



AURAK
الجامعة الأمريكية في رأس الخيمة
AMERICAN UNIVERSITY OF RAS AL KHAIMAH



**DE MONTFORT
UNIVERSITY
DUBAI**

The 1st International Conference on:

**Business Management, Entrepreneurship,
& Sustainable Circular Economy**

04-05 NOV 2024



**American University
Of Ras Al Khaimah**



Springer



ELSEVIER



emerald
PUBLISHING

Intercultural Leadership and Innovation

A Cross-Cultural Research Perspective

Robert J. Rossberger

Professor of Business Administration and International Management
AKAD University, Germany



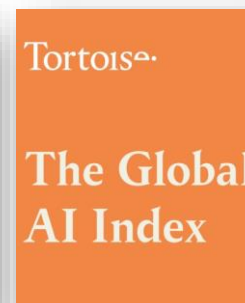
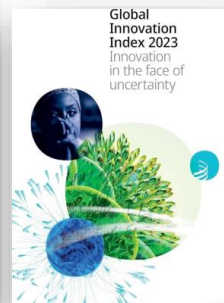
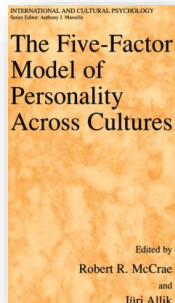
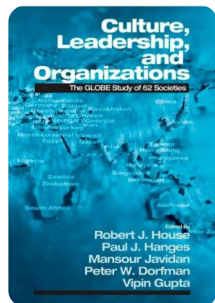
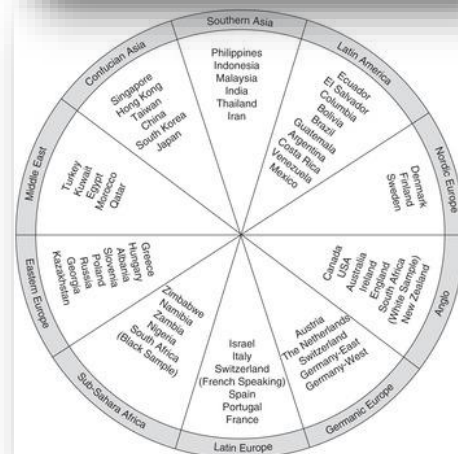
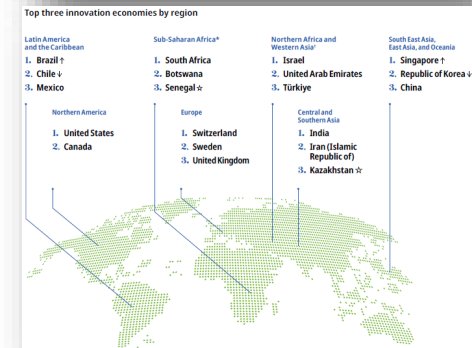
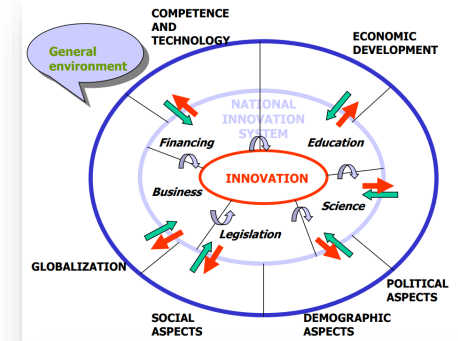
IEREK
RESEARCH • KNOWLEDGE • ENLIGHTENMENT
www.IEREK.com

Agenda

1. Background
2. Theoretical Foundation
 - Innovation, Culture, Leadership, Personality & Strategy
3. Empirical Research
 - Sample, Data and Method
4. Results & Implications
5. Discussion

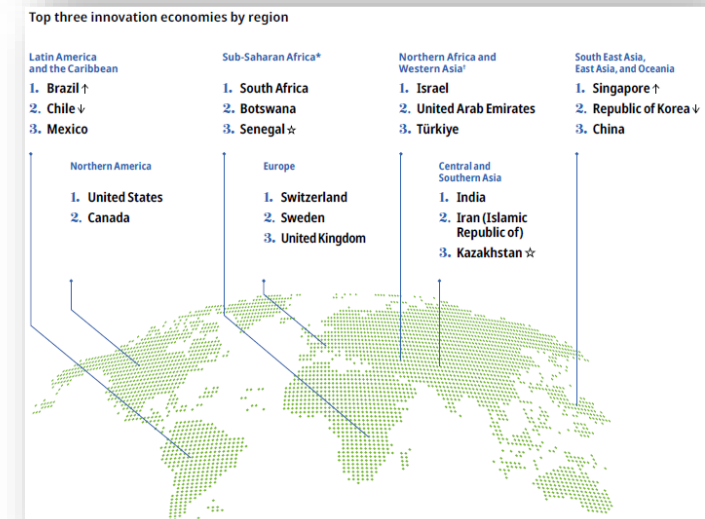
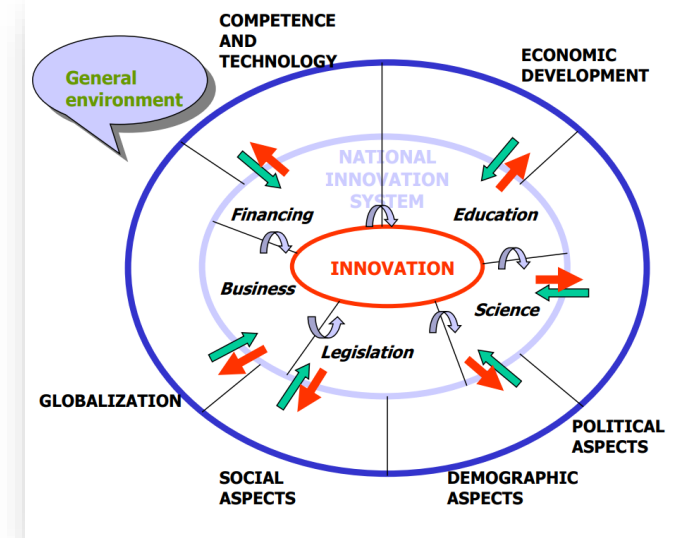
Background

