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THE APPLICATION OF THE SAMPLE METHOD IN THE AUDIT PROCESS BY THE AUDIT COMPANIES IN THE REPUBLIC OF NORTH MACEDONIA

Abstract:

The audit process is an activity carried out by certified auditors employed in audit companies in order to prepare an audit report and an opinion on the truthfulness and accuracy of the information presented in the financial statements, on the basis of which interested stakeholders make business decisions. The audit raises the credibility of the financial statements. The audit involves the application of a number of audit procedures and tests in order to provide sufficient and adequate audit evidence which is a basis for the audit opinion.

As a tool for implementing a fast, efficient, effective and economical audit, the sample method in audit is applied. The choice of a representative sample of items that will represent the overall population of items subject to audit requires the knowledge and skills of the auditor who is conducting the audit.

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How much, when and why the auditors apply the sample method in the audit, is subject of an empirical survey conducted by the audit firms in the Republic of North Macedonia, and the results of the research and the conclusions are presented in this paper.

Key words: audi; information; financial reports; population; sample method

JEL classification: M42

Introduction

In modern conditions of management, with the process of globalization and internationalization on the market, the owners of capital make decisions on where to invest their free resources. In order not to make and adopt bad business decisions, they need realistic and objective information at what special meaning have the accounting financial information which they receive from the financial reports of the business entities. One of the instruments for verifying the credibility and objectivity of the data on the operations and performance of the business entity is the audit of the financial statements of the business entity. The role of the audit is to create a real and objective basis for successful business management and protect the interests of the equity holders.

The auditor, with the audit report, is a link between the users of the information presented in the financial statements and the business entity whose financial statements are subject to audit. The management of the business entity prepares the financial statements and is responsible for their accuracy. The auditor audits those financial statements and is responsible for giving an opinion on the accuracy and reliability of the information contained in the financial statements. The audit increases the credibility of the financial statements. Benefits from this have the business entities and the users of the information presented in the financial statements.

A revised financial statements help their customers make business decisions that are based on relevant information, and increase the ratings of the business entities and facilitate their access to the money and capital market, which in turn leads to an increase in the total economic efficiency.

When initiating the audit process, the auditor is most interested in how much and how can they rely on the effectiveness of the internal controls,

whether they have weaknesses in their functioning. By determining these results, the auditor saves time and defines the directions for further research, how deeply he will analyze. From this aspect, the auditors prefer the tests of internal controls, that is, they usually apply them, but they did not exclude other types of tests, whose application is limited precisely from the results of these tests.

Considering the size of the business entities in which the audit is carried out, the large volume of information and transactions being audited, the need to use the sample method as a means of obtaining meeting and appropriate audit evidence is imposed. The sample method is applied as follows: The auditor by means of selection selects samples from the researched population, which represent less than one hundred percent of the total population, and through the analysis of the samples themselves makes conclusion, which will apply to the whole population surveyed.

It is very important that the items that the auditor selects to constitute a sample that will be representative for the whole population. If each item of the surveyed population has the same chance of being selected, then the sample will be representative. If, however, samples are taken only from a part of the population or are only a few consecutive items, then the sample would be less representative. For these reasons, several sampling methods have been developed that are elaborated in detail in the paper.

Applying the sample method brings its benefits, such as saving time, effort and resources, but also a certain level of risk. The risk of applying the sample method is inversely proportional to the size of the sample. The auditor determines the acceptable level of risk from the application of the sample by analyzing the evidence collected from the test.

1. APPROACHES TO SELECTING A SAMPLE METHOD

The auditor chooses whether to use a non-statistical or statistical approach when collecting the sample. When applying the non-statistical method of sample selection, especially when the choice of units is not based on the random system, when selecting the sample, it should be ensured that the risk does not omit any part of the population. A statistical method implies the implementation of random selection of the sample units so that each unit has the same opportunity to be selected. These may be physical items or monetary units. One of the most used statistical methods is the method according to the monetary unit, which valorises the value of the selected items. Random

numerical tables, computer programs, systematic selection and random selection are used. While the non-statistical sample method is based on the professional judgment of the auditor, the choice of an items which would represent a representative sample. Here the auditor chooses items that are typical for the audit characteristics, in order for the sample to be representative of the overall population researched.

