



INNOVATION MEASURES

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l'Information**

Business and Decision

26/06/2018-07/08/2018

2018-2019

PLAN

- Introducing the company: Business and Decision
- Problematic
- Introduction
- Data Collection
- The Global Innovation Index
- Innovation in Tunisia
- Innovation strategies
- Conclusion

BUSINESS AND DECISION

- Business & Decision is an international consulting and systems integration company with its global headquarters in Paris.
- The group specializes in Business Intelligence, Customer Relationship Management and e-business with two major directions : Data & Digital.
- Founded by Patrick Bensabat in France in 1992.

BUSINESS AND DECISION

Some of its major activities include:

- Decision making and enterprise performance:
Analytics, business intelligence, Big data..
- E-business: Digital business, web marketing..
- Digital Transformation: customer DNA, fraud detection, e-beacon..

PROBLEMATIC

- How do we measure innovation world-wide And
Where does Tunisia stand?

INTRODUCTION

- Innovation can be simply defined as a new idea, creative thoughts, new imaginations in form of device or method.
- However, innovation is often also viewed as the application of better solutions that meet new requirements or existing market needs.

THE GLOBAL INNOVATION INDEX

- The GII is an annual ranking of countries by their capacity for, and success in, innovation.
- Published by INSEAD and the world's Intellectual Property Organization.
- Used by corporate and government officials to compare countries by their level of innovation.

DATA COLLECTION

- Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes.

