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**BIBLIOMETRIC ANALYSIS AS A BASIS FOR RESEARCH ON
SUSTAINABILITY IN TOURISM IN BOSNIA AND HERZEGOVINA**

Sustainable tourism...

- The term sustainable tourism appeared in the late 1980s and became firmly established in all initiatives, tourism policies and tourism strategies.
- The galloping growth of tourism can result to "tourism kills tourism".
- Sustainable tourism requires effective management including appropriate institutions, decision-making rules and policy evaluation and monitoring practices if it is to meet the economic, socio-cultural and environmental dimensions of sustainable development.
- As Mazziotta and Pareto (2013) point out, it is necessary to find an adequate framework for monitoring the sustainable development of tourism, suggesting a composite index.

RESEARCH METODOLOGY

- This study consists of two research parts.
- The first part of the research refers to the literature review with bibliometric analysis using the VOSviewer software.
- In the second part of the research, a quantitative analysis of indicators was performed using the example of BH.
- We created a composite sustainability index that was used as a dependent variable in the regression.



BIBLIOMETRIC ANALYSIS

- First we use the software that shows the citation and productivity of academic works - "Publish or perish".
- Key words :Sustainable tourism, development and sustainability
- Researched period from 2020-2025. year
- The software selected 201 papers that have high citations,
- Then we formatted data in RIS format, which is compatible with VOSwiver
- Out of 201 papers softver recognizes 462 authors and 37 authors with minimal two papers about sustainable tourism.