In any case, the samples to be selected by the statistical or non-statistical method should be appropriate. Both approaches have their own advantages and disadvantages. The main advantage of the statistical sample is that it creates an opportunity to determine the minimum size of the sample, which is required to meet the objectives of the audit tests, or the possibility of quantitative expression of the results. While the disadvantages of the statistical sample is considered that random sample techniques must be used, which may be longer lasting than non-systematic applicable techniques in a non-statistic sample. The positive side of the non-statistical methods is that they represent a more economical solution from the statistical ones, when the analysis is taken into account. But, on the other hand, as a disadvantage of these methods, their lower objectivity is emphasized, unlike in statistical methods.

2. THE APPLICATION OF THE SAMPLE METHOD IN THE AUDIT PROCESS BY THE AUDIT COMPANIES IN THE REPUBLIC OF NORTH MACEDONIA

The application of this technique when conducting the audit processes by the auditors is common. This conclusion is supported by an empirical research on the application of the method, for example by the auditors in the Republic of North Macedonia. The empirical research was done with the help of a survey as the main scientific-research method. A sample of 33 respondents was included. The sample selection framework is composed of all audit companies in the Republic of North Macedonia. The wide-ranging sample selection framework was used to provide responses from large and small audit firms.

For this purpose, a questionnaire was prepared on the application of the sample method, which was submitted to the registered audit companies in the Republic of North Macedonia. Their task was, based on their own past work experience and personal judgment as professional auditors to respond to the given questions in the questionnaire. This topic is quite extensive and complex, both in the direction of defining and implementing the guidelines for

selecting representative samples, conditioned by the size and characteristics of the surveyed population and the patterns of tests, as well as the manner of measuring and interpreting the results obtained, with the aim the auditor to obtain a solid basis for forming his own opinion.

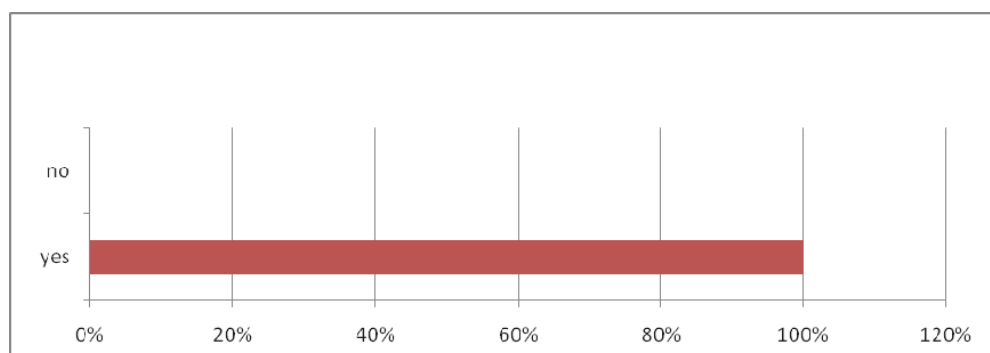
The questionnaire contains specific questions, in order to initially receive a response if and in which cases the auditors use the sample method. The aim is through the questions to show the most common models of sampling and techniques that favour and use the Macedonian auditors, as well as the most common threats of omissions and mistakes. There is room for expressing personal opinion about the advantages offered by this method as well as the safety rate that gives the audit opinion on the accuracy of the results obtained from the evidence on a sample basis.

The questionnaire was conducted anonymously with eleven questions, ten of which are of closed type by choosing the correct answer from the offered ones, and one issue is open by giving an individual opinion. The survey questionnaire was prepared using the Survey Monkey application, and with the help of this, the questionnaire was sent via e-mail to all registered audit companies and certified auditors-sole proprietors in the Republic of North Macedonia. Electronic mailings are provided through the register of certified audit companies and certified auditors-traders individuals, published on the website of the Institute of Certified Auditors in the Republic of North Macedonia (iorm.org.mk). The questionnaire was submitted to a total of 26 audit companies and 7 certified auditors-sole proprietors. A total of 18 respondents answered the questionnaire, or almost 55% of the surveyed population. According to this, the survey is considered successful, and it can be concluded that the results obtained are relevant for the entire researched population, in this case for all certified auditors on the territory of the Republic of North Macedonia.

In continuation, the presentation and interpretation of the obtained results follows on the basis of the answers received from the questionnaire on the topic: Application of a sample method by the audit companies, registered on the territory of the Republic of North Macedonia.

Question no. 1. Does your company often use the sampling method when conducting an audit process (taking a representative sample of the entire population)?