DATA COLLECTION

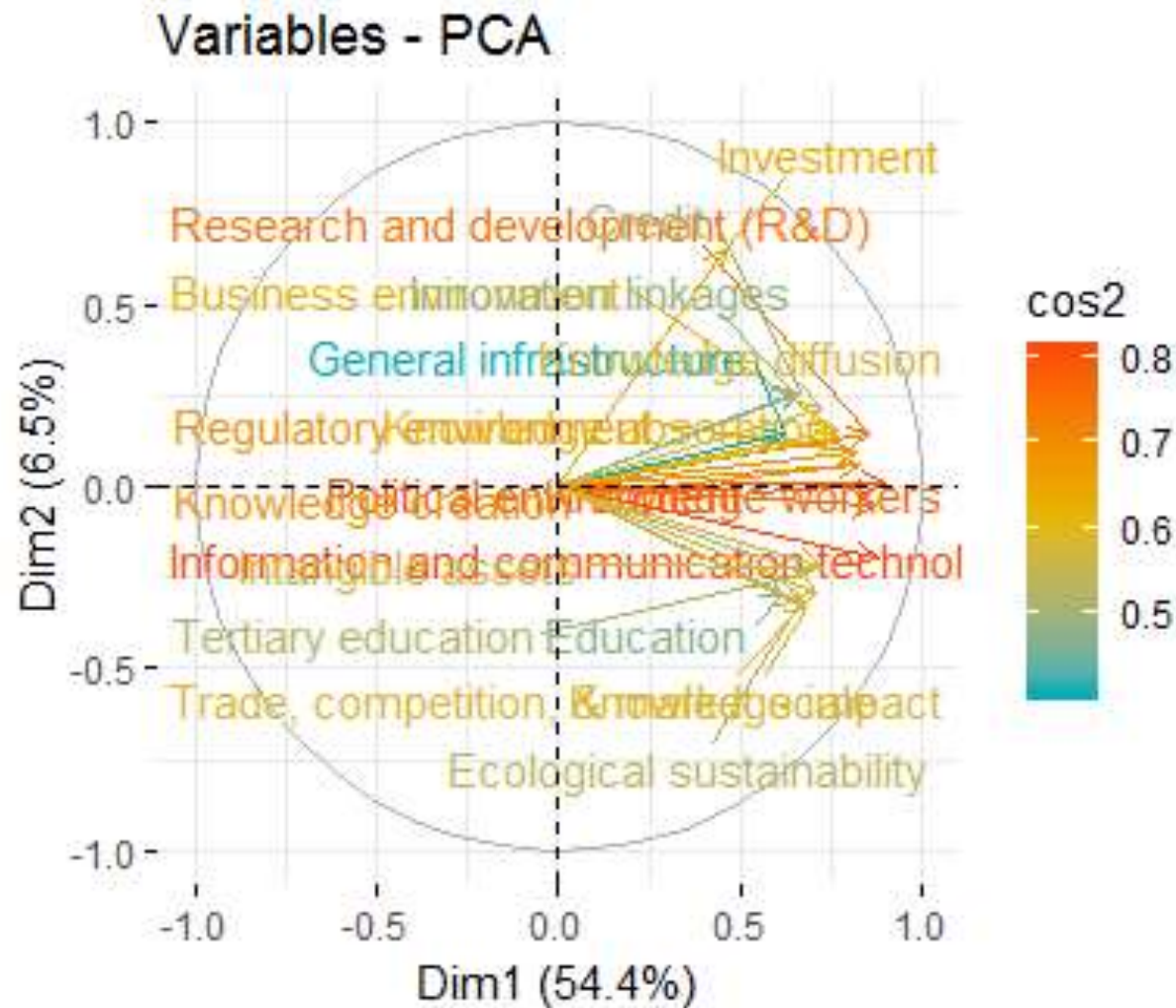
Variables

- Political environment
- Regulatory environment
- Business environment
- Education
- Tertiary education
- Research and development (R&D)
- Information and communication technologies (ICTs)
- General infrastructure
- Ecological sustainability

