

Local Policies and Seasonal Tourist Attractiveness

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ABSTRACT

This paper presents the results of a statistical survey conducted in a region with a strong tourism focus. The survey involved tourists, residents, and business operators, who were asked to identify the region's strengths and weaknesses. The objective is to provide the local administration with useful guidance on the strategies to follow and the measures to implement in order to revitalize the region and increase its appeal to tourists.

Keywords: Tourist demand, seasonal tourism, local strategic, tourist satisfaction survey, analysis of strengths and weakness.

Journal of Economic Literature (JEL) Classification Number : Q50, R11, Z30, Z32, Z38

1. INTRODUCTION

This study proposes a model to support local policies for the revitalization of the historic urban. The goal is to increase the area's appeal while ensuring the protection of environmental and cultural resources. Based on the results of a questionnaire (Romano and Ruberti, 2024) and the model (Romano, Anzilli, Ciurlia, Mastroleo, 2025), the methodology presented identifies the key aspects for the promotion, enhancement, and conservation of the area. Two indicators were used: "Sustainable Development and Territorial Enhancement (SDTE)" and "Quality and Attractiveness of the Historic Urban (QAHU)." The first indicator (SDTE) consists of the following four sub-indicators: "Economic Development and Commerce", "Tourism and Culture", "Infrastructure and Mobility" and "Quality of Life and Public Spaces". The second indicator (QAHU) consists of the following four sub-indicators: "Cultural and Architectural Heritage", "Services and Commercial Activities", "Infrastructure and Mobility" and "Quality of Life and Public Spaces".

The hierarchical structures of the sub-indicators are derived through an evaluation model based on a fuzzy expert system (FES). This is a tool that adapts to the specific characteristics of a territory and, at the same time, manages the inherent ambiguity of responses by aggregating partial or incomplete information. Based on the literature and the results obtained in the case study, it is possible to support local policy in strategic planning for the revitalization of historic urban, protecting cultural and environmental heritage while also promoting sustainable development.

This study is structured as follows: the second section introduces the topic of historic district revitalization; the third section describes the methodology used; in the fourth section, the model is applied to the results of a questionnaire (Romano and Ruberti, 2024); and the fifth section presents the final assessments, highlighting the model's potential and possible future developments.

2. THE REVITALIZATION OF THE AREA

The revitalization of the historic urban aims to identify activities for the socio-cultural and economic promotion of the territory, as well as interventions for the restoration, conservation, and redevelopment of its monuments. In some cases, the historic urban has become the new periphery, resulting in depopulation and marginalization. Therefore, relocation and adaptation measures are necessary to ensure it does not become a context separated from the surrounding territory (Francini et al., 2024). It is of fundamental importance to focus on the specific strengths of each historic urban, with the aim of revitalizing it and transforming it into a place for social gathering and interaction. Consequently, the historic urban is regenerated through the implementation of "citizen-centered" restoration and enhancement initiatives capable of attracting ideas, energy, values, and people (Elmqvist et al., 2013). Furthermore, it is also necessary to consider the input of commercial operators interested in investing in the historic urban by opening retail outlets for local food products and artisan workshops. Another fundamental aspect is to enhance the cultural and landscape heritage by facilitating access and sustainable mobility. It may be useful to support residential development through incentives and tax breaks, as well as to increase opportunities for visits and extended tourist stays. Local policy must take into account the needs of residents, tourists, and economic operators in order to promote the cultural and economic revitalization of the historic urban, as well as its appeal to tourists, by implementing targeted and effective measures. The resulting economic, social, cultural, and tourism benefits offer new commercial, cultural, and hospitality opportunities while enhancing and preserving the historical and architectural heritage. Identifying strengths and weaknesses makes it possible to define and implement the most effective and efficient strategies, including those aimed at increasing visibility and tourist appeal (Rodwell, 2008).