- National culture, leadership, personality, and economic factors influence innovation
- Rising Importance of innovation in AI and remote work context
- AI revolutionizing the innovation ecosystem, but don't forget RW
- Successful AI and remote work integration depends on supportive frameworks
- Multidisciplinary approach: cultural factors, leadership, personality, economics, strategy, ...



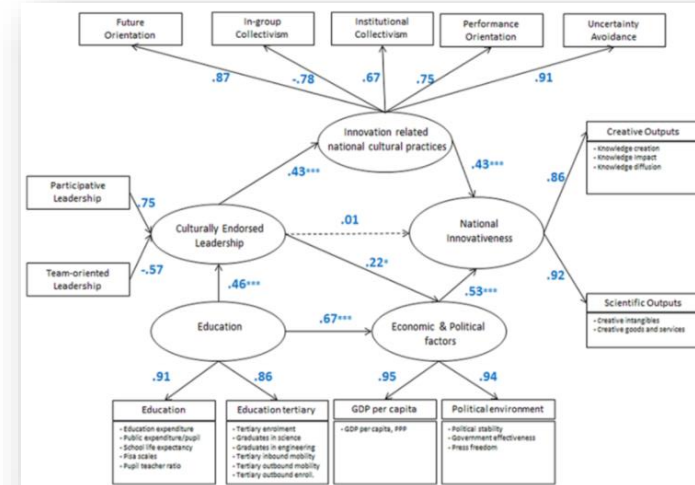
Innovation

- Innovation as renewal, modernization, and change
- National innovation as determinant of economic prosperity
- Countries nurturing creativity, adaptability, entrepreneurship show higher innovation
- Interplay of culture, personality, and leadership influences innovation approach
- Additional important
 - Governmental policies, education, international collaboration, ...



Culture

- GLOBE Study and Edgar Schein's work on culture
- Interplay between national and organizational cultures
 - National culture = country level
 - Organizational culture = organizational level
- Culture generally a pattern shared assumptions, values, and beliefs which helps communities solve external and internal problems
- Leadership's role in shaping organizational (mainly, but not limited to) culture and visa versa
- GLOBE Study: Cultural dimensions impacting leadership
- Cultural (practice) dimensions related to innovation
 - Future orientation (+)
 - Institutional collectivism (+)
 - In-group collectivism (-)
 - Performance orientation (+)
 - Uncertainty avoidance (+)

