Explore the GLOBE

Introducing the Data

Analysis

Conclusions

GLOBE Leadership and Society Surveys

Ethan Allavarpu · Raymond Bai · Jaclyn Chiu Ariel Chow · Carlie Lin · Dara Tan

Explore the GLOBE

STATS 140XP · Fall 2021

Explore the GLOBE

Introducing the Data

Analysis

Conclusions

Introducing the Data

Explore the GLOBE

Introducing the Data

Analysi

Conclusion

- GLOBE (Global Leadership & Organizational Behavior Effectiveness)
 - Goal: Identify the relationships between various leadership and societal characteristics
 - Over 17,000 middle managers, 62 cultures
- Outside source: ISO Codes from Wikipedia
 - Uniform identifiers for countries for visualization purposes

Explore the GLOBE

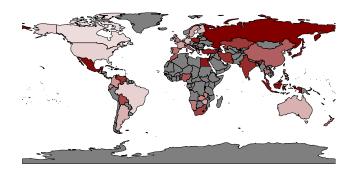
Introducing the Data

Analysis

Conclusion

Exploratory Data Analysis

Autocratic Levels by Country



1.89 3.86

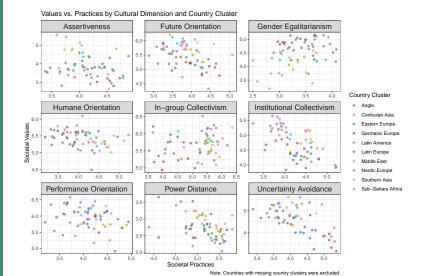
Explore the

Introducing the Data

Analysi

Conclusion

Exploratory Data Analysis



Analysi

Conclusion

Problem Statements

- Which characteristics or traits do countries tend to group together when determining "good" leadership values?
 - Which countries have similar perceptions of these leadership values?
- ② Do societal practices and societal values align?
 - If they do not, which practices and values deviate most significantly?

Explore the GLOBE

Introducing

Analysis

Conclusions

Analysis

Explore the GLOBE

Introducing the Data

Analysis

Conclusions

Leadership Clusters: Methodology

- Remove second-order factor analysis variables (difficult for interpretation)
- **2** Perform PCA on the remaining numeric variables
- 3 Perform *k*-means clustering on the first four principal components for both characteristics and countries

Explore the

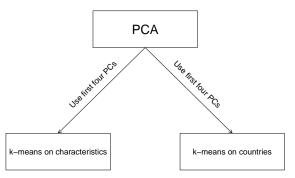
Introducin

Analysis

Conclusions

Leadership Clusters: Methodology

Methodology for Leadership Analysis



Leadership and Society

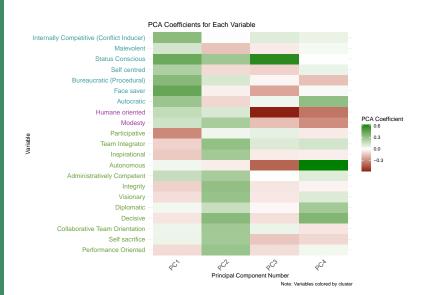
Explore the

Introducing

Analysis

Conclusion

Leadership Clusters: Characteristics



Explore the GLOBE

Introducin the Data

Analysis

Conclusion

Leadership Clusters: Characteristics

- 1 Internally competitive, malevolent, status conscious, self-centred, bureaucratic, face saver, autocratic
 - Negative characteristics
- 2 Humane-oriented, modesty
 - Distinctly different group of two
- 3 Participative, team integrator, inspirational, autonomous, administratively competent, integrity, visionary, diplomatic, decisive, collaborative team orientation, self-sacrifice, performance-oriented
 - Positive characteristics

Explore the GLOBE

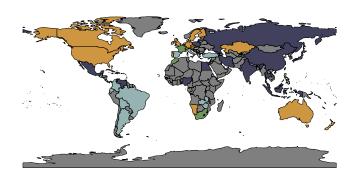
Introducin

Analysis

Conclusion

Leadership Clusters: Countries

K-Means Clustering (k = 4) on the First Four Principal Components



Note: East, West Germany in the same cluster. South Africa colored by Black sample (rather than the White sample)

Explore the GLOBE

Introducin

Analysis

Conclusion:

Leadership Clusters: Countries

• Light Blue: Latin America, Mediterranean

Dark Blue: Asia

Green: No specific regionality

• Gold: Western and Northern Europe, Anglo

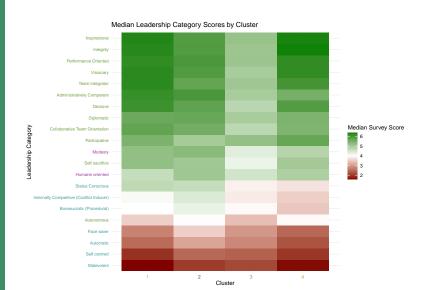
Explore the GLOBE

Introducing

Analysis

Conclusion

Leadership Clusters



Explore the GLOBE

Introducing

Analysis

Conclusion

Societal Values vs. Practices: Methodology

For each cultural dimension:

- Simple linear regression model: $y = \beta_0 + \beta_1 x$
- *t*-test: $H_0: \beta_1 = 0$ versus $H_1: \beta_1 \neq 0$

Explore the GLOBE

Introducin

Analysi

Conclusion

Societal Values vs. Practices: Findings

Table 1: Results of Simple Linear Regression by Cultural Dimension

Cultural Dimension	Coefficient Value	p-value
Uncertainty Avoidance	-0.6199	0.0000
Institutional Collectivism	-0.5251	0.0000
Power Distance	-0.4991	0.0006
Future Orientation	-0.4725	0.0009
Humane Orientation	-0.5944	0.0116
Gender Egalitarianism	0.2437	0.0124
Performance Orientation	-0.3459	0.0268
Assertiveness	-0.1507	0.0414
In-group Collectivism	0.4393	0.0991

Explore the GLOBE

Introducing

Analysis

Conclusions

Conclusions

Explore the GLOBE

Introducin

Analysis

Conclusions

Leadership Clusters

- Characteristics clustered largely on negative or positive connotations
 - Exceptions: Humane oriented, modesty
- Countries clustered heavily on geographic region
 - Exceptions: Green cluster

Explore the GLOBE

Introducin

Analysi

Conclusions

Societal Values vs. Practices

- Practices do not align
 - Correlations often negative
- Consider how this might affect policy implementation

Analysi

Conclusions

Further Research

- Investigate how other indices (e.g., freedom index, happiness index, government approval ratings) explain groupings for leadership values
- Potential causes behind inverse relationship between societal values and practices
 - Are people valuing certain things because they aren't present in the society?
- Expand the survey to more countries to see if regional trends/clusters remain

Analysi

Conclusions

Limitations

- Only 62 cultures observed
- Some countries split
 - Germany: East vs. West (possibly related to Berlin Wall)
 - South Africa: White vs. Black (possibly related to Apartheid)
- Data appears to be from 15+ years ago
 - Potentially outdated information
 - May consider a resurvey
- Unsure of how second-order factor analysis performed
- No "official" codebook-just found the survey questions