

Features of the Development of Tourist Destinations in Industry 4.0

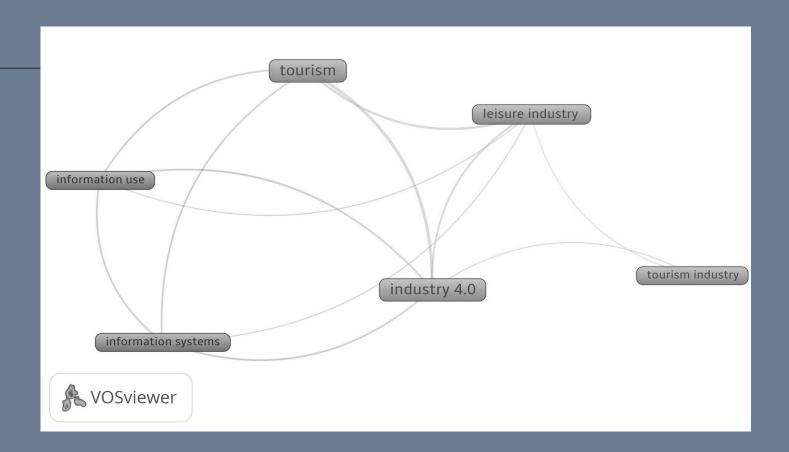
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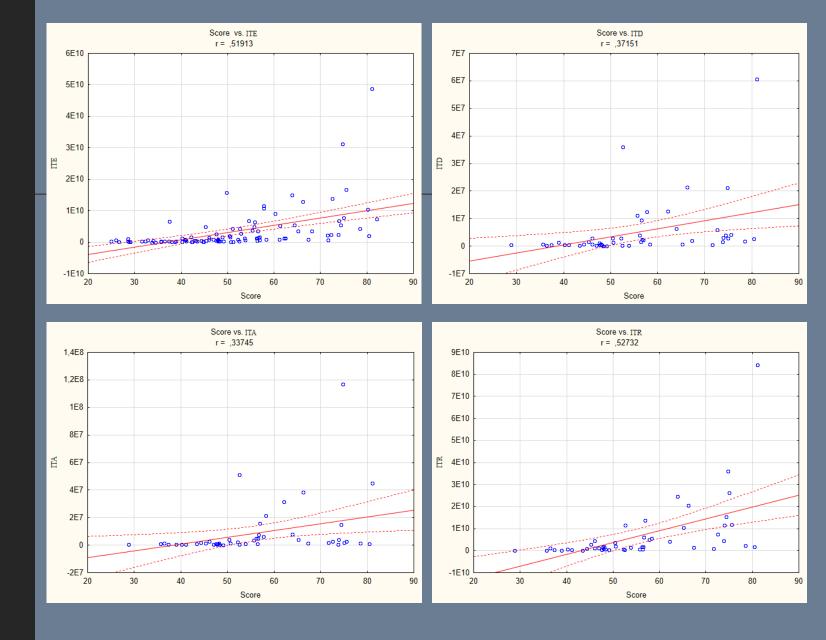
Introduction to Industry 4.0 and Tourism

- Industry 4.0 integrates IoT, AI, Big Data, and cyber-physical systems across the economy, including tourism.
- Tourism is a strategic growth driver and foreign-exchange earner for many economies; UNWTO reported 1.4 bn international arrivals in 2018.
- Digital tools (online booking, epayments, VR/AR) expand access and reshape interactions among stakeholders.



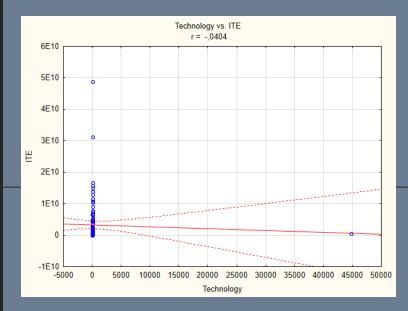
Relationship between NRI and International Tourism (ITE, ITA, ITD and ITR)

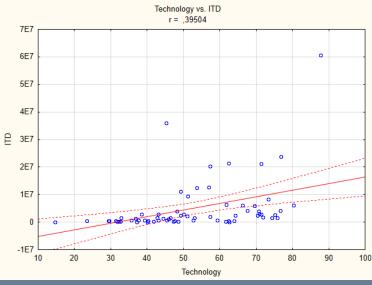
- NRI vs tourism indicators (Fig. 1): ITE $r\approx0.52$, ITA $r\approx0.34$, ITD $r\approx0.37$, ITR $r\approx0.52-0.53$
- Interpretation: greater network readiness is associated with stronger tourism performance.