The revitalization of historic urban is a topic extensively addressed in numerous studies. Historic urbans characterized by ancient buildings, narrow streets, and a unique atmosphere are currently undergoing transformations due primarily to overtourism and gentrification (Pollice, 2018; Capocchi et al., 2019; Salmieri, 2024). It is therefore necessary to identify the most effective methodologies for evaluating historic urbans using concrete and up-to-date data (Tiboni et al., 2020; Vinod et al., 2024). The regeneration of historic sites requires the adoption of strategies capable of integrating conservation and transformation, while respecting the historical and cultural value of the areas involved (Pulles et al., 2023). Within the scope of the *Historic Urban Landscape (HUL)* approach, supported by UNESCO, integrated urban heritage management considers various dimensions (cultural, social, economic, and environmental) and proposes a coherent, multidisciplinary, and adaptable system of indicators to ensure the effectiveness of urban policies and sustainable

development without compromising cultural identity (Koyunoğlu and Gülersoy, 2022). This paper therefore proposes a decision-support model (Romano, Anzilli, Ciurlia, Mastroleo, 2025) based on *fuzzy* logic and multi-criteria analysis, aimed at evaluating and comparing urban redevelopment policies (Murano, 2000; Murano et al., 2014). Local authorities must make complex decisions based on heterogeneous criteria and high levels of complexity. For these reasons, traditional models are sometimes not useful. In contrast, the proposed model, when applied to the case study, is useful for managing the uncertainty of responses and evaluating complex projects.

3. METHODOLOGY

In complex decision-making contexts, *fuzzy* logic allows for the management of incomplete, partial, or inconsistent information. Introduced by Lotfi Zadeh in the 1960s (Zadeh, 1965; Zadeh, 1966), *fuzzy* logic extends binary logic (true/false) by allowing for the expression of intermediate degrees of truth through the use of values between 0 and 1. This makes it possible to represent concepts such as “high quality of life,” “moderate accessibility,” or “low attractiveness,” bringing the evaluation process closer to human reasoning.

From a structural standpoint, a *fuzzy* expert system consists of four fundamental elements:

- a) the fuzzification interface transforms the input variables (numeric or qualitative) into *fuzzy* values;
- b) the knowledge base contains the *fuzzy* rules that describe the relationships between the variables;
- c) The inference engine applies the rules of the knowledge base to the fuzzified data, combining the information using fuzzy logical operators (“AND,” “OR,” “NOT”). This process simulates human reasoning and allows for the handling of situations where information is incomplete or contradictory;
- d) The defuzzification interface converts the fuzzy inference result into a numerical value (known as a *crisp* value), which can be interpreted and used to compare alternatives or communicate results.

The choice of defuzzification method can influence the model’s accuracy and sensitivity, especially in the presence of asymmetric membership functions or non-uniform distributions. The generally preferred method is the centroid method, due to its ability to return a balanced value that is representative of the entire evaluation spectrum. *Fuzzy* expert systems can be customized based on the specific characteristics of a given area, making the model more representative of the local context.

In the context of historic district revitalization, the decisions made directly impact citizens’ lives. Their acceptance is therefore essential. *Fuzzy* systems allow for the integration of technical expertise and local knowledge, contributing to the development of more equitable, sustainable, and widely accepted policies. The use of *fuzzy* logic enables the management of the uncertainty and subjectivity typical of qualitative assessments, making the model particularly suitable for complex and geographically specific decision-making contexts (Klir and Yuan, 1995).

The proposed evaluation model is based on the use of a *fuzzy* expert system (FES) for the aggregation and interpretation of complex indicators related to the enhancement of historic urbans. Starting from a previously defined hierarchical structure, the system allows the value of a primary composite indicator to be inferred through a multilevel aggregation process. At the base of the hierarchy are the sub-indicators, which represent observable and measurable variables. These are aggregated into four thematic macro-areas (or *pillars*), which in turn contribute to determining the main indicator.

The evaluation process consists of three main phases:

- 1) fuzzification transforms each sub-indicator into a linguistic variable by assigning membership functions defined based on the nature of the variable and the measurement scale adopted. Membership functions can take various forms (triangular, trapezoidal, or Gaussian) depending on the desired degree of precision and sensitivity;
- 2) fuzzy inference is performed using blocks of fuzzy rules that describe the relationships between the sub-indicators and their respective macro-indicators, or between the latter and the main indicator;
- 3) the defuzzification of the result obtained into a numerical score generally ranging from 0 to 100.