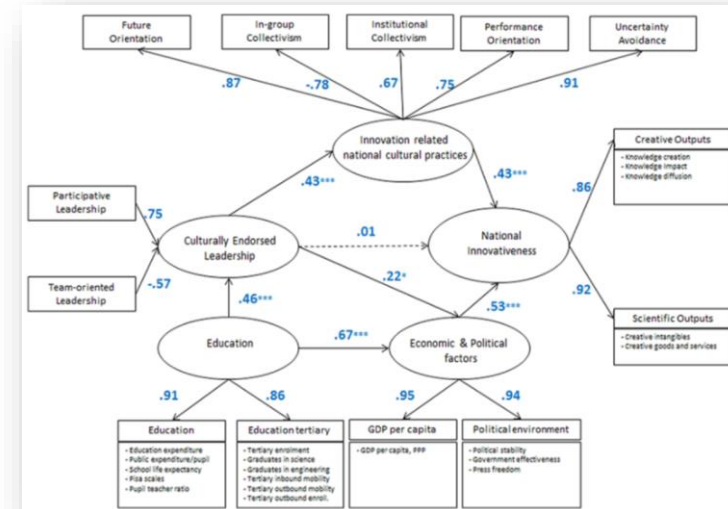


Dimensions	Definitions
Power Distance	The degree to which members of an organization or society expect and agree that power should be shared unequally.
Uncertainty Avoidance	The extent to which members of collectives seek orderliness, consistency, structure, formalized procedures, and laws to cover situations in their daily lives.
Institutional Collectivism	Level at which a society values and rewards "collective action and resource distribution.
In-Group Collectivism	Level at which a society values cohesiveness, loyalty, and pride, in their families and organizations.
Humane Orientation	Ideas and values and prescriptions for behavior associated with the dimension of culture at which a society values and rewards altruism, caring, fairness, friendliness, generosity, and kindness.
Performance Orientation	Level at which a society values and rewards individual performance and excellence.
Assertiveness	A set of social skills or a style of responding amenable to training or as a facet of personality.
Gender Egalitarianism	Level at which a society values gender equality and lessens role differences based gender.
Future Orientation	The extent to which members of a society or an organization believe that their current actions will influence their future, focus on investment in their future, believe that they will have a future that matters, believe in planning for developing their future, and look far into the future for assessing the effects of their current actions.

Note: The definitions are derived from: House R.J. and Hanges P.J., Javidan M., Dorfman P.W., Gupta. Culture, Leadership, and Organizations: the GLOBE Study of 62 Societies (Thousand Oaks, CA: Sage, 2004).

Leadership

- Culturally endorsed implicit leadership theory
 - Individuals hold cultural influenced beliefs “how” leadership should look like (leadership attributes)
 - 6 GLOBE leadership dimensions
- Understanding culturally endorsed leadership styles is highly important if one wants to lead efficient
- GLOBE Leadership dimensions related to innovation
 - Participative leadership (+)
 - Involving others in decision making, flexible
 - Team-oriented leadership (-)
 - Collaborating, integrating, diplomatic
- Note: Mediation effect of cultural practices



GLOBE leadership dimensions	Characteristics of dimensions	Regions where leadership dimensions are widely endorsed
Autonomous leadership	Individualistic, independent, unique.	Endorsed in Eastern European and Germanic clusters, although effects were marginal; weaker endorsement in Latin American cluster.
Charismatic/value-based leadership	Visionary, inspirational, self-sacrificing, decisive, performance-oriented.	Endorsed in all regions, but particularly in Anglo, Asian, and Latin American clusters; weaker endorsement in Arab cluster.
Humane leadership	Modest, tolerant, sensitive, concerned about humanity.	Endorsed particularly in Anglo, Asian, and Sub-Saharan African clusters; less so elsewhere.
Participative leadership	Active listening, non-autocratic, flexible.	Wide variations in endorsements across all regions, but less so in Arab and Latin American clusters.
Self-protective leadership	Self-centered, procedural, status conscious, face-saving.	Wide variations in endorsements across all regional clusters.
Team-oriented leadership	Collaborative, integrating, diplomatic.	Endorsed in all regions, but particularly in Anglo, Asian, and Latin American clusters; less so in Arab cluster.

Personality

- Big 5: Quite stable and universal, some argue even “biological based”
- Personality traits have a meaningful geographic distribution
- National-level personality traits show substantial correlations also with national culture
- Previous research showed strong positive relationship of national innovativeness and
 - Agreeableness
 - Openness to experience
- Note: Mediation effect of cultural practices

