UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Campionamento di Revisione Contabile

2324-1-F7701M092-F7701M022M

Learning objectives

Often when you have to check the accounting records of a company, it is not possible to reach all the units. Sample theory provides the tools to select only certain units appropriately and understand the sampling techniques used in audit firms.

Contents

The basics of sample theory to help perform audit controls:

-Italian Document 530 for revision sampling

- Sampling by attributes and variables

Detailed program

1. Statistical Sampling
1.1 Use of sampling in business auditing.
1.2 Probabilistic and non-probabilistic sampling.
1.3 Sampling errors and non-sampling errors.
1.5 Recalls on probability.
1.6 Recalls on random variables.
1.6.1 Binomial random variable.
1.6.2 Hypergeometric random variable.
1.6.3 Distribution of errors through the Poisson random variable.

1.6.4 Normal random variable.

2. Simple Random Sampling with and without Replacement/In Blocks
2.1 Introduction.
2.2 Sample mean.
2.2.1 Estimation and estimator.
2.2.2 Confidence intervals.
2.2.3 Determination of sample size for a given precision.
2.3 Sample proportion.
2.3.1 Estimation and estimator.
2.3.2 Confidence intervals.
2.3.3 Determination of sample size for a given precision.
2.4 Estimator of the total.
2.5 Estimator of the accounting error.
2.5.1 Estimator of the total accounting error (average per unit method, average rate method).
2.5.2 Determination of the upper limit of the accounting error and auditor's decision.

3. Methods of Selecting a Sample with or without Replacement
3.1 Definition of the sampling base.
3.2 Random extraction from a list of elements.
3.3 Systematic sampling.
3.4 Problems related to sample selection.

4. Stratified Sampling
4.1 Introduction.
4.2 Sample mean.
4.2.1 Proportional stratified sampling.
4.2.2 Optimal stratified sampling for a fixed sample size.
4.2.3 Efficiency gain due to stratification.
4.2.4 Confidence intervals for the mean, choice of sample size, and hypothesis testing.
4.3 Sample proportion.
4.3.1 Proportional stratified sampling.
4.3.2 Optimal stratified sampling for a fixed sample size.
4.3.3 Efficiency gain due to stratification.
4.3.4 Confidence intervals for the mean, choice of sample size, and hypothesis testing.
4.4 Estimator of the total.
4.5 Estimator of the accounting error.
4.5.1 Estimator of the total accounting error (average per unit method for proportional stratified sampling).
4.5.2 Determination of the upper limit of the accounting error and auditor's decision.

5. Sampling for Monetary Units
5.1 Introduction and definition.
5.2 Sample selection method.
5.3 Estimator of the accounting error.
5.3.1 Conservative approach.
5.3.1.1 Tables of reliability factors: reading and interpretation.
5.3.1.2 Determination of sample size.
5.3.1.3 Determination of total accounting error.
5.3.1.4 Determination of the upper limit of the accounting error and auditor's decision.
5.3.2 Conventional approach.
5.3.2.1 Determination of sample size.
5.3.2.2 Determination of total accounting error.
5.3.2.3 Determination of the upper limit of the accounting error and auditor's decision.

Prerequisites

Basic course of statistics, probability and inference (refer to the course * Metodi Statistici per le amministrazione delle imprese *, 2nd year, Bachelor's Degree Course in Economia ed amministrazione delle imprese -ECOAMM- https: //elearning.unimib.it /course/view.php?id=38771)

Teaching methods

The lectures will be in presence

Assessment methods

During the lessons, exercises will be given that must be submitted to the teacher through the MOODLE platform Exams will be in presence. The exam form will be written with exercises and theory questions.

Textbooks and Reading Materials

Pollastri Angiola *Elementi di Teoria dei Campioni,* CUSL, Milano

Pollastri Angiola *Esercizi di Teoria dei Campioni,* CUSL, Milano

Gruppo24Ore Le tecniche di campionamento nella revisione

Commissione Europea Guida ai metodi di campionamento per le autorità di audit (cap 4-5; 6.3: pagg 89-99)

Guy, D.M., Carmichael, D. R., Whittington, R. (2002) *Audit Sampling. An Introduction* (Fifth edition), Wiley

Reading Materials provided by the teacher.

Semester

First semester

Teaching language

Italian language

Sustainable Development Goals

INDUSTRY, INNOVATION AND INFRASTRUCTURE