Modifying the inference rules and membership functions allows the model to be adapted to different territorial contexts. Furthermore, the model can also simulate the effects of the actions to be taken, serving as a strategic tool for defining sustainable urban development scenarios.

Local policies must be based on a long-term vision, include the establishment of measurable objectives, the participation of local stakeholders, and the implementation of monitoring and evaluation tools. The proposed model serves as a useful tool for the evaluation and strategic planning of local initiatives. The model is based on two composite indicators, SDTE and QAHU, which are useful for planning and evaluating local interventions. They allow for the observation and measurement of heritage enhancement, increased tourist appeal, and improved urban quality.

The SDTE indicator is structured into the following four sub-indicators: "Economic Development and Commerce", "Tourism and Culture", "Infrastructure and Mobility", "Quality of Life and Public Spaces" (Table 1).

The QAHU indicator is structured into the following four sub-indicators: "Cultural and Architectural Heritage", "Services and Commercial Activities", "Infrastructure and Mobility", "Quality of Life and Public Spaces" (Table 2).

For each of the selected variables, the reference bibliography has been provided. The model considers a total of 34 input variables: 17 variables for each of the two indicators. Note that some variables are used in multiple papers.

Table 1: Input variables for the SDTE indicator

Input variable	Sub-indicator	References
Promoting retail trade in the historic urban	Economic Development and Commerce	Ferrucci (2015), Morano (2000), Vitale (2024)
Encouraging the presence of corporate representative offices	Economic Development and Commerce	Morano (2000)
Promote local products and excellence	Economic Development and Commerce	Cirelli and Nicosia (2013), Ferrucci (2015), Vitale (2024)
Strengthen promotion on the web, social media, and agencies	Economic Development and Commerce	Chica-Olmo (2024), Romano and Ruberti (2024)
Boosting beach tourism	Tourism and Culture	Bandarin and Van Oers (2012), Romano and Ruberti (2024)
Promote cultural tourism	Tourism and Culture	Ferrucci (2015), Morano (2000), Vitale (2024)
Improve signage and cultural wayfinding	Tourism and Culture	Vitale (2024)
Organize guided tours and information points	Tourism and Culture	Ferrucci (2015), Vitale (2024)
Highlight historical and religious buildings	Tourism and Culture	Cirelli and Nicosia (2013), Ferrucci (2015)
Improve connections with neighboring towns and coastal villages	Infrastructure and Mobility	Morano (2000)
Improving urban traffic flow	Infrastructure and Mobility	Cirelli and Nicosia (2013), Morano (2000)
Improve access to the historic urban	Infrastructure and Mobility	Cirelli and Nicosia (2013), Morano (2000)
Expand bike and pedestrian paths	Infrastructure and Mobility	Cirelli and Nicosia (2013)
Closing streets to non-resident traffic	Infrastructure and Mobility	Romano and Ruberti (2024)
Expand initiatives to attract young people	Quality of Life and Public Spaces	Romano and Ruberti (2024)
Aesthetic and architectural renovation of buildings	Quality of Life and Public Spaces	Cirelli and Nicosia (2013), Ferrucci (2015)
Enhancing/creating community spaces/centers	Quality of Life and Public Spaces	Morano (2000)