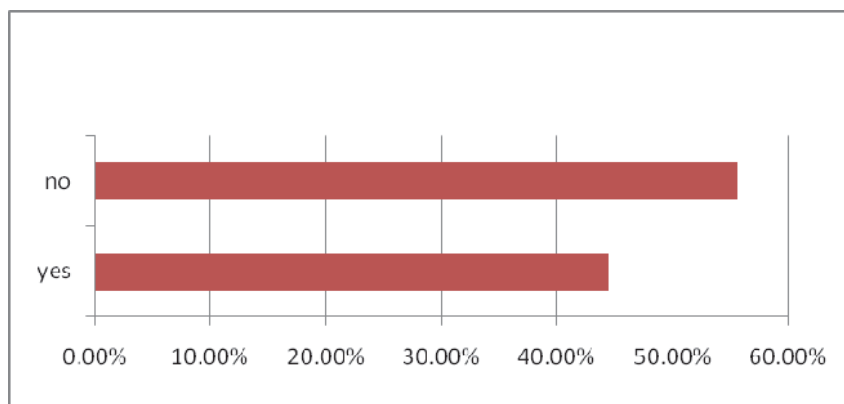
ANSWER CHOICES	RESPONSES	
Yes	100.00%	18
No	0.00%	0
TOTAL		18



Out of the total of the 18 answers we have maximum response, 100% with yes, the auditors always apply the sample method. From these measured results we can conclude that the sample method is one of the most commonly applied tools by auditors. Below, we will be able to determine the reasons why this is so. Why do the auditors primarily decide to test a representative sample, rather than testing the surveyed population in its entirety?

Question no. 2. Is the sampling method mandatory applied for every audit engagement?

ANSWER CHOICE	RESPONSES	
Yes	44,44%	8
No	55,56%	10
TOTAL		18

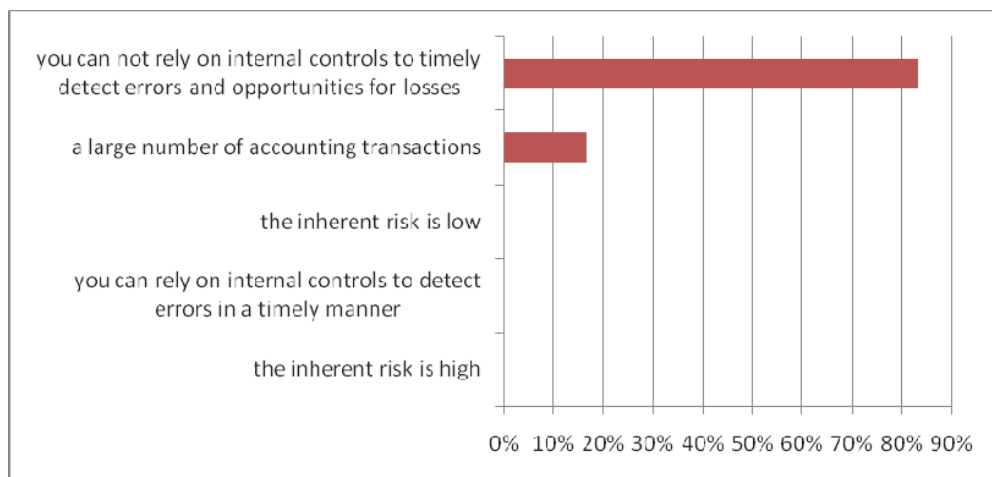


From the answers to this question, we can conclude that there is no strictly defined and set rule for compulsory application of the sample method in the audit process. The application of the sample method depends on the subjective judgment of the auditor. The auditor decides which alternative will be used. Whether he will test the entire population or a particular representative sample.

Question no. 3. In which cases do you use the sample method most commonly?

ANSWER CHOICES	RESPONSES	
You cannot rely on internal controls to timely detect errors and opportunities for losses	83,33%	15
A large number of accounting transactions	16,67%	3
The inherent risk is low	0,00%	0
You can rely on internal controls to detect errors in a timely manner	0,00%	0
The inherent risk is high	0,00%	0
TOTAL		18

