it requires a personal improvement of the people who conduct the interviews, which leads them to:

- a better understanding of what is going on in their mind and in the others' minds during the interview;
- a better understanding of the interviewee's position in his or her psychological context;
- a better understanding of the others' way to express;
- a better positioning of the interview in the broader context of the financial audit, in which the interview itself is but a small part;
- a better appreciation of how the procedures were understood and applied.

In addition, the interviewer is required to be skilled, trained for this purpose and having certain qualities: resourcefulness, honesty, accuracy in taking down the answers, adaptability, being neither aggressive nor too sociable etc.

The interview usually focuses on a certain theme and a purpose, both previously established, in a program specifically developed with the help of certain rules adapted to the investigated field, known as "orientation guides" and "questionnaires". In Annex no.4 of Financial Auditing Rules there are such guides for auditors to create the necessary questionnaires.

There are several kinds of interviews, of which:

- *free interview*, also called "deep", as it is undirected, non-standardized, informal, extensive, consisting in recording the interviewee or interviewees by using a worksheet, its role being to make everyone speak freely and broadly, without interruption to influence them in some way in exposing their ideas; though one may not acquire quantitative information, this process enables the interviewer to pick up ideas as sources for future interviews;
- *questionnaire interview*, also called "standardized", which is systematic, formal, intensive, directed. The interviewer usually deals with only one interviewee, on a series of questions in a certain order and form, from which the interviewer does not deviate.

Taking an interview requires great mental effort. It is a laborious work and should not be done more than two consecutive hours. A questionnaire interview must be carefully prepared and with more caution than seems necessary at first.

4. Analytical Examination Technique

This technique is a global one, designed to find only significant errors or omissions, without bringing, by itself, evidence of detected errors or omissions, as they will be later determined by other techniques (sampling, tests) that allow precise quantification.

This technique results from paragraph 63 of the Audit Regulations No.1 / 1995, relying on the information system, on documents created and circulating in the company, and it is of great importance for the efficiency of financial audit. The auditor will make a difference between documents that define a policy or guidance and those which describe or imply a procedure or an operation. Although the former clarify the latter, they are not sufficient for the auditor to know all the facts.

Documents, as information support, even if they do not fully express the facts, but their existence and content express, on the one hand the existing situation and, on the other hand, the organization of internal auditing. Often, documents no longer express reality, as the described or implied operations and procedures have evolved (for example, because of organizational changes or events after the closure of the financial year) without updating the document or accounting records.

Analytical examination consists of a set of financial audit procedures, represented by:

- comparing data from the annual accounts with previous, later and forecast data of the company or with data from similar companies and establishing relationships between them;
- analyzing fluctuations and trends;
- studying and analyzing unusual items resulting from these comparisons.

Trust limits that the auditor may grant upon application of the analytical examination technique also depend on the following factors:

- objectives of the applied procedure;
- the relative importance and nature of the evidence against the annual accounts as a whole;
- other auditing procedures applied by the auditor which have the same objectives.

In fact, the analytical examination is performed according to the auditor's judgment. If the approach is based on risks, the more important they are, the less probative value must be

given to analytical examination results, and apply detailed tests (of compliance and permanency) on the internal audit and account control systems.

A methodological aspect of the analytical examination technique is the performance of arithmetic calculations, analysis, estimates and confrontations between the information and documents set:

- upstream of the company information system (incoming documents which underlie accounting records or serve to control operations accounted for - direct confirmations, for example);
- downstream of the company information system (issued documents: copies of invoices, delivery notes, balance sheets, assets comparative statements etc.)

The procedures of the analytical examination technique have the advantage of being used by auditors in various stages of the financial auditing, such as:

- in the stage of audit acceptance and mission planning, the analytical examination can be used for a better knowledge of the company and to identify potential risk areas, thus contributing to a better mission planning;
- during the stage of company management surveillance (assessment of internal audit and accounts control), the auditor will use this technique to collect evidence regarding credibility or reasonableness of internal audit systems, of individual accounts or groups of accounts;
- during the stage of examination of the annual accounts, the auditor may use the analytical examination technique to collect evidence so as to substantiate his belief that regularity and honesty conditions are fulfilled and that they give a true and fair view of the assets, liabilities, results and financial position of the company, at the end of the year.