Table 2: Input variables for the QAHU indicator

Input variable	Sub-indicator	References
Architecture of historic/religious buildings	Cultural and Architectural Heritage	Cirelli and Nicosia (2013), Ferrucci (2015)
State of preservation of monuments	Cultural and Architectural Heritage	Cirelli and Nicosia (2013), Ferrucci (2015)
Accessibility and usability of monuments and other places of interest	Cultural and Architectural Heritage	Cirelli and Nicosia (2013)
Accommodation facilities (hotels, B&Bs, etc.)	Services and Commercial Activities	Romano and Ruberti (2024)
Presence of pubs, restaurants, etc.	Services and Commercial Activities	Morano (2000)
Small retail shops	Services and Commercial Activities	Ferrucci (2015), Morano (2000), Vitale (2024)
Personal services (hairdressers, shoemakers, etc.)	Services and Commercial Activities	Morano (2000)
Value for money of available services	Services and Commercial Activities	Romano and Ruberti (2024)
Connections and accessibility to the historic urban	Infrastructure and Mobility	Cirelli and Nicosia (2013), Morano (2000)
Cycling and pedestrian infrastructure	Infrastructure and Mobility	Cirelli and Nicosia (2013)
Lighting and atmosphere of the historic urban	Infrastructure and Mobility	Cirelli and Nicosia (2013), Ferrucci (2015), Morano (2000)
Tourist information and signage	Infrastructure and Mobility	Vitale (2024)
Attractiveness of the historic urban	Quality of Life and Public Spaces	Cirelli and Nicosia (2013), Ferrucci (2015)
Maintenance/cleanliness of the historic urban	Quality of Life and Public Spaces	Ferrucci (2015)
Housing	Quality of Life and Public Spaces	Cirelli and Nicosia (2013), Ferrucci (2015)
Cultural events	Quality of Life and Public Spaces	Cirelli and Nicosia (2013), Ferrucci (2015), Morano (2000), Vitale (2024)
Social and recreational spaces	Quality of Life and Public Spaces	Cirelli and Nicosia (2013), Morano (2000)

4. CASE STUDY

The objective is to verify the model's effectiveness in supporting strategic decisions through the analysis and subsequent processing of the collected data.

The model uses data collected during a survey conducted as part of a research project dedicated to the revitalization of the historic urban (Romano and Ruberti, 2024). The research project aimed to analyze the potential for attraction and development of the historic urban of the city of Matino, located in the province of Lecce, Italy. As part of this project, approximately 150 local lodging facilities were involved; they were asked to distribute an anonymous paper questionnaire to tourists staying at their facilities between July and September 2021. Initially, tourists were classified based on their age, educational background, occupation, and place of origin. Subsequently, aspects such as length of stay, reason for the visit, and type of accommodation were considered. Finally, tourists evaluated the historic urban, identified its strengths and weaknesses, and provided their suggestions.

Analysis of the results obtained allows for an assessment of the effectiveness of the revitalization efforts in the historic urban. The questionnaire data were aggregated according to the two macro-indicators, SDTE and QAHU. The following figures show the scores obtained for each sub-indicator, the comparison between the two macro-indicators, and the differing opinions among the various age groups of tourists, providing useful insights for future interventions.

Figure 1 presents the evaluation of the SDTE sub-indicators. The results indicate strong performance in "Tourism and Culture" and "Quality of Life and Public Spaces." Conversely, the "Infrastructure and Mobility" sub-indicator shows lower scores, highlighting a critical area requiring targeted interventions.