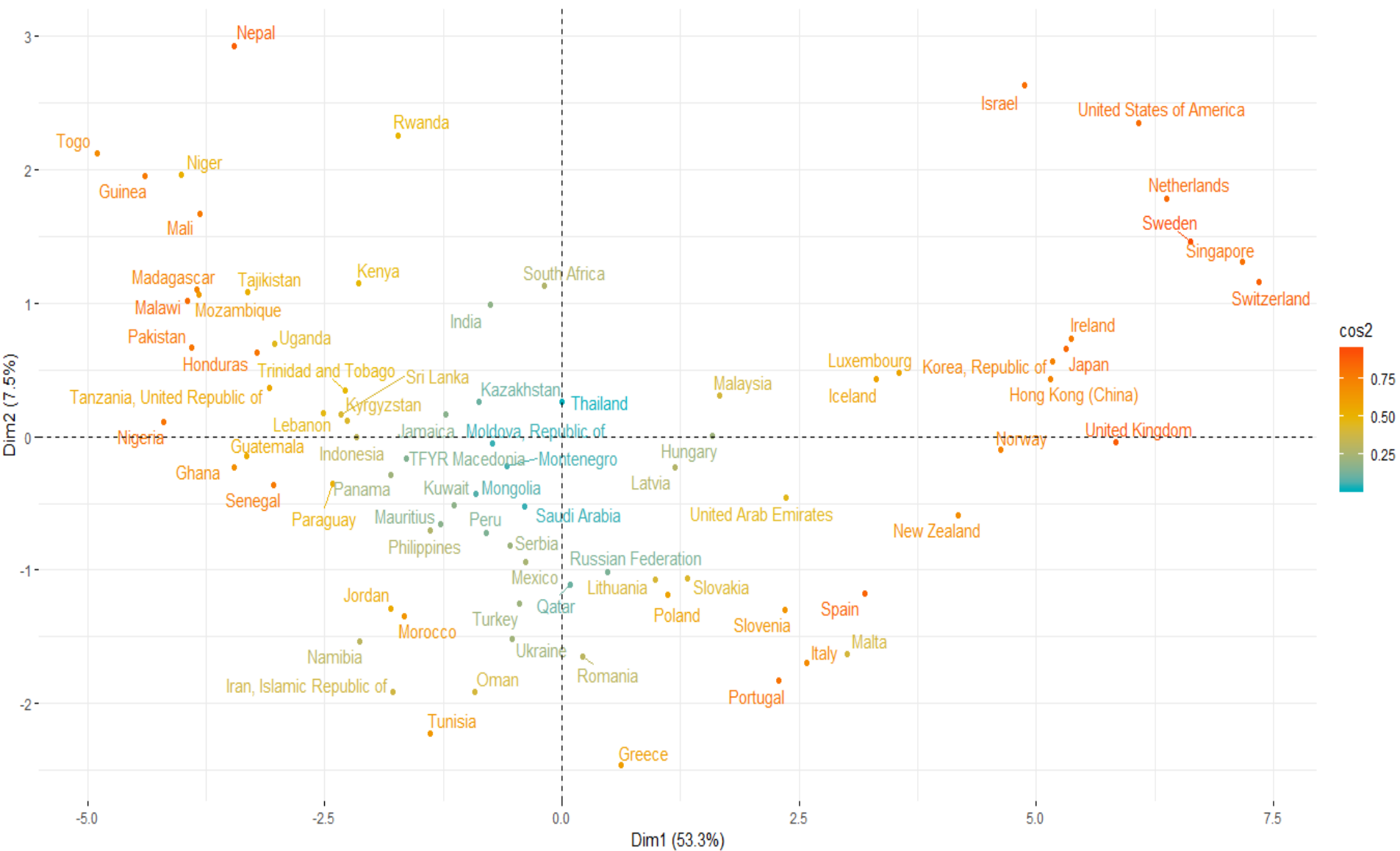
Variables

- Credit
- Investment
- Trade, competition, & market scale
- Knowledge workers
- Innovation linkages
- Knowledge absorption
- Knowledge creation
- Knowledge impact
- Knowledge diffusion
- Intangible assets
- Creative goods and services