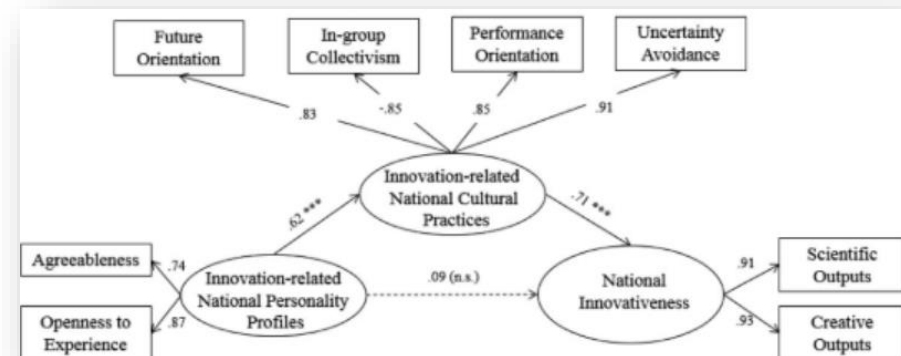


Openness to Experience

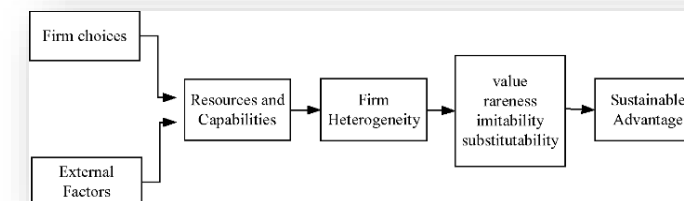
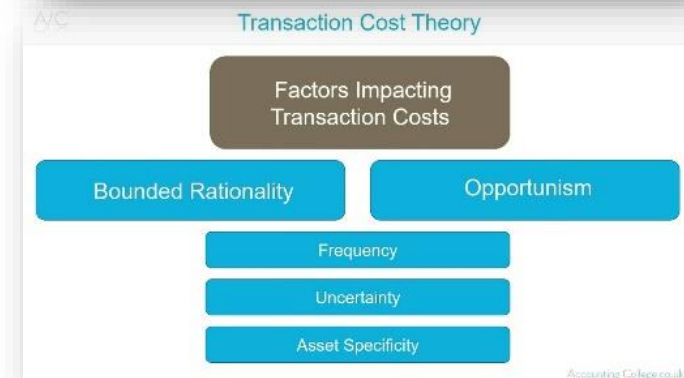
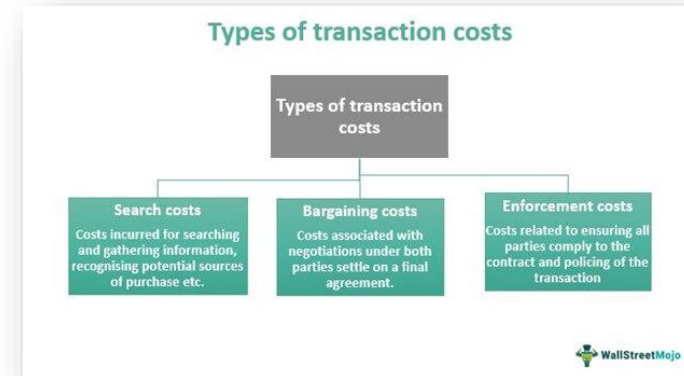
Curiosity
Creativity
Global Awareness
Growth Mindset
Imagination
Innovation
Tolerance

Agreeableness

Collaboration
Collegiality
Generosity
Honesty
Integrity
Kindness
Trustworthiness

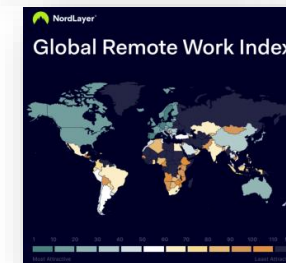
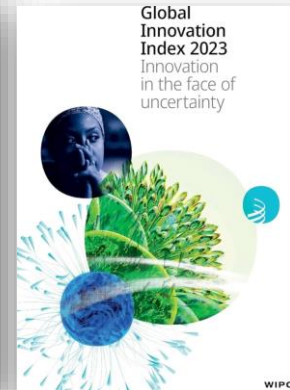
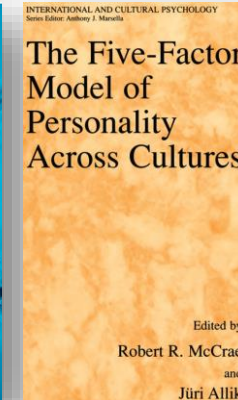
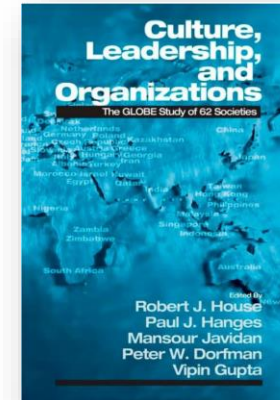


- Artificial intelligence and remote work integration requires navigating new institutional frameworks
- Being able to “cultivate” AI and RW related resources
- Transaction cost theory
 - Compliance costs as transaction costs
 - Strategic shaping of factors to reduce long-term transaction costs
- Resource-based view
 - AI capabilities and RW proficiency as potential strategic assets
 - Importance of data infrastructure, cybersecurity, virtual collaboration processes
 - Risk of obsolescence for those lacking AI and RW resources
- Note: Mediation effect of institutional framework



Sample, Data & Method

- Data Analyzed (Details > Appendix)
 - GLOBE Study and Global Innovation Index: N=54 countries
 - Personality Profiles: N=34 countries
 - Remote Work Index: N=50 countries
 - AI Index: N=39 countries
 - Complete data from all sources: N=26 countries
- Triangulation of 5 independent data sources
 - Elimination of common method and source bias
 - Avoidance of ecological fallacy