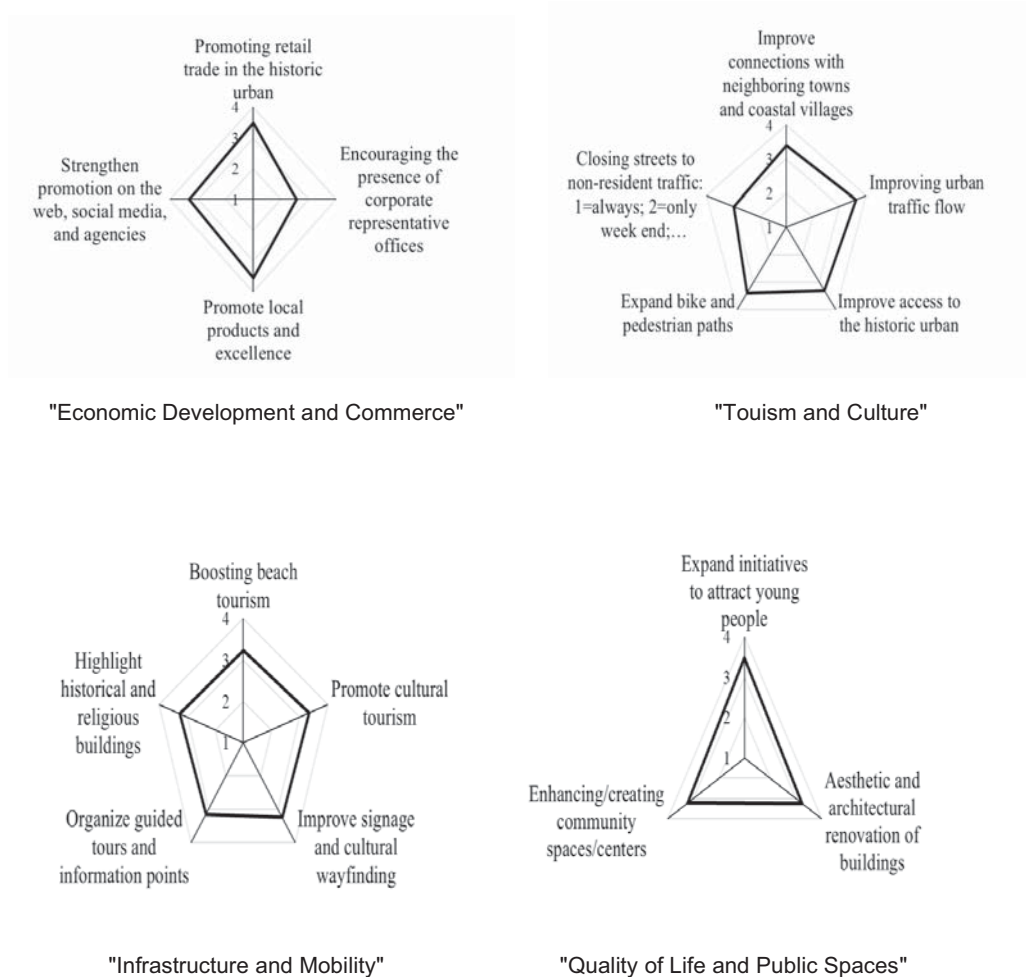


Figure 1 Radar charts of the SDTE sub-indicators.

Figure 2 shows the assessment of the QAHU sub-indicators. The results indicate a high rating for the “Cultural and Architectural Heritage” sub-indicator. However, issues have been identified in the “Services and Commercial Activities” and “Infrastructure and Mobility” sub-indicators.

