Social Network Analysis for the Swiss Tourism Guidelines

An output of the Swiss SDG Tourism Dialogue

Authors: Christian Baumgartner (FHGR), Veronika Schanderl (Swisscontact)

Contact & further information: christian.baumgartner@fhgr.ch, veronika.schanderl@swisscontact.org

Disclaimer

These guidelines have been developed within the SECO-financed project Swiss SDG Tourism Dialogue, based on a first SNA analysis carried out in 2020. Due to the Covid-19 pandemic, the research followed a pragmatic approach with limited respondents.

The SNA itself has been financed primarily by the University of Applied Sciences of the Grisons, FHGR, and the Swiss Foundation for Technical Cooperation, Swisscontact, through own resources.

Chur/Zurich, 2021
**CONTEXT**

In the frame of the Swiss SDG Tourism Dialogue, a Social Network Analysis (SNA) was developed to visualize which stakeholders within the Swiss tourism system are interlinked with each other, and which information flows and means of interaction concerning sustainability in tourism exist among them.

The goal was to identify strength and weaknesses within the flow of information, to be able to

- further improve communication and collaboration between existing players,
- integrate stakeholders that are relatively isolated with little interaction with others,
- increase the general outreach of the tourism & SDG communication.

These guidelines present the learnings and aim at supporting the regular repetition of the SNA to show developments over time and to introduce measures targeted at improving information and communication.

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**APPROACH**

Social networks are an essential basis for the creation and functioning of business relationships within industries and regions. They connect individual actors and create a basis of trust, which is the most important factor for building new relationships. Consequently, for the exchange of information and knowledge, many actors orientate themselves on already existing networks.

A Social Network Analysis (SNA) is a method used to capture and analyze different connections between specific players in a network. The SNA allows to identify

- Stakeholders and their degree and kind of interactions with each other,
- So-called “gatekeeper” positions, pointing towards key players in positions that connect other stakeholders,
- How active stakeholders are within the overall network, and
- If interaction is mutual or one-sided.

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**Swiss SDG Tourism-Dialogue**

Switzerland has been a driving force behind the 2030 Agenda and its 17 Sustainable Development Goals (SDGs). Tourism contributes to the achievement of the SDGs in numerous ways. Within the context of this initiative, this specifically includes Swiss incoming tourism, Swiss outgoing tourism and the strengthening of tourism in developing and emerging countries via Swiss-funded and/or Swiss-implemented international development cooperation.

The Swiss SDG Tourism Dialogue is financed by the Swiss State Secretariat for Economic Affairs, SECO, and co-financed by its consortium partners, FHGR (University of Applied Sciences of the Grisons), ecos, gutundgut, myclimate, SRV (Swiss travel association, STV (Swiss tourism federation) and the Swiss Parks Network, and its consortium leader, the Swiss Foundation for Technical Cooperation (Swisscontact).

In 2020 and 2021, the Swiss SDG Tourism Dialogue strives towards more sustainability in tourism through information, knowledge exchange and collaboration.

Key activities include:

- facilitation of events in events, and own events
- sharing of information via LinkedIn
- documentation on UNWTO’s tourism4SDGs

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How the Social Network Analysis can also help you to identify possible solutions to your tourism development challenges.

- Are you an organization in charge of the management of your destination? Or an initiative supporting tourism development in your region?
- Are you interested in identifying which of your partners and stakeholders are crucial for the success of your own work?
- Do you have a specific task or problem, and are unsure whom to collaborate and how?

FHGR and Swisscontact are at your services to accompany you on your tourism development path.

Request our services, and benefit from FHGR’s academic yet practically oriented research, and from Swisscontact’s global experiences and learnings in destination management:

[ tourism@swisscontact.org ](mailto:tourism@swisscontact.org)
STEPS and ORGANISATION

1. Define the detailed objective of the SNA:
   - General Question: analysis of linkages is understood as analysis of information flows and collaborations, in principle and – in comparison with them – in relation to tourism and/or sustainability.
   - Geographical scope and limits of the analysis (Switzerland-wide, including relevant references to actors and networks abroad, e.g., if necessary, exemplarily extended to a country in which SECO supports tourism development),
   - Identification of representative actors and number of interview partners (as small as possible, as far as necessary).