	GS	PP	GII	RWI	AI1	AI2		GS	PP	GII	RWI	AI1	AI2
Albania	●		●				Japan	●	●	●	●	●	●
Argentina		●					Kazakhstan						
Australia	●	●	●	●	●	●	Korea	●		●	●	●	
Austria	●	●	●	●	●	●	Kuwait	●	●	●	●	●	
Bolivia	●		●	●			Malaysia	●	●	●	●	●	●
Brazil	●	●	●	●	●	●	Mexico	●	●	●	●	●	●
Canada	●	●	●	●	●	●	Morocco	●		●	●	●	
China	●	●	●	●	●	●	Namibia	●	●	●	●	●	●
Colombia	●		●	●	●	●	Netherlands	●		●	●	●	●
Costa Rica	●		●	●	●	●	New Zealand	●		●	●	●	●
Denmark	●	●	●	●	●	●	Nigeria	●	●	●	●	●	●
Ecuador	●		●	●	●	●	Philippines	●	●	●	●	●	●
Egypt	●		●	●	●	●	Poland	●	●	●	●	●	●
El Salvador	●		●	●	●	●	Portugal	●	●	●	●	●	●
Finland	●	●	●	●	●	●	Russia	●	●	●	●	●	●
France	●	●	●	●	●	●	Singapore	●	●	●	●	●	●
Georgia	●	●	●	●	●	●	Slovenia	●	●	●	●	●	●
Germany	●	●	●	●	●	●	South Africa	●	●	●	●	●	●
Greece	●	●	●	●	●	●	Spain	●	●	●	●	●	●
Guatemala	●		●	●	●	●	Sweden	●	●	●	●	●	●
Hong Kong	●		●	●	●	●	Switzerland	●	●	●	●	●	●
Hungary	●	●	●	●	●	●	Thailand	●	●	●	●	●	●
India	●	●	●	●	●	●	Turkey	●	●	●	●	●	●
Indonesia	●	●	●	●	●	●	UK	●	●	●	●	●	●
Ireland	●	●	●	●	●	●	USA	●	●	●	●	●	●
Israel	●		●	●	●	●	Zambia	●		●	●	●	●
Italy	●		●	●	●	●	Zimbabwe	●		●	●	●	●

	GS	PP	GII	RWI	AII	All		GS	PP	GII	RWI	AII	All
Albania	●		●	●			Japan	●	●	●	●	●	●
Argentina	●	●	●	●	●	●	Kazakhstan	●	●	●	●		
Australia	●	●	●	●	●	●	Korea	●		●	●	●	
Austria	●	●	●	●	●	●	Kuwait	●	●	●			
Bolivia	●		●	●			Malaysia	●	●	●	●	●	●
Brazil	●	●	●	●	●	●	Mexico	●	●	●	●	●	●
Canada	●	●	●	●	●	●	Morocco	●	●	●	●	●	●
China	●	●	●	●	●	●	Namibia	●	●	●	●		
Colombia	●		●	●	●		Netherlands	●		●	●	●	
Costa Rica	●		●	●			Newzealand	●		●	●	●	
Denmark	●	●	●	●	●	●	Nigeria	●	●	●	●	●	●
Ecuador	●		●	●			Philippines	●	●	●	●	●	●
Egypt	●		●	●	●		Poland	●	●	●	●	●	●
El Salvador	●		●	●	●		Portugal	●	●	●	●	●	●
Finland	●	●	●	●	●	●	Russia	●	●	●			
France	●	●	●	●			Singapore	●	●	●	●	●	●
Georgia	●	●	●	●			Slovenia	●		●	●	●	
Germany	●		●	●	●		Southafrica	●	●	●	●	●	●
Greece	●	●	●	●	●	●	Spain	●		●	●	●	
Guatemala	●		●	●			Sweden	●	●	●	●	●	●
Hong Kong	●		●				Switzerland	●		●	●	●	
Hungary	●	●	●	●	●	●	Thailand	●	●	●	●		
India	●		●	●	●		Turkey	●	●	●	●	●	●
Indonesia	●	●	●	●	●	●	UK	●	●	●	●	●	●
Ireland	●	●	●	●	●	●	USA	●	●	●	●	●	●
Israel	●	●	●	●	●	●	Zambia	●		●			
Italy	●		●	●	●		Zimbabwe	●		●	●	●	

Results

Indicator	1	2	3	4	5	6	7	8	9	10	11	12
1.Institutional Collectivism	-											
2.In-group Collectivism	-.37**	-										
3.Future Orientation	.50**	-.54**	-									
4.Performance Orientation	-.48**	-.34*	.63***	-								
5.Uncertainty Avoidance	.49**	-.67**	-.76***	.64***	-							
6.Participative leadership	-.12	-.48**	.25	.10	.24	-						
7.Teamoriented leadership	-.33	.26	-.24	-.27*	-.35*	-.16	-					
8.Openness to experience	.15	-.68	-.02	-.03	.09	.10	-.22	-				
9.Agreeableness	-.01	-.20*	-.14	.03	.21	-.10	.15	-.31	-			
10.GII	.45***	-.57***	.58**	.45***	-.61***	.34*	-.37**	.11	.20	-		
11.RWI	.40**	-.50**	.41**	.29*	-.53***	.34*	-.37**	.28	.16	.86***	-	
12.AII	-.40*	-.43**	.46**	.45**	-.46*	.32*	-.15	.18	.03	.89***	-.66***	-

Notes. Pearson correlations. Two-tailed significance. Sample Size is N=54 (GS, GII), N= 34 (PP), N= 45 (RWI) and N= 39 (AII). * $p < .05$. ** $p < .01$. *** $p < .001$.

