UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Campionamento di Revisione Contabile

2223-1-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

1.1 Use of Sampling in Business Audit.

1.2 Probabilistic and non-probabilistic sampling

1.3 Sampling and non-sampling errors

1.4 The distribution of errors through r.v. Poisson.

2 Sampling by attributes and by variables.

2.1 Simple random sampling.

2.1.1 Characteristics of simple random sampling.

2.1.2 Number of possible finite population samples.

2.1.3 Dichotomous characters: the binomial distribution.

2.1.4 Concept of estimation and estimator.

2.1.5 Sample mean estimator and sample variance.

2.1.6 Properties of estimators

2.1.7 The central limit theorem.

2.1.8 Confidence intervals for the mean and proportion.

2.1.9 Choice of sample size.

2.1.10 Examples

2.2 Sampling without reposition and in bulk.

2.2.1 Number of possible samples

2.2.2 Covariance between r-th and s-th extracted element.

2.2.3 Unbiased estimate of mean and variance.

2.2.4 Bulk sampling from dichotomous populations.

2.2.6 Distribution of r.v.. Sample Average.

2.2.7 Confidence interval for the mean.

2.2.8 Choice of sample size.

2.3 Methods of selecting a sample with or without replacement.

2.3.1 Definition of the sample base.

2.3.2 Random extraction from a list of elements

2.3.3 Systematic sampling.

2.3.4 Problems related to sample selection.

3 Stratified sampling.

3.1 Introduction.

3.1.1 Estimation of the mean.

3.2 Stratified proportional sampling.

3.3 Optimal stratified sampling fixed the sample size.

3.5 Efficiency gain due to stratification.

3.6 Confidence intervals for the mean and choice of sample size

4 . Monetary unit sampling

4.1 Definition

4.2 Selection and determination of the sample size

4.3 Estimation of the mean and the upper limit of the error.

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 frontal

Assessment methods

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