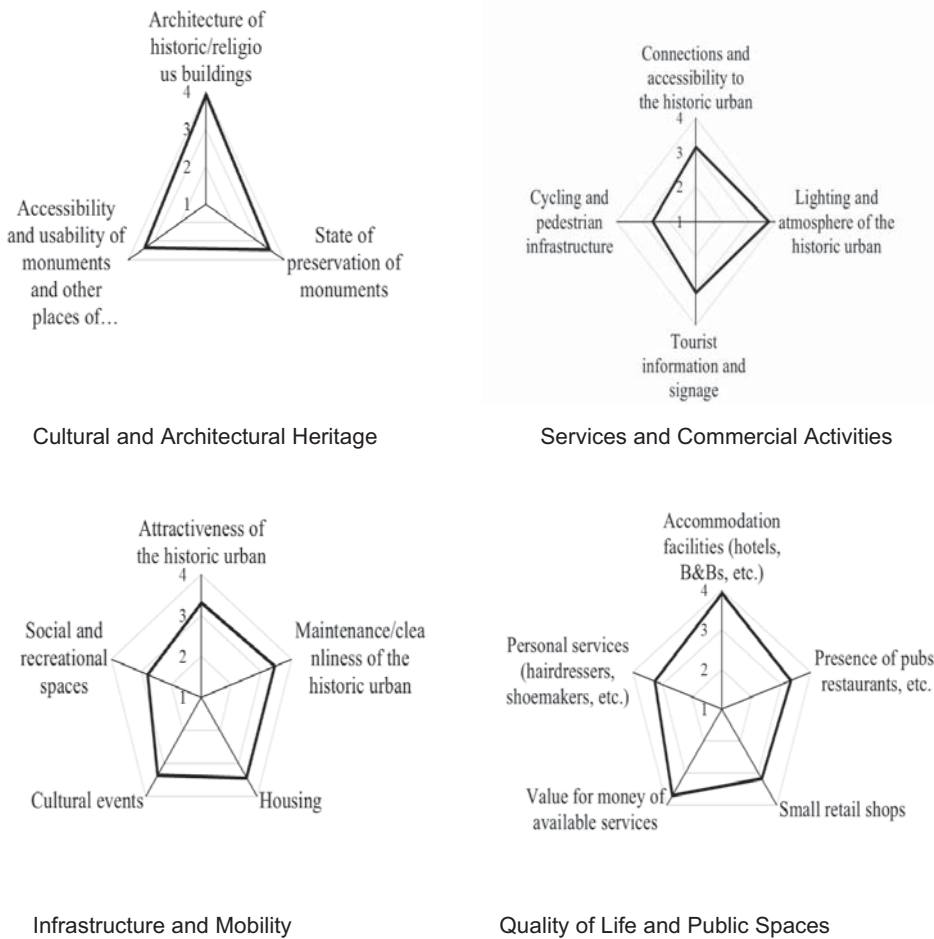


Figure 2 Radar charts of the QAHU sub-indicators.

Figure 3 shows a comparison between the two macro-indicators, SDTE and QAHU. The results indicate a prevalence of the former indicator, suggesting that territorial enhancement policies are perceived as more effective than the functional quality of the historic urban. This difference may indicate that local policies focus more on infrastructure and promotional aspects than on interventions in the historic urban fabric.

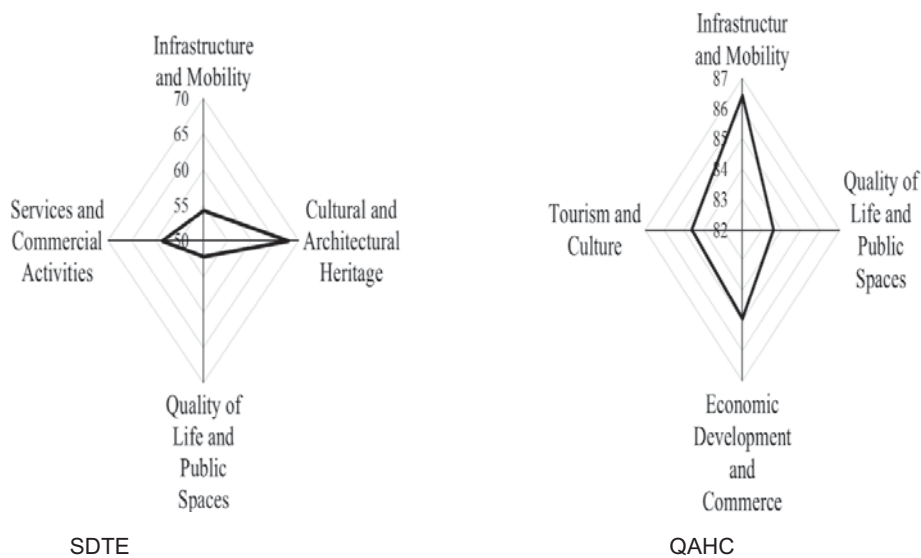


Figure 3 Radar charts of the macro-indicators.

Figure 4 shows the overall score of the two macro-indicators on a scale of [0, 100]. Both fall within the medium-high range, confirming a positive assessment. This data highlights the potential for improvement through monitoring the effectiveness of implemented policies and planning future intervention strategies.

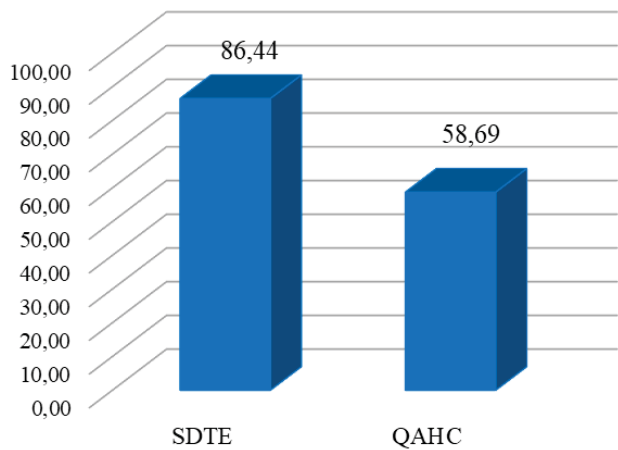


Figure 4. Overall score for the macro indicators on a scale of [0, 100].