PRINCIPALE COMPONENT ANALYSIS



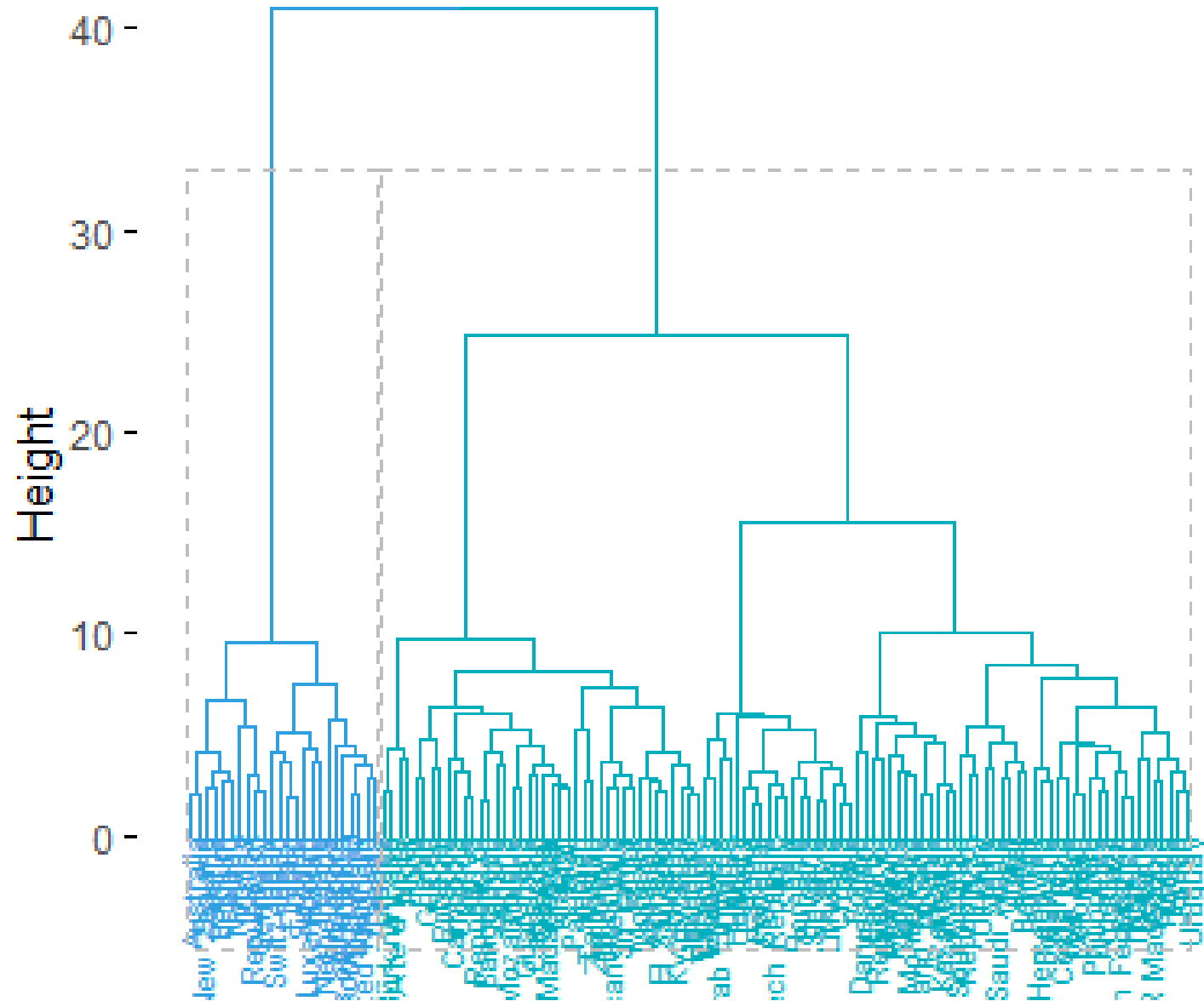
Individuals - PCA



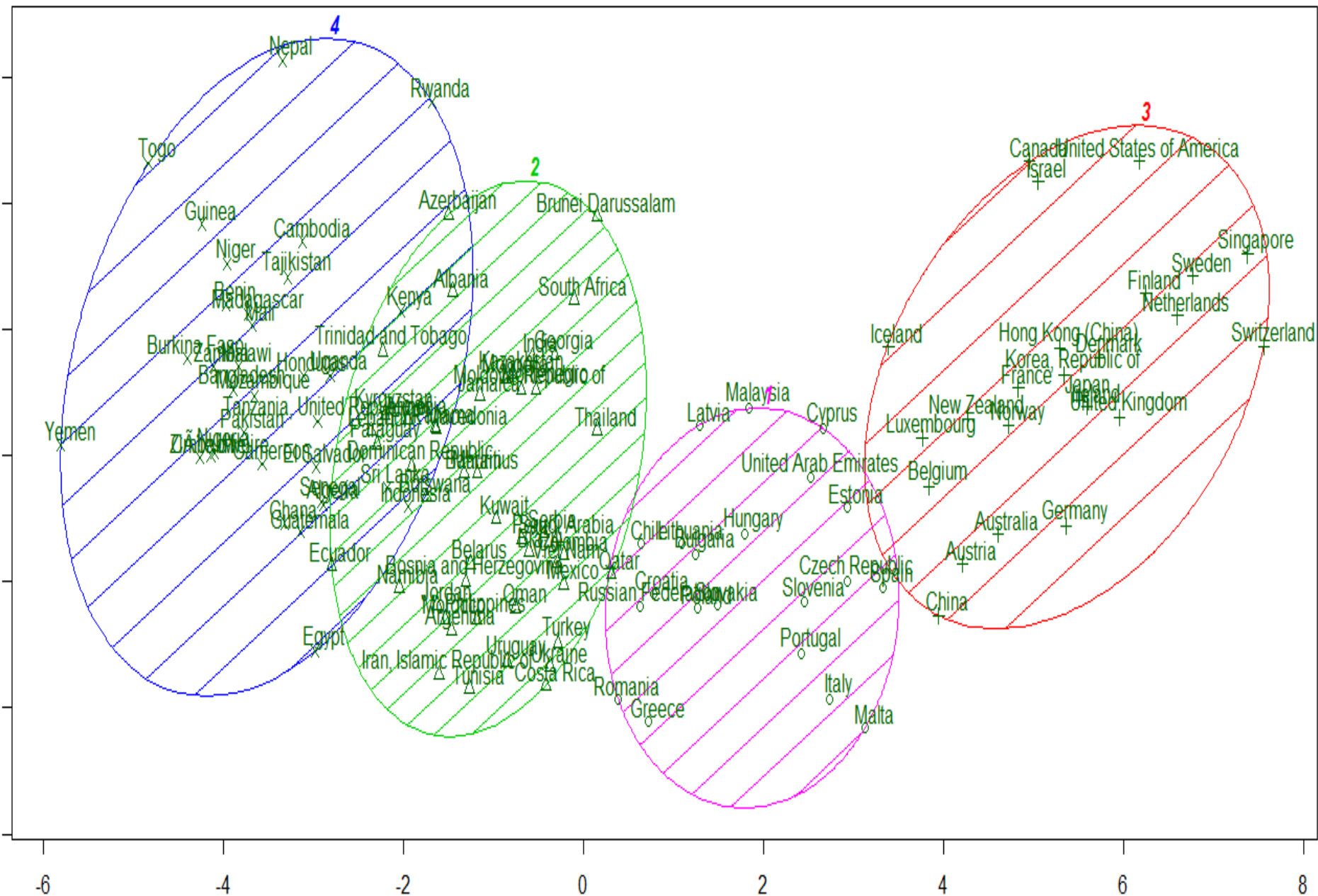
CLUSTERING

- Clustering is the task of grouping a set of objects in such a way that objects in the same group are more similar to each other than to those in other groups.

