RESEARCH METHODS AND DATA ANALYSIS II

Code: 21732

Main Scientific Area: Business management

Lecturer: Pedro Manuel Ribeiro Novo de Melo

Language of Instruction: Portuguese

Regime: S2

Contact Hours: 30h Total Workload: 132h

ECTS: 6,0

Objectives

This curricular unit intends to help the student develop his scientific research project, mainly with data analysis and treatment collected in the research. The goals are:

· Apply the descriptive statistics techniques in the analysis of data set and interpret the findings.

· Apply the statistical Inference techniques as a tool to support decision making and interpret the findings got.

· Identify, plan, and implement the statistical method appropriate to the analytical resolution of a specific problem.

· Analyze and critically interpret the results got.

This curricular unit intends to sensitize students to the importance of correct resolution of real problems in Human Resource Management and Financial Management, providing students with the mastery of main univariate and multivariate techniques used in treatment and analysis of data and inference, using appropriate statistical software.

Learning Outcomes

At the end, students should be able to develop descriptive and inferential analysis of scientific data using parametric and non-parametric methods through the use of statistical analysis software (SPPS and STATA); develop content analysis through interpretative techniques of qualitative data; decide and select the analysis methodologies most appropriate to different practical and research problems and that can execute these methodologies and interpret the information got from the outputs produced by the techniques and software used; and analyze critically means looking at research findings. It is intended those students get solid training in the academic and scientific research field.

Course Contents

1. Introduction to scientific knowledge in Human Resource Management / Financial Management

1.1. Distinction between science and knowledge

1.2. Characteristics of knowledge and scientific method in HRM / Financial Management

1.3. Types of HRM / Financial Management Research

2.Treatment and analysis of information in Human Resource Management / Financial Management research

2.1. The nature of quantitative research

2.1.1. Preparation and application of surveys

2.1.2. Survey plan

2.2. The nature of qualitative research

2.2.1. The importance of descriptive methods

2.2.2. Case-studies

3. Treatment of qualitative information in HRM / Financial Management

3.1. Principles of content analysis

3.2. Types and models

3.3. Content analysis steps

3.4. Content analysis Softwares

4. Treatment of quantitative information in HRM/Financial Management (data analysis using SPSS and STATA)

4.1. Statistical analysis (univariate, bivariate and multivariate data)

4.2. Hypothesis estimation and testing

4.3. Analysis of unifactorial and multifactorial variance

4.4. Linear regression and factor analysis

5. Presentation of information in research and intervention in Human Resources / Financial Management

5.1. Diversity in the presentation of information

5.2. Strategies for analyzing and discussing findings

5.3. Reporting in HRM/Financial Management

Recommended Bibliography

Baptista, C., Sousa, M. (2011). Como Fazer Investigação, Dissertações, Tese e Relatórios Segundo Bolonha. Pactor.

Camm, J., Cochran, J., Fry, M., Ohlmann, J., Anderson, D., Sweeney, D., Williams, T. (2024). Essentials of Statistics for Business and Economics, 10th Ed. Cengage.

Hair, J., Black, W., Babin, B., Anderson, R. (2018). Multivariate Data Analysis, 8th Ed. Cengage.

Newbold, P., Carlson, W., (2023). Statistics for Business and Economics, Global Edition. 10th Ed. Pearson Education Limited.

Pinto, J., Curto, J. (2014). Estatística para Economia e Gestão. Edições Sílabo.

Ratten, V. (2023). Research Methodologies for Business Management. Routledge.

Saunders, M., Lewis, P., Thornhill, A. (2023). Research Methods for Business Students. 9th Ed. Prentice-Hall.

Wooldridge, J. (2019). Introductory Econometrics: A Modern Approach, 7th Ed. Cengage.

Hair, J. Black, W., Babin, B., Anderson, R. (2010)).Multivariate data analysis(6th ed.). New Jersey: Prentice-Hall

Maroco, J. (2007).Analise estatistica – Com utilizacao do SPSS(3a ed.). Lisboa: Edicoes Silabo.

Norusis, M. (2012).IBM SPSS Statistics 19 Guide to Data Analysis. Upper Saddle River, NJ: Pearson.

Pestana, M. H. Gageiro, J. N. (2008).Análise de Dados para Ciências Sociais - A complementaridade do SPSS(5ª ed.).Lisboa: Edições Sílabo.

Learning and Teaching Methods

The curricular unit's syllabus addresses the several dimensions of research methodologies and data analysis, allowing to identify and develop knowledge about data collection methods, qualitative and quantitative data treatment using statistical techniques and software, and discussion of research findings. The syllabus contents are consistent with the curricular unit goals.

Assessment Methods

Human Resource Management

The curricular unit assessment will be carried out according to the following criteria:

- Conducting an individual research project (80%);

- Project presentation (20%).

The project should focus mainly on the collection, analysis, and treatment of data from a research topic in human resources management/financial management at the students' choice.

Financial Management

The curricular unit assessment will be carried out according to the following criteria:

- Conducting an individual research project (80%);

- Project presentation (20%).

The project should focus mainly on the collection, analysis, and treatment of data on a research topic proposed by the students.