Cultural Practices and Innovation

- Uncertainty Avoidance: Positively correlated with GII, RWI, AII
- Institutional Collectivism: Positively correlated with GII, RWI, AII
- In-group Collectivism: Negatively correlated with GII, RWI, AII
- Future Orientation: Positively correlated with GII, RWI, AII
- Performance Orientation: Positively correlated with GII, RWI, AII

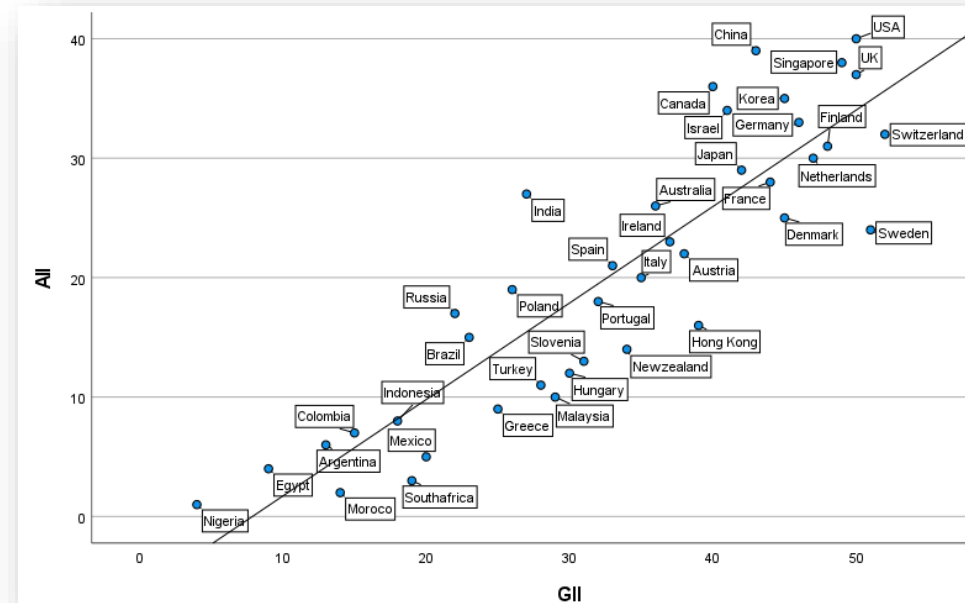
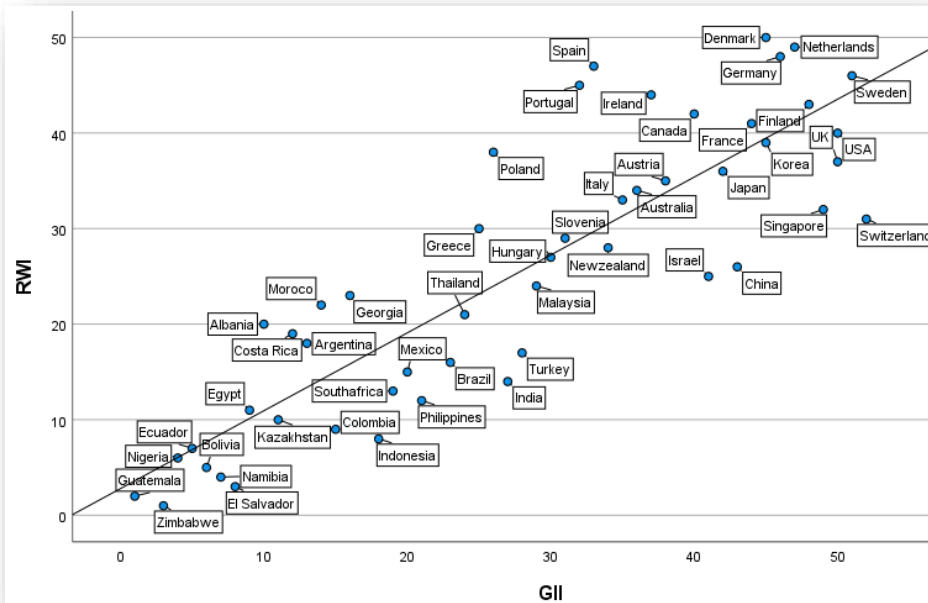
Leadership Dimensions and Innovation

- Participative Leadership: Positively correlated with GII, RWI, AII
- Team-oriented Leadership: Negatively correlated with GII and RWI
 - No significant correlation between Team-oriented Leadership and AII

Personality Factors and Innovation

- Openness to Experience: No significant correlations with GII, RWI, AII
- Agreeableness: No significant correlations with GII, RWI, AII

Results



- RW: $> \Delta$ between GII, RWI and India; $< \Delta$ between GII, RWI and Aii: Australia and France
- RW: $> \Delta$ (high RWI and low Aii) are found in Spain and Portugal ; $> \Delta$ (high Aii and low RWI) are found in India and China.
- RW: European countries: RWI $>$ GII; Asian Countries: RWI $<$ GII
 - No European country is situated below the line, no Asian country is positioned above the line
- AI: No clear geographic distribution regarding Aii compared to RWI

RWI $>$ GII	Aii $>$ GII
Netherlands	China
Germany	India
Finland	USA
RWI $<$ GII	Aii $<$ GII
China	Switzerland
India	Sweden
Indonesia	Netherlands