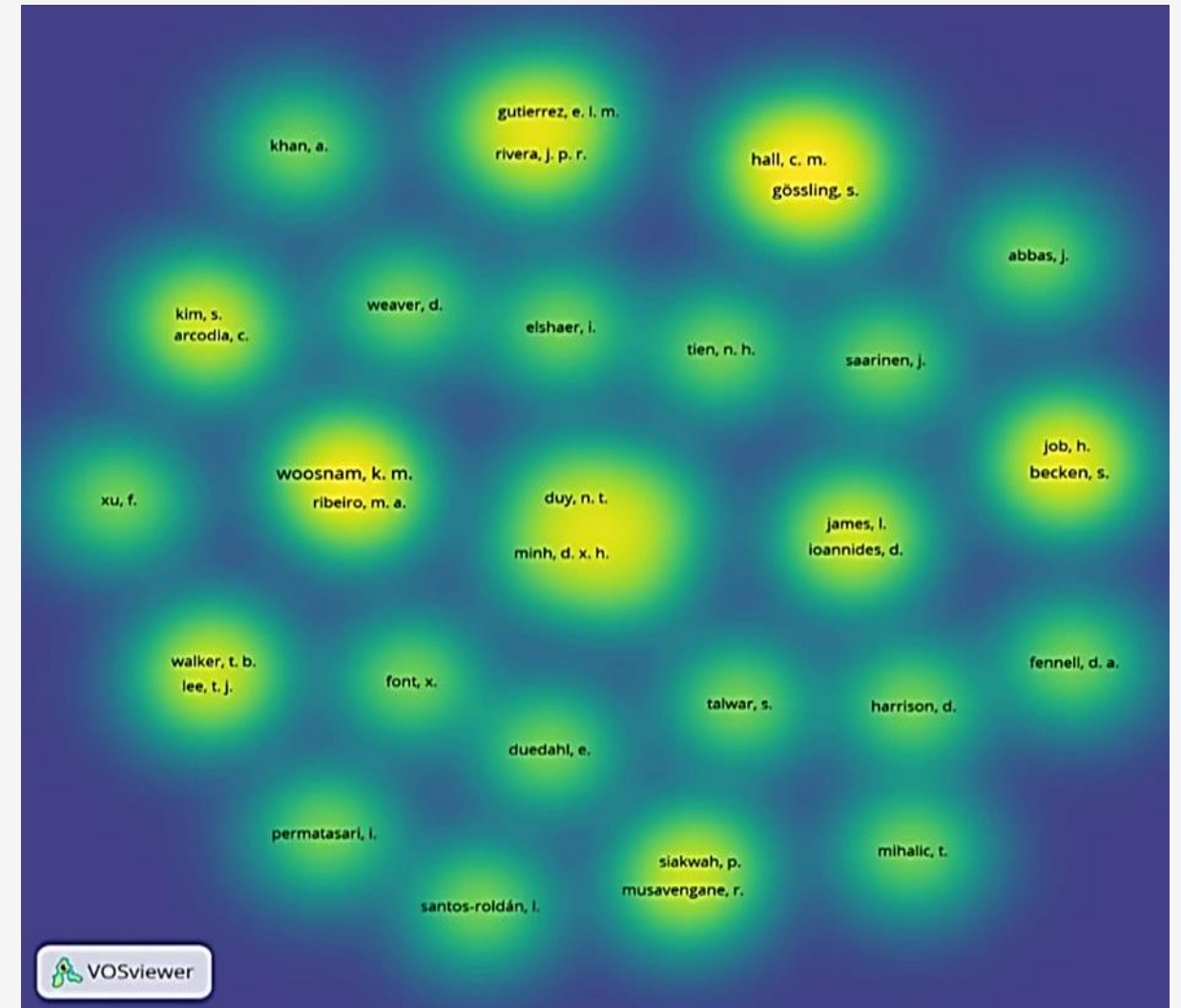
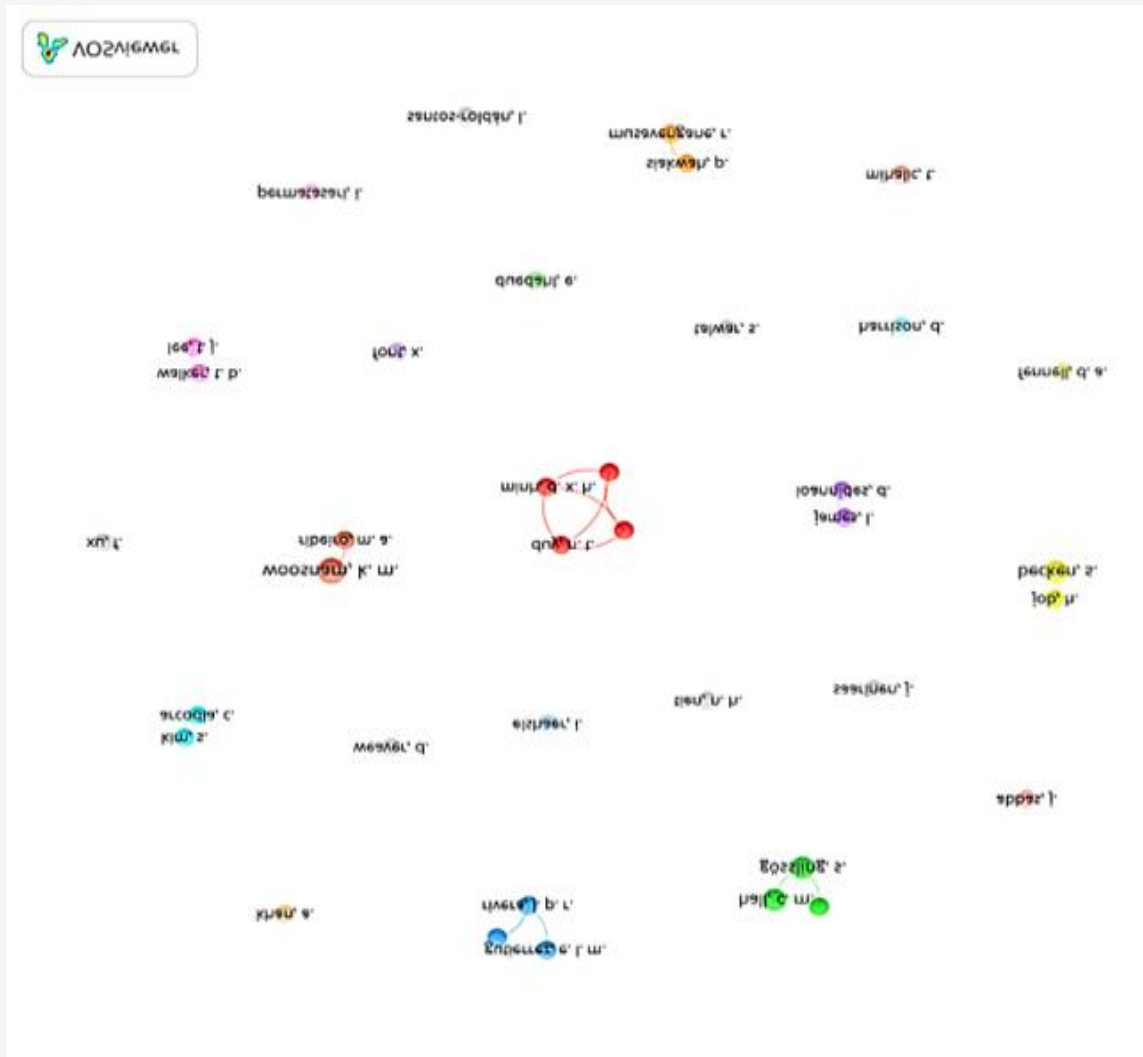


BIBLIOGRAPHICAL ANALYSIS

The citation metrics are presented in the table below.