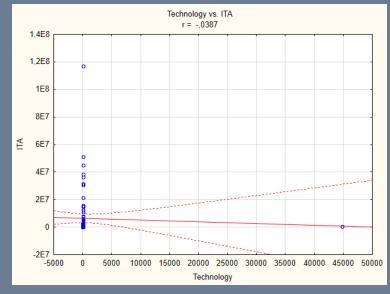


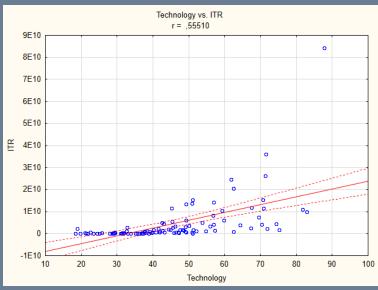
Relationship between Technology and International tourism (ITE, ITA, ITD and ITR)

- Technology vs ITE r≈-0.04, ITA r≈-0.04
- Technology vs ITD r≈0.40, ITR r≈0.56
- Implication: technology availability alone doesn't drive arrivals/expenditures; effects are stronger for departures/receipts



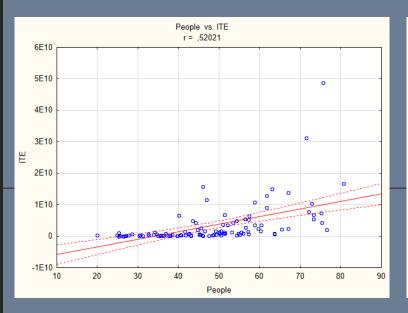


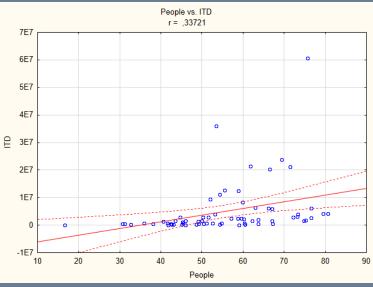


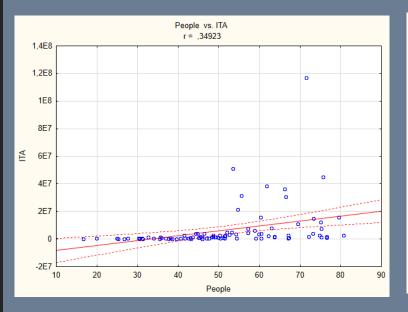


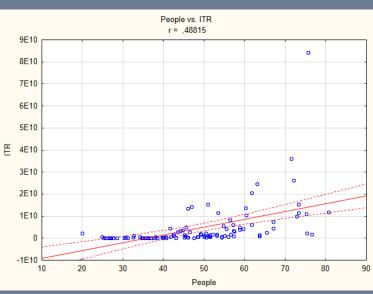
Relationship between People and International tourism (ITE, ITA, ITD and ITR)

People vs ITE $r\approx0.52$, ITA $r\approx0.35$, ITD $r\approx0.34$, ITR $r\approx0.49$ — human capital/skills co-move with tourism outcomes.