2. Define more specific Research Questions: Supporting the overall objective to analyze the flow of information and collaboration between different actors within the Swiss tourism industry, research could, e.g., focus the SNA on the following research questions:
   - Which tourism actors are already exchanging and networking with each other in terms of sustainable tourism development, to what extent and on which SDGs?
   - Where does the network show room for improvements in communication, based on possible gaps in links between different actors and/or actor categories?

3. Record linkages between individual actors, as well as between and within individual initiatives.
   - Use existing analyses, databases, membership structures, common projects etc. to collect existing knowledge of functional linkages between entities.
   - Additional data needed on existing initiatives and relationships between actors should be collected through targeted interviews.

4. Visualisation: The SNA follows the graph theory approach, e.g., the studying of networks, whereas a network is composed of stakeholders (“nodes”) and the interactions between them (“edges”).
   The importance of any given stakeholder within the network is calculated automatically, based on numeric data input. For its analysis, so-called “centrality measures” quantify the capacity of a specific stakeholder to influence, or be influenced by, another stakeholder.

### Betweenness centrality and closeness centrality as key algorithms for this SNA

<table>
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<tr>
<td>Betweenness centrality</td>
<td>How often a node lies on the shortest path between two nodes.</td>
<td><strong>Measure of potential influence</strong>: Nodes with a high betweenness centrality lie on communication paths and can influence information flows.</td>
<td>Expressed as the size of nodes (size of the dots that stand for a specific stakeholder)</td>
<td>Used to identify stakeholders that have an important function in multiplying the flow of information and knowledge (outreach).</td>
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<tr>
<td>Closeness centrality</td>
<td>Shortest paths between all nodes. Assigns each node a score based on its sum of shortest paths.</td>
<td><strong>Measure of access efficiency</strong>: An actor with strong closeness centrality can spread information quickly.</td>
<td>Expressed in the (more central) position of the nodes in the networks.</td>
<td>Used to identify stakeholders with rapid communication access (efficiency).</td>
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Source: Brandes et al., 2016; Betweenness Centrality, 2016; Golbeck, 2013; Social Network Analysis, 2020; altered.
LEARNINGS from the first SNA for the Swiss tourism industry 2020

The results of the SNA show that

- Umbrella organizations generally have a key role. Many of the umbrella organisations have access to information and provide this information from other key players vertically to their members. On the other hand, this also means a potential filter, which prevents direct, diagonal communication.

- Generally, the SNA shows rather weak horizontal communication, the members of umbrella organizations communicate with each other only to a limited degree. Even more, the direct-diagonal-communication (thus, the communication of one umbrella directly to members of another umbrella) is especially weak.

- Individual actors (institutions as well as persons) can have high importance as well. Several individual actors – not being a formal network or umbrella organisation – show high importance. Due to their good communication with different stakeholders, they can play a bridging function to enable horizontal and diagonal communication.

- Only some communication bridges between outgoing and incoming tourism exist.

- A closer look to the different SDGs reveals, that tourism still stands for economic growth more than it is seen as an instrument to achieve partnership, climate action or responsible consumption and production patterns.

- Only a few stakeholders have a rather high communication importance in all SDGs. The Swiss Parks Network, Protected Areas and DMOs in general have a strong function of inter-disciplinary and cross-sectorial networking within their region/destination. This leads to the situation that they more often communicate on a broader variety of issues.

- Partnerships for the Goals (SDG 17) scores last in comparison of the different SDGs. NGOs, education & public sector communicate with relatively higher importance than the tourism sector itself in SDG 17.

- Communication to non-Swiss partners shows different intensity, different importance and often one-directional means (e.g. newsletter) on the part of Swiss stakeholders.

For the outlook and the future further development of the Swiss SDG Tourism Dialogue – and other upcoming structures dealing with sustainable tourism in Switzerland – the following key recommendations could be identified:

- Facilitation of the strengthening of personal relationships between stakeholders with sufficient room and time for informal exchange, relationship, and community building measures.

- Continuing the intensive collaboration with a few key actors of high importance and leverage these stakeholders’ multiplying role.

- At the same time increasing the diversity within the network, e.g., by further strengthening the communication of non-touristic actors such as NGOs, academia and Protected Areas with their important bridging functions.

- Stimulation of new ways and formats of communication that are suitable to overcome existing barriers and filters.

- Stimulation of the communication and exchange between incoming and outgoing touristic stakeholders.

- Support of the visualization of benefits of inter-sectorial cooperation towards more sustainability in tourism.

- Reaching out to the media to mainstream sustainability in tourism higher into the overall tourism-related communication in Switzerland.