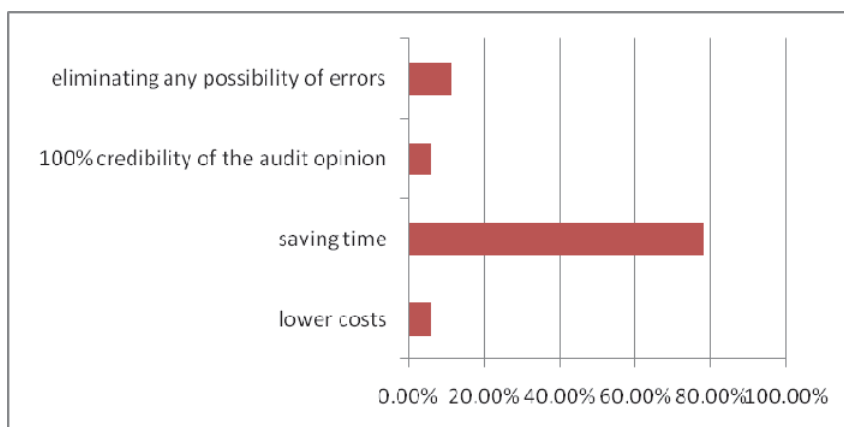
From the tabular and graphic display of the answers to question no.3, you can see the most common situations that lead to the application of the sample method. Out of the 18 responses received, a total of 3, or 16.67% of the respondents, consider the volume of accounting transactions and 15, ie 83.33% think that it is the inability to rely on internal controls to detect errors and opportunities for timely loss. For this reasons, they are carefully examined and



checked from multiple aspects, using the sample method and various types of tests, because their 100% testing would be a long-term process.

Question no.4. What benefits you have from applying the sample method?

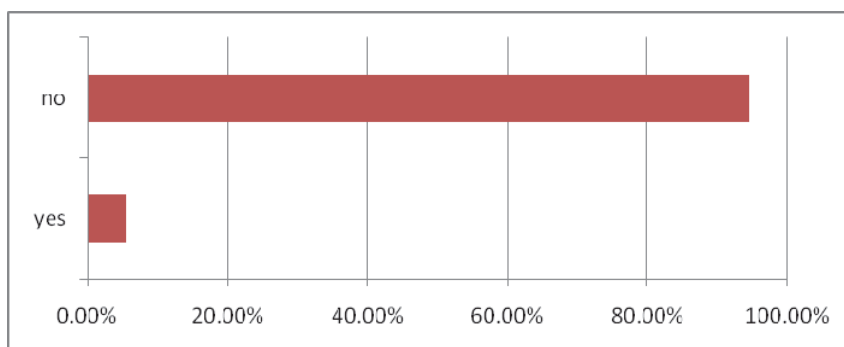
ANSWER CHOICES	RESPONSES	
Eliminating any possibility of errors	11,11%	2
100% credibility of the audit opinion	5,56%	1
Saving time	77,78%	14
Lower costs	5,56%	1
TOTAL		18



The auditors driven by the need and the possibility of time savings use the sample method as a tool for fast, efficient, effective and economical audit. Again we return to the fact that the auditors at each review process are faced with deadlines, and thus have extensive populations for research and application of this tool allows them to obtain relevant evidence for a shorter period of time, which then represent a solid foundation , to which the auditors will give their audit opinion.

Question no. 5. Does the application of the sample method cause high costs for the audit firm i.e. is it an expensive method?

ANSWER CHOICES	RESPONSES	
Yes	5,56%	1
No	94,44%	17
TOTAL		18

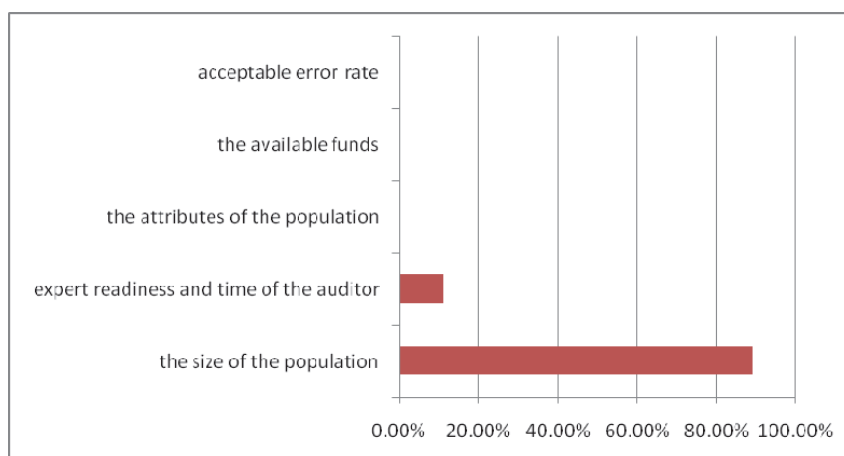


The majority of respondents consider that the sample method is not an expensive method, i.e. it does not cause high costs. A small percentage of 5.56%, or 1 Audit Company, considers that the sample method is an expensive method, i.e. the selection of representative samples causes high costs. This response may be the result of a particular negative experience that the audit company has, which we may consider to be an exception.