Results - Summary

Globe study cultural practices (all indices)	Uncertainty Avoidance (+), Institutional Collectivism (+), In-group Collectivism (-), Future Orientation (+), Performance Orientation (+)
Globe study leadership	Participative Leadership (+ with all indices) Team-oriented Leadership (- with GI and RW, no AI)
National personality profiles (all indices)	Openness to experience (no) Agreeableness (no)
High dispersion (Δ) between indices	China, India, Israel, Portugal, Spain
Low dispersion (Δ) between indices	Australia, France, Finland, Japan, Italy
Aii & RWI above GII	Germany, Canada, Australian, Spain, Poland
Aii & RWI below GII	Switzerland, Sweden, South Africa, Turkey, Indonesia
RWI high, Aii low	Spain, Portugal, Denmark, Greece, Sweeden
Aii high, RWI low	China, India, Israel, Singapore, Switzerland

Discussion – Interpretation of Key Findings

Cultural Practices

- Societies with higher uncertainty avoidance, institutional collectivism, future orientation, and performance orientation tend to be more innovative
- These societies are also better prepared for remote work and AI adoption
- In-group collectivism appears to hinder remote work readiness



Leadership

- Participative leadership styles positively associated with innovation, remote work readiness, and AI adoption
- Team-oriented leadership shows negative relationship with innovation and remote work readiness



Personality

- National personality profiles may not be strong predictors of innovative capacity, remote work readiness, or AI adoption



Discussion - Implications

Sustainability

- Opportunities Energy Efficiency, physical infrastructure, commuting
- Challenges: Energy Demands
- Aligning AI and RW strategies with environmental, social, and governance principles may be crucial for achieving long-term sustainable ecologic, social, and economic prosperity



Competitive advantage

- AI and RW are catalyzing the rise of decentralized, globally distributed network organizations and decentralized autonomous organizations
- AI automation enables lean, flexible operations with minimal bureaucracy, while RW facilitates tapping into global talent pools.
- Those strategically cultivating these AI and RW capabilities and competencies may achieve innovative structural advantages



New Forms of collaboration – Advancement

- AI drives digitalization by enhancing automation, decision-making, and efficiency.
- As AI evolves, its influence on digital transformation is expected to deepen, shaping the future of technology-driven economies and societies.



Discussion - Recommendations & Further Research

Societal level

- Meaningful and favorable regulatory and statutory framework conditions are elementary
- Fostering of open, free-thinking mindset, along with positive, performance-oriented attitudes and supportive, non-restrictive rules informal rules and frameworks seem promising



Organizational level

- Leaders must provide clear direction and the right amount of guidance to highly skilled employees who are essential for innovation.
- As AI and RW proliferate, leadership styles, organizational cultures, corporate education strategies, and personnel selection criteria must evolve.
- Cultivating psychological safety, upskilling for human-AI collaboration, and hiring for adaptability will become paramount.



Individual level

- Embracing a learning mindset and adopting to the new and agile environment are important basic competences.
- Individuals must embrace lifelong learning, cognitive flexibility, curiosity, and questioning norms



Discussion – Limitations & Further Research

- Limited country selection may restrict generalizability
- Further qualitative and quantitative analysis
 - Longitudinal studies to understand evolving relationships
 - E.g. expert interviews, cluster analysis and structural equation modelling
- Fast changing VUCA world
 - Actuality of measures and indicators of latent constructs (culture, personality, education)
 - Changes and developments regarding remote work and general new forms of collaboration
 - And, of course, the rapid, revolutionary changes and developments brought by artificial intelligence





AURAK
الجامعة الأمريكية في رأس الخيمة
AMERICAN UNIVERSITY OF RAS AL KHAIMAH



**DE MONTFORT
UNIVERSITY
DUBAI**

The 1st International Conference on:

Business Management, Entrepreneurship, & Sustainable Circular Economy

04-05 NOV 2024



American University
Of Ras Al Khaimah

 Springer



 emerald
PUBLISHING



Thank you!