When, on applying analytical examination procedures, the auditors find fluctuations and unusual items, which determine relationships that are unusual or inconsistent with the information obtained from other sources, it is necessary to apply further procedures to obtain the necessary explanations.

These procedures can take place in two steps:

- through the interview technique, aiming to get from the person who manages the assets the appropriate answers and adequate assessment - for example, by comparing them with reliable information and other elements collected during the auditing process;
- by using other auditing procedures to reach a satisfactory conclusion, whenever the person who manages the assets cannot provide explanations or if the explanations are not considered adequate by the auditor.

When using this technique, the auditor may sometimes reach conclusions without a quantified satisfactory answer. In this situation it is recommended to use the additional technique of testing the revealed significant element in order to obtain the necessary quantified data.

In conclusion, the analytical examination technique proves to be of great importance by the high degree of professional decision that it involves. For this reason, the main procedures of this technique should be handled by the head of the auditing team, who sees the big picture and has the required competence.

Conclusions

Audit reports should provide an assurance on the system under review as well as recommendations for improvement regarding the soundness and application of accounting, financial and operational controls of an organisation. The evidence has to be sufficient, relevant and reliable and for most audits the required level of assurance is obtained from a number of audit procedures. This article is concerned primarily with the way in which selection techniques help the auditor acquire sufficiency of evidence.

Sampling is the most common of all the selection techniques, but the interview is equally used in all auditing processes. Without physical observation the auditor would acquire only partial information on the audited company, while analytical examinations are performed on most account balances in order to get conclusive evidence. Errors and omissions are detected in a faster and more efficient way, while audit risk is under control whenever the selection techniques are used along with the auditor's professional judgement.

Without selection techniques, the audit team would waste a lot of time and effort analyzing huge sets of data trying to find relevant elements and cast aside the irrelevant ones. By using appropriate selection techniques, adapted to each audit phase, the financial auditor is sure to obtain a relevant opinion on the client's financial statements.

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References

- Arens, A. and Loebbecke, J.K. (2003) *Auditing: an Integrated Approach*, 8th Edition, Chisinau: Arc
- Boulescu, M. (2006) *Analytical audit procedures*, "Finante, banci, asigurari" journal, no.11
- Pendegraft, N., Stone, R.W. and Kraut, M. (2014) *Conceptually modelling the trade-offs between continuous and traditional auditing*, International Journal of Auditing Technology, 2014 vol.2 no.2
- Gros, M. and Worret, D., (2014) *The challenge of measuring audit quality: some evidence*, International Journal of Critical Accounting 2014 - Vol. 6, No.4
- Boulescu, M., Ghiță, M. and Mareș, V. (2001) *Audit Fundamentals*, Bucharest: Editura Didactică și Pedagogică
- Dănescu, T. (2007) *Financial Auditing: convergences between theory and practice*, Bucharest: Irecson
- Danescu, T. (2007) *Procedures and Techniques of Financial Auditing*, Bucharest: Irecson
- Dobre, F., Turlea, E. (2013) *Financial Auditing, a tridimensional approach. Genesis, present and future*, Doctorate Paper, Bucharest: ASE
- Guy, D.M, Carmichael, D.R., Whittington, R. (2002) *Auditing sampling : an introduction*, 5th Edition, New York: John Wiley & Sons
- Gheorghe, M. (2004) *Theoretical aspects and practical dimensions of sampling in auditing*, Accounting, expertise and business auditing, no.12
- Ghita, M., Mares, V. (2003) *Sampling in auditing*, Economic and financial control, vol.7, no.2
- Greceanu, D. (2006) *The technique of audit sampling*, Company management and accounting, vol.9, no.3
- Horomnea, E. (2010) *Financial Auditing. Concepts.Standards.Regulations*, Iași: Tipo Moldova
- Lohr, S.L. (1999) *Sampling : design and analysis*, Pacific Grove: Duxbury Press
- Ryan, B., Scapens, R.W., and Theobald, M. (2002) *Research Method & Methodology in Finance &Accounting, Edition II*, London: Thomson
- Stoian, A., Turlea, E. (2001) *Financial Auditing*, Bucharest: Editura Economică