An important role in taking key samples from a research population is the knowledge, skills and experience of the auditor. If the auditor is guided by information about the characteristics of the researched population knows exactly how to select the sample, what kinds of tests to test in order to obtain sufficient and adequate audit evidence, will save time and resources. If the auditor does not have sufficient information, knowledge and skills, it may be necessary to repeat or further increase the selected sample, which will also increase costs.

Question no. 6. which factors (information) most affect the size of the sample when it is created according to you?

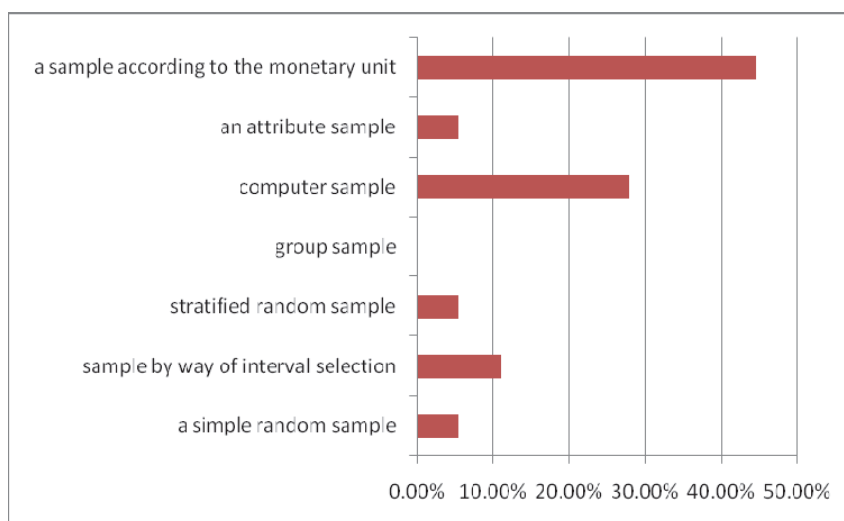
ANSWER CHOICES	RESPONSES	
The acceptable error rate	0,00%	0
The available funds	0,00%	0
The attributes of the population	0,00%	0
expert readiness and time of the auditor	11,11%	2
The size of the population	88,89%	16
TOTAL		18



Leading factor that has a decisive influence on the size of the sample is the size of the population. The bigger and the more complex the population, the greater the sample and the more complex it is. But still this influence goes to a certain extent. If the population increases, this implies an increase in the sample, but it will not cause significant changes in the test results obtained. Expertise held by the auditor, his knowledge, abilities and time are also important for the proper definition of the size of the sample. Often, the lack of readiness and dedication of the auditor can lead to the incorrect definition of a representative sample, and this leads to additional losses from fraudulent interpretations.

Question no. 7. Which method of sampling of the researched population you are using most commonly when conducting the audit?

ANSWER CHOICES	RESPONSES	
A sample according to the monetary unit	44,44%	8
An attribute sample	5,56%	1
Computer sample	27,78%	5
Group sample	0,00%	0
Stratified random sample	5,56%	1
Sample by way of interval selection	11,11%	2
A simple random sample	5,56%	1
TOTAL		18



Apart from the need to make a decision on defining the size of the selected sample, the auditor also faces the choice of a way to select the appropriate sample of the population being subject to research. The result of the obtained percentage results is that: in particular, one sample method cannot be separated as compulsory in practice, i.e. all methods of sampling are applied precisely because of the fact that different populations are studied and their choice is based on the personal judgment of the auditors. The group sample

is characteristic for audit in state bodies and institutions, whereas here audit firms that conduct commercial audit are mainly answered here. Therefore, this method of sampling is not often applied to these audit companies, which does not imply that there is no application at all.

