

Pathways for the social impact of research in Barcelona's tourism policy

Alba Viana-Lora and Marta Nel-lo-Andreu

Abstract

Purpose – This paper aims to analyse Barcelona City Council's tourism policy documents to detect how, through the influence of research, different pathways are produced to achieve social impact.

Design/methodology/approach – Using the case study approach, a qualitative content analysis is applied to review 31 tourism policy documents of Barcelona City Council.

Findings – The results show that the influence of tourism research on Barcelona City Council's policy documents occurs through the following pathways that drive potential social impact: the development of shared research programmes, joint projects, the creation of information exchange platforms, support for academia, the creation of debates, the founding of institutes, the referencing of scientific articles and studies commissioned directly by the City Council from higher education bodies for implementation in the city.

Originality/value – The originality of this paper is to highlight the social relevance of research and to contribute to raising awareness among researchers. The social impact of research is an under-explored topic in the field of tourism. Moreover, there is little research that conducts this analysis through policy documents.

Keywords Tourism, Social impact of research, Assessment, Policy, Barcelona

Paper type Case study

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Received 8 July 2022
Revised 28 November 2022
27 January 2023
3 April 2023
Accepted 25 April 2023

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This publication is part of the R+D+i project ADAPTOUR (contract number PID2020-112525RB-I00 and PRE2018-085470) funded by MCIN/AEI/10.13039/501100011033, the European Social Fund (ESF) and the Department of Research and Universities of the Catalan Government (2017SGR22).

1. Introduction

Originally, scientific impact was positioned as the most effective way to identify the highest-quality research (Reale et al., 2018), directly linking scientific quality with social benefits (Bornmann, 2013). This relationship is not always the case, with high-quality scientific research that has not produced benefits for society (Bornmann, 2012; Smith, 2001) and even a moderately negative correlation between societal output and scientific impact (Van der Weijden, Verbree, & Van Den Besselaar, 2012).

Science has evolved from a theoretical-centred perspective to the pursuit of applied research (Hill, 2016). In this new era of science, the focus is on research that solves societal questions of interest (Lauronen, 2020) and whose application produces changes in society (Samuel & Derrick, 2015). The social impact of research has therefore become the great challenge for academics (Lauronen, 2020). Interest in this relatively new concept is just over a decade old (Viana-Lora & Nel-lo-Andreu, 2021). Flecha (2018) identifies this impact as the change that has occurred in society following the publication and transfer of research results. These changes are the result of the efforts made by researchers (Spaapen & Van Drooge, 2011). For Reale et al. (2018), it is the transfer of the research result to a concrete policy.

The establishment of social criteria in research funding calls can contribute to the achievement of minimum social objectives (Cunha, Ferreira, Araújo, & Ares, 2012) and to researchers' efforts to identify social issues in their research proposals. It is an opportunity

to raise researchers' awareness of the importance of social impact (Lima & Wood, 2014; Lauronen, 2020). Social goals can be set in line with the sustainable development goals set by the UN (Viana-Lora & Nel-lo-Andreu, 2020). These goals identify global social problems, and by addressing them at the outset of the research, the social purpose of the proposal is clarified (Spaapen & Van Drooge, 2011).

The interest in research that generates social benefits in turn motivates the search for a system of evaluation of science that detects its social impact (Lauronen, 2020). This evaluation is understood as the tool that identifies the social consequences of planned interventions produced after the development of research (Vanclay, 2003; Ahmadvand & Karami, 2017). Funding agencies are the main stakeholders in this evaluation, as they seek to justify how money spent on research improves people's lives (Holbrook & Frodeman, 2011).

The limitations in assessing the social impact of research found in the literature (Viana-Lora & Nel-lo-Andreu, 2021) invite further research on this topic. To the authors' knowledge, there is no article that evaluates the social impact of research on local tourism policy. Therefore, this article aims to analyse Barcelona City Council's tourism policy documents to detect how the influence of research can produce different pathways to achieving social impact. It is important to analyse the influence of research on public tourism policies because, never before in history, has there been such an important tourism development. Tourism not only generates positive impacts; it also creates conflicts and negative externalities for the local population and the environment, so cities need to take action. One of the key challenges of urban tourism governance is balancing the needs of different stakeholders (Romão, Domènech, & Nijkamp, 2021). Barcelona is a perfect city to use as a case study for the search for a governance model for urban tourism management that involves stakeholders (Romão et al., 2021). To achieve effective governance in urban tourism, it is essential to establish a collaborative and participatory decision-making process. This process should involve a variety of stakeholders, including representatives from the tourism industry, local residents, government entities and community organisations (Wray, 2013). The stakeholders should be involved in identifying the challenges and opportunities of tourism in the destination as well as in the development of strategies to address these issues (Lalicic & Önder, 2018). Higher education institutions can play a key role in this governance, as they have the capacity to provide expertise, conduct research and establish partnerships with the various stakeholders in the city's tourism development (Jamal & Getz, 1995). Researchers can produce knowledge and critically analyse the challenges and opportunities in urban tourism management (Ashworth & Page, 2011). This research can provide valuable information to policymakers and tourism industry stakeholders on best practices, innovative strategies and solutions to existing problems. The rest of the paper is structured as follows. Section 2 conducts a literature review on the social impact of research in policy documents. Section 3 explains the method used in the analysis. Section 4 shows the results obtained. Section 5 provides a discussion of the study. Section 6 explains the conclusions of the study.

