



Sustainable Regional Development Academy

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Module 2

Structural Equation Modeling

Goals

- Introduce the fundamentals of Structural Equation Modeling.
- Demonstrate the differences between SEM and traditional regression models.
- Present practical applications of SEM in various research contexts.
- Teach the correct interpretation of SEM results.
- Explore computational tools for SEM modeling.

Competencies

By the end of the training, participants will be able to:

- Understand the theoretical principles of SEM.
- Build and interpret structural equation models.
- Use software such as SmartPLS for SEM analysis.
- Assess the quality of SEM model fit.
- Apply best practices in SEM modeling and interpretation in academic and professional research.

Contents

This introductory course covers the fundamental concepts of Structural Equation Modeling (SEM), a widely used statistical technique for analyzing complex relationships between variables. The training combines theory and practice, including a demonstration of specific software for SEM.

Applications

Estimating a research model using a provided dataset with the SmartPLS software.

References

- Kline, R. B. (2015). Principles and Practice of Structural Equation Modeling.
- Hair, J. F. et al. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).
- Online tutorials on SmartPLS.

Lecturer



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Biographical note

Sofia Gomes has a Ph.D. in applied economics from the University of Santiago de Compostela. University lecturer since 2004, responsible for teaching undergraduate, master's and doctoral degrees in the financial and economic area. She is currently an associate professor at Universidade Portugalense. She was a financial risk analyst at a Portuguese banking institution for ten years. She develops research activities, mainly in entrepreneurship, innovation and circular economy.