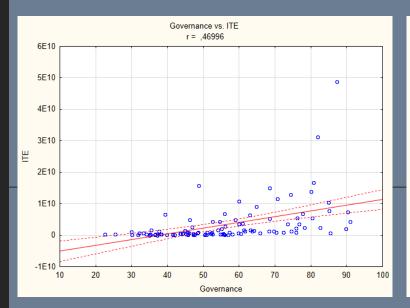


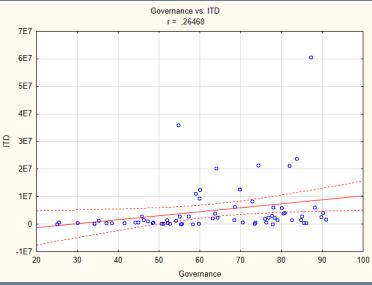


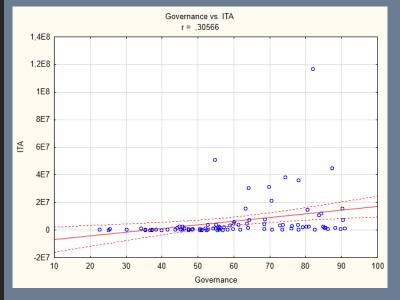


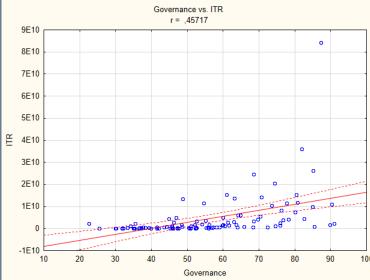
Relationship between Governance and International tourism (ITE, ITA, ITD and ITR)

Governance vs ITE $r \approx 0.47$, ITA $r \approx 0.31$, ITD $r \approx 0.26$, ITR $r \approx 0.46$ — digital policy/institutions matter.



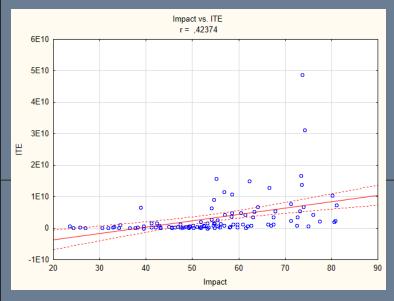


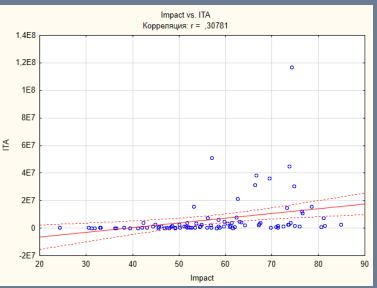


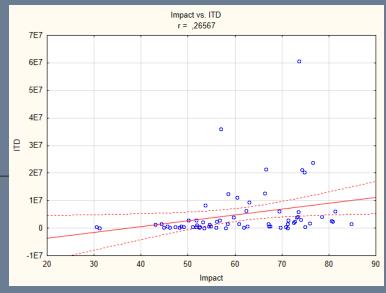


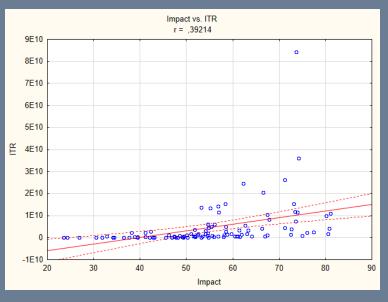
Relationship between Impact and International tourism (ITE, ITA, ITD and ITR)

Impact vs ITE $r\approx0.42$, ITA $r\approx0.31$, ITD $r\approx0.27$, ITR $r\approx0.39$ — measurable outcomes of digitalization align with tourism performance.









Digital Technologies Impact on Tourism

- Digital economy enables online booking, route planning, and payments, critical for modern tourism.
- Strong correlations: NRI with tourism indicators (ITE: 0.52, ITR: 0.49), except Technology sub-index (e.g., ITE: -0.04)
- Effects: Increased tourist flows, service quality, and economic growth.
- Factor analysis: NRI sub-indices (47.1%) and tourism indicators (40.7%) explain 87.1% variance.

| Variable | Marked correlations are significant at p <,05000 (Casewise deletion of missing data) | | | |
|------------|--|------------|------------|-------------|
| | ITE (N=106) | ITA (N=92) | ITD (N=66) | ITR (N=103) |
| NRI | 0,519134 | 0,337644 | 0,327816 | 0,493471 |
| Technology | -0,040383 | -0,038672 | 0,395040 | 0,555096 |
| People | 0,520211 | 0,349233 | 0,337211 | 0,488150 |
| Governance | 0,469957 | 0,305655 | 0,264600 | 0,457172 |
| Impact | 0,423745 | 0,307814 | 0,265668 | 0,392141 |

Pearson correlations between international tourism development indicators and NRI and its components

Thank you for attention