Publication years	2020-2025.
Citation years	5
Papers (total number of papers)	201
Citations (total number of citations)	21678
Cites/year (average number of citations per year)	4335.60
Cites/paper (total citations/total papers)	108.39
Cites/author (divide citations for each publication by the number of authors)	10448.57
Papers/author (average number of paper per author)	83.95
Authors/paper (average number of authors per publication for a certain author)	3.10
h-index	82
g-index	141

Network map and density map



Key authors....

C. M. Hall – Recognized as one of the most highly cited scholars in sustainable tourism. His work primarily focuses on sustainable development policies, destination management, and the ecological dimensions of tourism.

S. Gössling – Known for his research on sustainable transportation, climate change, and the environmental impacts of tourism.

S. Becken – Concentrates on destination sustainability, energy policy, and climate change in the context of tourism.

D. Ioannides – Specializes in tourism policy, the economic impacts of tourism, and sustainable destination development.

Quantitative analysis

Input data for composite index construction – Bosnia and Herzegovina

Type of Indicator	Year		
Indicators for Social Index	2020	2022	2024
% of employees in tourism of total employed	4.73%	4.78%	4.93%
Salaries in tourism, BAM	596	749	927
Indicators for Economic Index	2020	2022	2024
Number of registered tourism businesses	930	1209	1297
Gross domestic value of tourism in total, %	1.70%	2.26%	2.40%
Indicators for Environmental Index	2020	2022	2024
EPI index	78	102	87
Tourist arrivals	500916	1477371	1935745
Length of stay	2.5	2.2	2.1

Quantitative analysis – composite index

Since the data from the table are in different sizes, it was necessary to standardize the data using the formulas available in the paper. The following table presents the final standardized index values.

Standardize data	2020	2022	2024
Z_Social	-0.88726951	-0.185280485	1.072549999
Z_Economic	-1.12886772	0.35512297	0.773744754
Z_epi	-0.90726471	1.072221928	-0.16495722
Z_composit index	-0.97446732	0.414021471	0.560445844

The arithmetic mean of these three standardized indices gives a composite index of sustainability, for each year individually.

Quantitative analysis- results of regression analysis

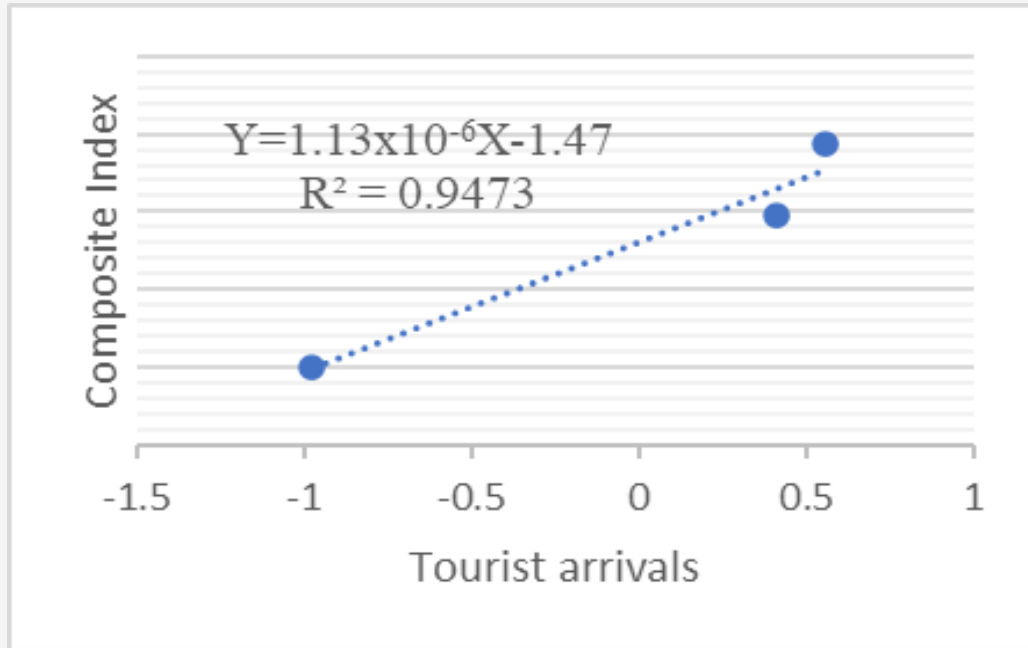
Results of correlation and regression of the relationship between the composite index and the number of tourist arrivals