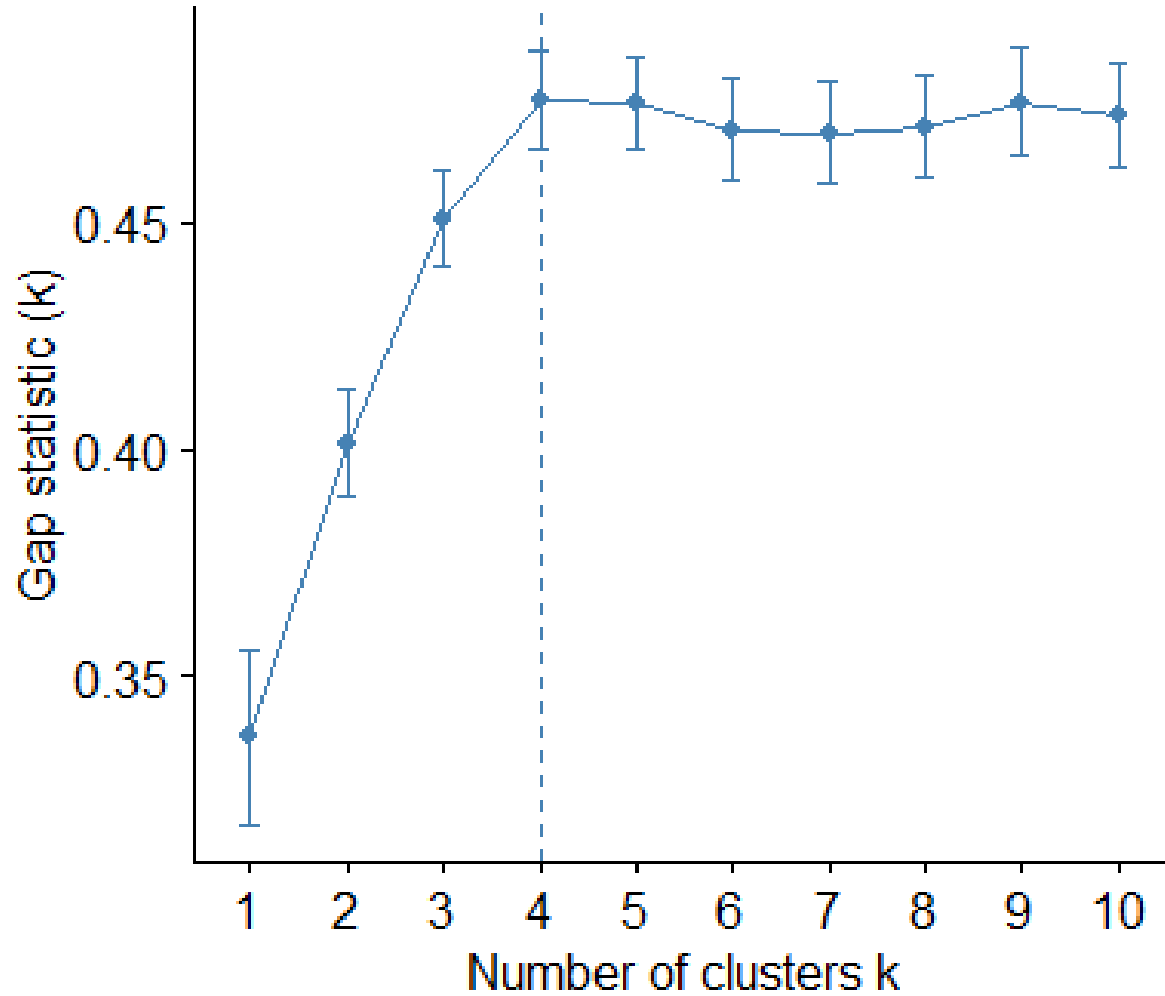
Cluster Dendrogram



CLUSPLOT(data)