Finally, the analysis by tourist age group indicates significant differences in the perception of the two indicators (Figure 5). Tourists aged 18 to 34 report greater concerns, particularly regarding the QAHU indicator. In contrast, tourists aged 45 to 64 exhibit a higher level of satisfaction. Therefore, the model suggests the need to expand the range of services and activities aimed at younger people. These measures are useful for increasing the satisfaction levels of young tourists and encouraging them to spend more time in the historic urban.

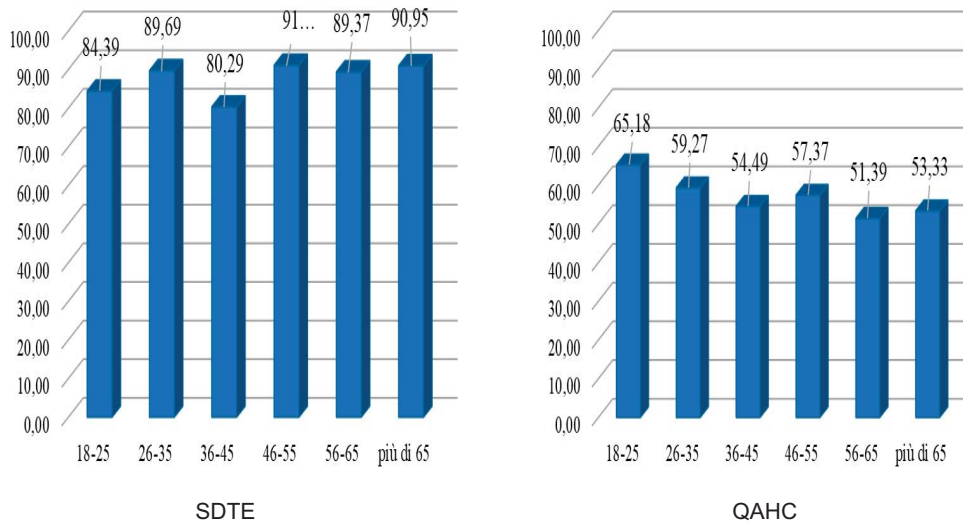


Figure 5. Partial scores of macro-indicators by age group on a scale of [0, 100]

5. DISCUSSION AND CONCLUSION

The revitalization of historic urban represents a strategic challenge for local governments. They must balance heritage conservation objectives with the needs of economic development, social cohesion, and environmental sustainability. The formulation of effective policies requires tools capable of addressing the complexity of urban phenomena, integrating qualitative and quantitative dimensions, and taking into account the needs expressed by the local community. Public decisions must be based on flexible models, adaptable to the specific context and capable of providing an integrated and dynamic view of the territory. The proposed model offers an innovative approach to the assessment and planning of interventions in historic urbans. Its structure, comprising two macro-indicators—“Sustainable Development and Territorial Enhancement (SDTE)” and “Quality and Attractiveness of the Historic Urban (QAHU)” —allows for a synthesis of the urban system’s overall performance. The analysis of the sub-indicators makes it possible to identify the strategic areas requiring intervention. Applying the model to the case study confirmed the validity of the approach, highlighting the differing perceptions of the respondents and the main critical issues in the historic urban. The results obtained made it possible to identify strengths and weaknesses, indicating priorities for action to the local

administration. In the case of the SDTE indicator, the sub-indicators “Tourism and Culture” and “Quality of Life and Public Spaces” represent areas where local policies appear to have achieved positive results. Conversely, for “Infrastructure and Mobility” and “Economic Development and Commerce,” structural issues requiring targeted interventions are evident. Similarly, for the QAHU indicator, the “Cultural and Architectural Heritage” sub-indicator shows a good level, while the services and commercial activities and the mobility remain insufficient. The findings suggest the need to adopt local policies that ensure the preservation of heritage, promote accessibility, economic vitality, and the usability of public spaces. The model can be easily adapted to other geographical contexts, thanks to its modular structure and the ability to customize inference rules and membership functions. The ability to use geospatial data, the availability of monitoring tools, and artificial intelligence techniques can enhance the model's capabilities, providing more dynamic, transparent, and sustainability-oriented decision-making tools. The *fuzzy* model is therefore an assessment support tool capable of increasing cohesion between local government and citizens by implementing shared strategies for territorial revitalization.

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