Robert Rossberger

robert.rossberger@akad.de

Literature

- Barney, Jay B. (2011): Gaining and sustaining competitive advantage. 4th ed. Upper Saddle River, NJ: Pearson.
- Barrick, Murray R.; Mount, Michael K. (1991): The big five personality dimensions and job performance: a meta-analysis. In: *Personnel Psychology* 44 (1), S. 1–26.
- Cesareo, Serena; White, Joseph (2024): Global AI Index. Online verfügbar unter <https://www.tortoisemedia.com/intelligence/global-ai/#data>.
- Coase, R. H. (1937): The nature of the firm. In: *Economica* 4 (16), S. 386–405. Online verfügbar unter <http://www.jstor.org/stable/2626876>.
- Cockburn, Iain; Henderson, Rebecca; Stern, Scott (2018): The Impact of Artificial Intelligence on Innovation. Cambridge, MA.
- Costa, P. T.; McCrae, R. R. (1992): Revised NEO Personality Inventory and NEO Five-Factor Inventory (FFI) Professional Manual: Interpretative Report. Odessa, FL (Psychological Assessment Resources).
- Hanges, Paul J.; Dickson, Markus (2004): The development and validation of the GLOBE culture and leadership scales. In: Robert J. House (Hg.): *Culture, leadership, and organizations. The GLOBE study of 62 societies*. Thousand Oaks, Calif.: Sage, S. 122–151.
- Hofstede, Geert; McCrae, Robert R. (2004): Personality and Culture Revisited: Linking Traits and Dimensions of Culture. In: *Cross-Cultural Research* 38 (1), S. 52–88. DOI: 10.1177/1069397103259443.
- House, Robert J. (Hg.) (2004): *Culture, leadership, and organizations. The GLOBE study of 62 societies*. Thousand Oaks, Calif.: Sage Publ.
- INSEAD (Hg.) (2011): *Global Innovation Index 2011*. Online verfügbar unter <http://www.globalinnovation>.
- Isalm, Safikul (2024): AI for Sustainable Development: Addressing Environmental and Social Challenges. In: *JAIGS* 3 (1), S. 97–105.
- Javidan, Mansour (2004): Performance orientation. In: Robert J. House (Hg.): *Culture, leadership, and organizations. The GLOBE study of 62 societies*. Thousand Oaks, Calif.: Sage, S. 239–281.
- Kozlowski, Steve W. J.; Klein, Katherine J. (2000): A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In: *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions*. Hoboken, NJ, US: Jossey-Bass/Wiley, S. 3–90.
- Lord, Robert G.; Maher, Karen Jean (1993): *Leadership and information processing. Linking perceptions and performance*. 1. paperback ed. London: Routledge (People and organizations). Online verfügbar unter <http://www.loc.gov/catdir/enhancements/fy0648/93013076-d.html>.
- Maipas, Sotirios; Panayiotides, Ioannis G.; Kavantzias, Nikolaos (2021): Remote-Working Carbon-Saving Footprint: Could COVID-19 Pandemic Establish a New Working Model with Positive Environmental Health Implications? In: *Environmental health insights* 15, 11786302211013546. DOI: 10.1177/11786302211013546.
- Maslej, Nestor; Fattorini, Loredana; Perrault, Raymond; Parli, Vanessa; Brynjolfsson, Erik (2024): *The AI Index 2024 Annual Report*.
- McCrae, Robert R.; Terracciano, Antonio (2008): The five-factor model and its correlates in individuals and cultures. In: *Multilevel analysis of individuals and cultures*. New York, NY: Taylor & Francis Group/Lawrence Erlbaum Associates, S. 249–283.
- Montes, Gabriel Axel; Goertzel, Ben (2019): Distributed, decentralized, and democratized artificial intelligence. In: *Technological Forecasting and Social Change* 141, S. 354–358. DOI: 10.1016/j.techfore.2018.11.010.
- Nordlayer (2024): *Global Remote Work Index 2023*. Online verfügbar unter <https://nordlayer.com/global-remote-work-index/>.
- Penrose, Edith Tilto (1995): *The theory of the growth of the firm*. Oxford: Oxford Univ. Press.
- Prahalad, C. K.; Hamel, Gary (1990): The core competence of the corporation. In: *Harvard Business Review*, S. 79–91.
- Rossberger, Robert Josef (2014): National Personality Profiles and Innovation: The Role of Cultural Practices. The Role of Cultural Practices. In: *Creativity & Inn Man* 23 (3), S. 331–348. DOI: 10.1111/caim.12075.
- Rossberger, Robert Josef; Krause, Diana E. (2015): Participative and Team-Oriented Leadership Styles, Countries' Education Level, and National Innovation. In: *Cross-Cultural Research* 49 (1), S. 20–56. DOI: 10.1177/1069397114534825.
- Schein, Edgar H. (2004): *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass.
- Taylor, Mark Zachary; Wilson, Sean (2012): Does culture still matter?: The effects of individualism on national innovation rates. In: *Journal of Business Venturing* 27 (2), S. 234–247. DOI: 10.1016/j.jbusvent.2010.10.001.
- Triandis, Harry Charalambos (2004): Forward to the GLOBE study. In: Robert J. House (Hg.): *Culture, leadership, and organizations. The GLOBE study of 62 societies*. Thousand Oaks, Calif.: Sage, S. xv–xix.
- Uwaoma, Prisca Ugomma; Eleogu, Tobechukwu Francis; Okonkwo, Franciscamary; Farayola, Oluwatoyin Ajoke; Kaggwa, Simon; Akinoso, Abiodun (2024): AI's Role in Sustainable Business Practices and Environmental Management. In: *IJRIS X (XII)*, S. 359–379. DOI: 10.51244/ijrsi.2023.1012029.
- Williamson, Oliver E. (1985): *The economic institutions of capitalism. Firms, markets, relational contracting*. New York, NY: Free Press.
- World Intellectual Property Organization (WIPO) (2023): *Global Innovation Index 2023. Innovation in the Face of Uncertainty*. 1st ed. Geneva: WIPO.