<i>Regression Statistics</i>	
Multiple R	0.973314397
R Square	0.947340915
Adjusted R Square	0.894681831
Standard Error	0.274901883
Observations	3

Results of correlation and regression of the relationship between the composite index and the average length of overnight stay

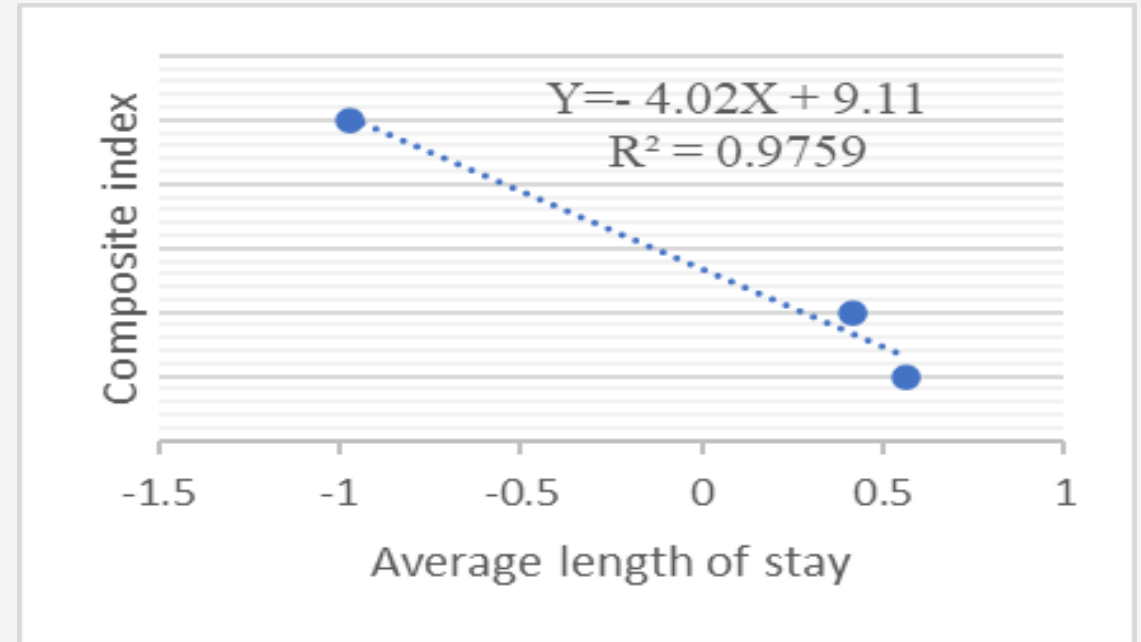
<i>Regression Statistics</i>	
Multiple R	0.987852408
R Square	0.975852381
Adjusted R Square	0.951704761
Standard Error	0.186156508
Observations	3

Composite Index vs Tourist Arrivals



The coefficient of 1.13×10^{-6} indicates that an increase of one tourist arrival would lead to an increase in the composite sustainability index by 0.00000113.

Composite Index vs Average Length of Stay



The second regression equation shows that an increase in the average length of stay would lead to a decrease in the composite sustainability index.

CONCLUSION - Advantages of the research can be summarized as follows

Interdisciplinary approach: By combining bibliometric analysis and econometric modeling, the paper integrates theoretical and empirical insights from the fields of tourism, sustainability, and development.

- **Use of modern software tools:** The application of VOSviewer and Publish or Perish enabled an objective identification of the most relevant authors and publications, thereby increasing the scientific validity of the selected indicators.
- **Development of a composite sustainability index:** Using available data for Bosnia and Herzegovina, a concrete, quantitative indicator was created, which can serve as a basis for policymaking in the field of sustainable tourism.
- **Practical applicability of the results:** The findings can be useful for decision-makers in the tourism sector, providing insight into how tourism flows affect sustainability and what measures should be taken to achieve a balance between development and resource preservation.

THANK YOU !!!

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