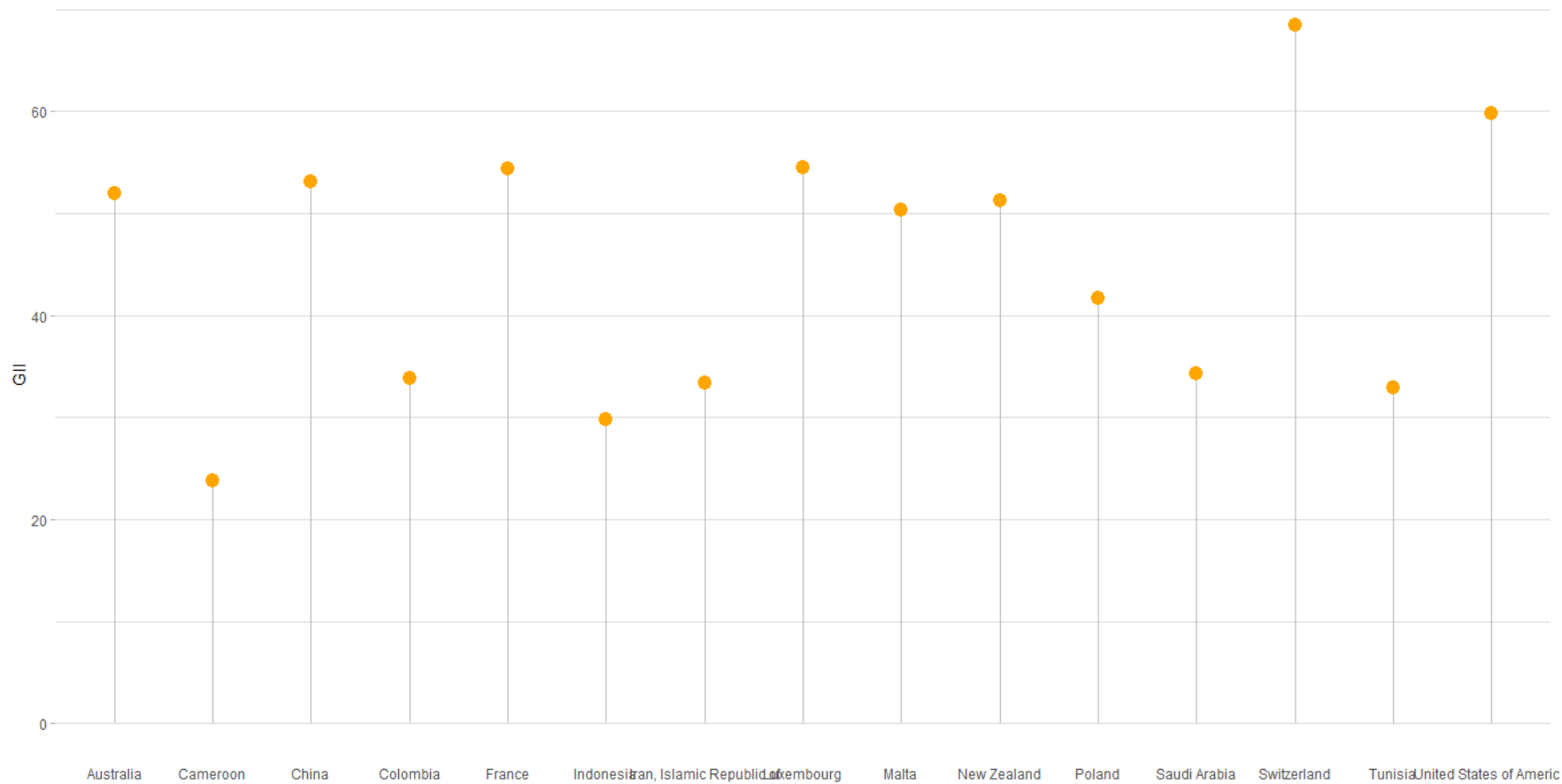


Optimal number of clusters



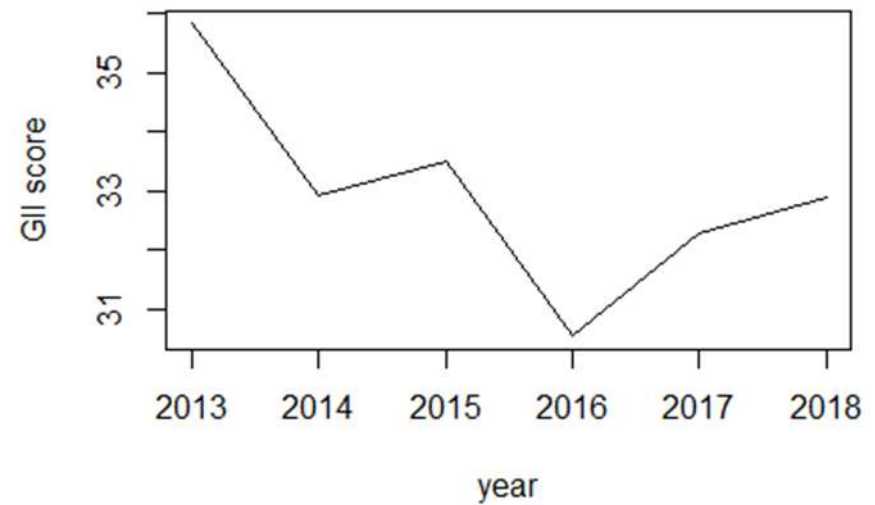
Cluster plot



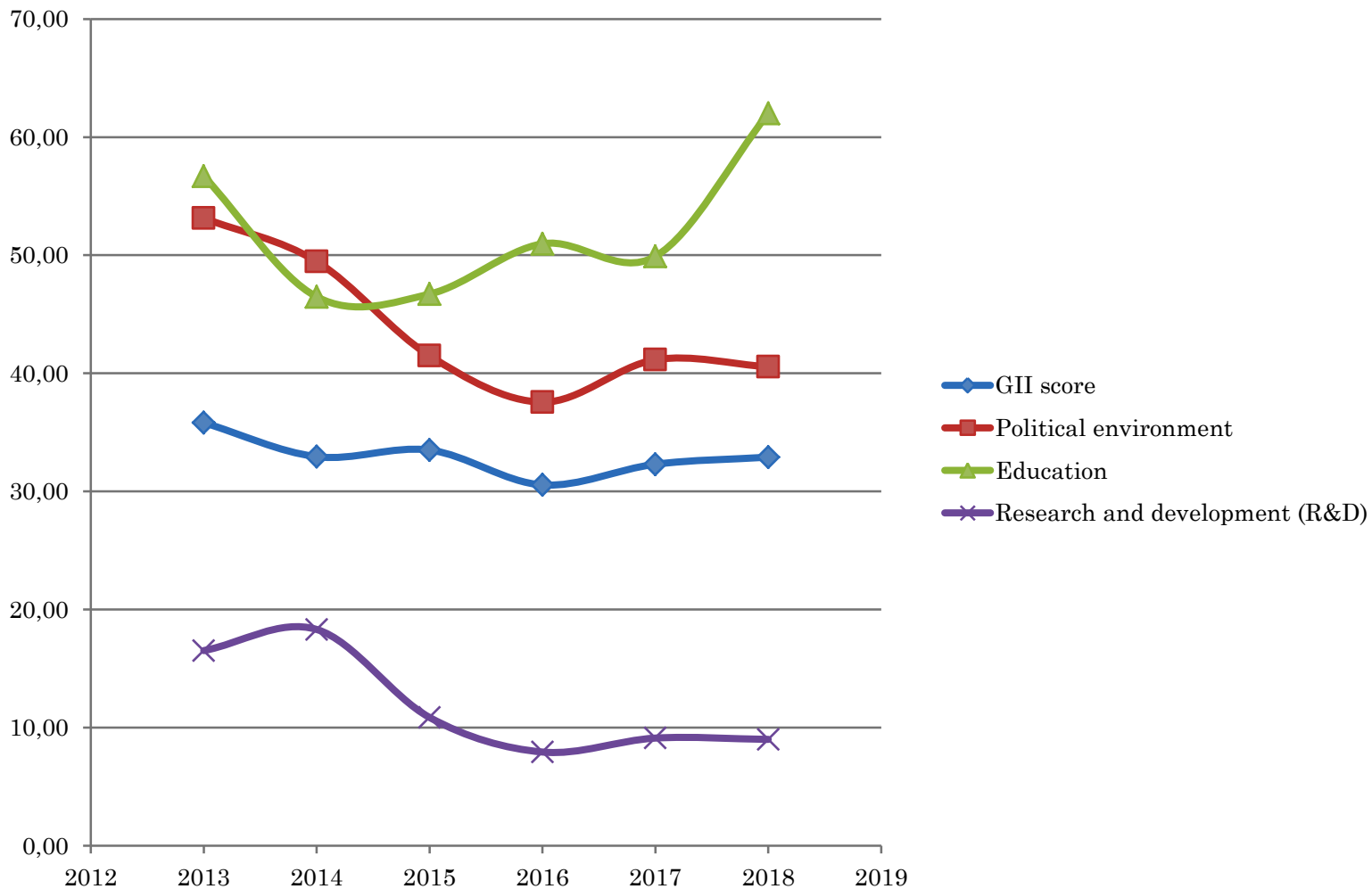


INNOVATION IN TUNISIA

year	GII score
2013	35,82
2014	32,94
2015	33,5
2016	30,55
2017	32,3
2018	32,9



INNOVATION IN TUNISIA



CONCLUSION

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- Unesco: <https://fr.unesco.org/>
- Globalinnovationindex:
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- Oslo manual

THANK YOU FOR YOUR ATTENTION