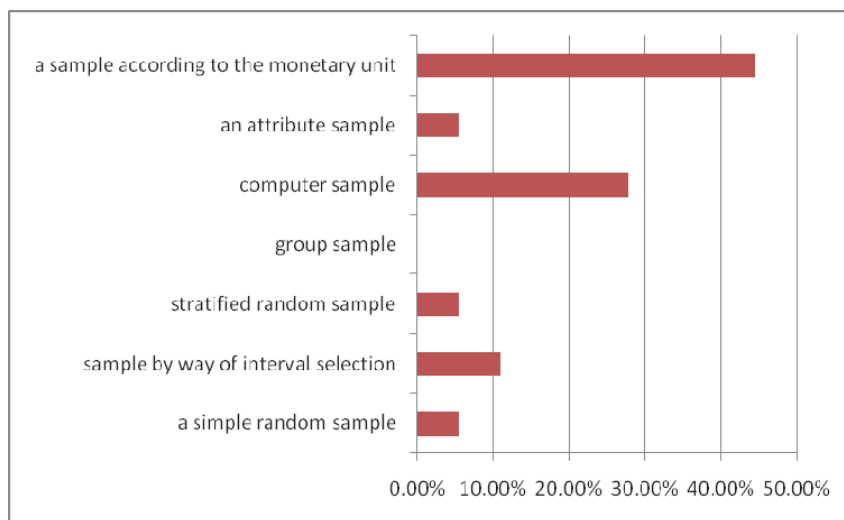
Question no.8. Which method (s) of sampling do you favour and why?

This question is of an open type where each of the respondents should declare which sample method favours and why?

From the answers received, we can conclude that the monetary unit sample method (MUS) is most commonly used. Out of the 18 respondents, a total of 15 respondents answered this question, of which 12 respondents favour the sample method according to the monetary unit, also known as the method of cumulative monetary value. In response, we have the statistical method, that is, the random statistical sample method. We can conclude that auditors mainly rely on statistical sampling methods. The monetary unit's sample method is favoured by the auditors it is also a statistical method. By applying this method valorisation of the units tested is carried out using appropriate selection and calculation tables, excluding the possibility of subjectivity. Most often the results obtained from this method are characteristic for the whole population, there are few opportunities for mistakes and errors.

Question no. 9. Which tests are you most commonly using when examining a representative sample?

ANSWER CHOICES	RESPONSES	
Tests of weaknesses	5,56%	1
Tests of internal controls	55,56%	10
Substantive tests	11,11%	2
Compliance tests	27,78%	5
TOTAL		18



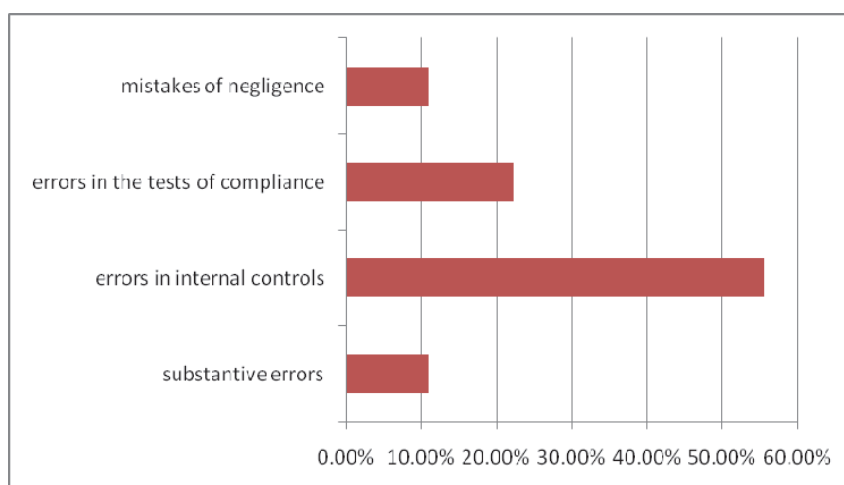
What type of tests will apply depends on the characteristics of the subject matter of the audit as well as the goals that the auditor wants to achieve. Often, in order to obtain better and accurate results, auditors are able to expand or combine multiple types of tests, depending on and in which phase of the overall survey they apply the specific test. Guided by the limited factors as resources and time, almost always, the auditors are interested in whether they can rely on the effectiveness of internal controls. The auditors initially determine whether there are internal controls at all and how they function.

In the order of the votes received, the sequence of application of the above mentioned tests is also shown. Initially, the auditors determine whether there are internal controls (tests of internal controls), then they are introduced to their functions and determine whether they function according to the prescribed method (compliance tests). These tests include observation, staff inquiries, etc. Through the collected information from these tests, the level of control risk is determined, which is of great help during the further course of the audit.

If certain weaknesses and functional errors are identified, substantive tests are used to pinpoint and accurately measure the scope of errors, and finally if it is determined that the error rate is large and significant, the auditor decides to apply weakness tests. If, with the initial internal control tests, it is established that the auditor can rely on their effectiveness, he stops with the testing, and does not carry out further tests.

Question no.10. Which types of errors can most often occur when testing the selected samples?

ANSWER CHOICES	RESPONSES	
Mistakes of negligence	11,11%	2
Errors in the tests of compliance	22,22%	4
Errors in internal controls	55,56%	10
Substantive errors	11,11%	2
TOTAL		18

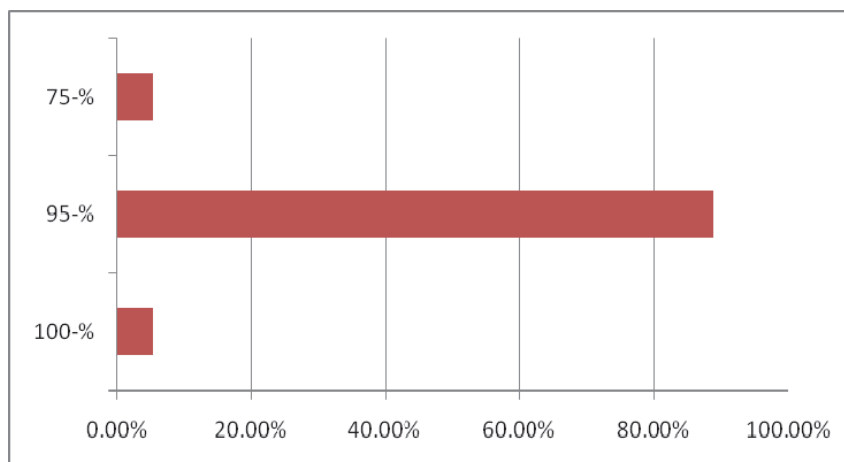


The answers given to this question are in the same order as with the question of which tests are most often applied. It is understandable that errors in the internal controls are the most frequent since these tests are basic and commonly used in the analysis by the auditor.

Compliance errors are determined by means of compliance tests, and they essentially represent certain vulnerabilities and weaknesses of the controls, or the persons implementing them. Here, most often, the auditor takes corrective measures to overcome them and create them. A more difficult type of error is the substantive errors. They point to significant failures, to which the auditor pays great attention, as they can initiate deliberate frauds. Errors of negligence are mistakes made by third parties from inattention.

Question no. 11. How many percent confidence should the audit opinion give which is built on the basis of the conclusions of the sample testing?

ANSWER CHOICES	RESPONSES	
75%	5,56%	1
95%	88,89%	16
100%	5,56%	1
TOTAL		18



It is a fact that the audit is not an exact science that can fully guarantee the truthfulness and objectivity of the information contained in the financial statements. The audit carries out professional judgment and verification of the reliability of the financial statements, but does not offer a guarantee of their absolute accuracy. Accordingly, the auditors have agreed that their audit opinions offer 95% certainty.

Conclusion:

A summary is that the sampling method is frequently used tool in the audit process, but it is not mandatory in any process. The auditors decide by themselves when will they test the whole population and when only a particular sample, guided by its advantages as time savings, labour and resources that distinguish them as crucial. Guided by their professional knowledge, abilities and past work experience in this field, audit firms agreed on the fact that the size of the surveyed population has the biggest influence on the size of the sample. That is, the size of the sample depends on the size and characteristics of the population, as well as the manner in which the auditor performs a selection of the data that will constitute the representative sample.

The sampling method, which mostly use auditors is sampling by monetary unit, because this method provides the highest percentage of certainty of accuracy of the audit evidence, whose results are received with specific calculation tables for that purpose. By testing the selected sample, auditors detect errors and omissions that may exist, and then propose corrective measures for them.

Auditor with the expression of an opinion provides certainty at a reasonable level, but does not guarantee that the financial statements that were audited are completely free of material omissions, irregularities and errors. With the help of the audit, there is reasonable certainty about the accuracy, regularity, honesty of the information disclosed, but from the audit of the financial statements should not be expected 100% certainty, that is, guarantee of absolute accuracy. That is because, auditors alignment to claim that the auditor's opinion offers about 95% certainty.

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