2. Literature review: the social impact of research in policy papers

Urban tourism destination governance has evolved significantly over the last few decades. In the past, the management of urban tourism was the responsibility of local governments and tourism authorities, which focused mainly on tourism promotion and infrastructure development. Today, the governance of urban tourism destinations has become more complex and multifaceted (Iovitu, Radulescu, & Dociu, 2013; Blázquez-Salom, Blanco-Romero, Vera-Rebollo, & Ivars-Baidal, 2019). The main actors involved in urban tourism management include not only local governments and tourism authorities but also tourism businesses, higher education institutions, non-profit organisations, local residents and tourists (Romão et al., 2021). This governance has become more oriented towards

sustainability and citizen participation (Timur & Getz, 2008). Urban planning strategies that seek to balance the needs and desires of tourists and local residents have been implemented, and responsible tourism practices that minimise the environmental and socio-economic impact of tourism have been adopted (Meadowcroft, 2004). While there are challenges to the involvement of universities in the governance of urban tourism, their contributions are essential to ensuring sustainable and responsible development of this important economic activity. One planning tool for destination managers is the implementation of policies. It is necessary to detect how policymakers use scientific evidence to address social problems (Reale et al., 2018) and how research influences those policies. There is no single way to benefit society through research (Ozanne, Davis, & Ekpo, 2022). It is interesting to identify these impact pathways, as they are the ones that researchers should take to enhance the social impact of their research (Muhonen, Benneworth, & Olmos-Peñuela, 2020).

The contribution of research to policy is found at all scales: local, regional, national or European (Cunha et al., 2012), through policy development or review (Bornmann, 2012; Alla, Hall, Whiteford, Head, & Meurk, 2017; Chams, Guesmi, & Gil, 2020; Sigurðarson, 2020), the generation of policy briefs or treatment guidelines (De Jong, Barker, Cox, Sveinsdottir, & Van den Besselaar, 2014; Ozanne et al., 2017), the creation of policy committees (Smith, 2001; Ozanne et al., 2017), public debates (Bornmann, 2012) or the foundation of networks of policymakers (Ozanne et al., 2017).

The European Union has shown interest in research that generates this type of impact and has added the contribution of research to EU policies as an impact to be taken into account in research funding since its Fifth Framework Programme (Holbrook & Frodeman, 2011; Bornmann, 2013). Other bodies, such as the Research Excellence Framework (REF), which is responsible for assessing UK research, identify the impacts of research on policy and guidelines through scientific citations in policy documents (Hanna, Gating, Boyd, Robb, & Jones, 2020). These citations are an interesting source of data and show the research-policy relationship (Bornmann, Haunschild, & Marx, 2016).

This impact could be direct (Alla et al., 2017; Van der Weijden et al., 2012), as is the case for research that, motivated by the resolution of social problems, seeks to formulate policies and measures that solve these problems (Tellado, Lepori, & Morla-Folch, 2020). An example would be the research on Judith Butler's gender performativity theory, which sought political, legal and social recognition of LGBTQ+ people and managed to impact policies and organisations, influencing the development of laws on LGBTQ+ rights (Fotaki, 2021). This impact could also be indirect (Alla et al., 2017; Van der Weijden et al., 2012), where there has been a social impact that was not intended as a research objective but has occurred as a by-product of the research. In the research by Chams et al. (2020), assessing the social impact of research on rice cultivation in the Ebro Delta (Spain) and identifying four national decrees and one European law derived from research on the subject, it is observed how indirectly the cost of processing and the value of by-products in the different stages of rice processing have been modified.

Other research on the social impact of science has also focused on assessing the policy environment. Molas-Gallart and Tang (2011) measured the social impact of BRASS, a research centre at Cardiff University, and detected assemblies, recommendations and policy implementation on low carbon and ecological footprints. Esko and Tuunainen (2019) evaluated the impact of a Finnish research group and demonstrated how researchers created opportunities to alter the understanding of regional differentiation in the city of Helsinki, contributing to urban policy change in the city. Bornmann et al. (2016) analyse the impact of climate change research in policy documents extracted from the Dimensions database and find that only 1.2% of the documents feature mentions of scientific articles. This lack of research citations in policy documents is also detected by Tonetti (2019) in the

field of oral health. [Kale, Siravuri, Alhoori, and Papka \(2017\)](#) seek to predict the likelihood of an article being cited in public policy through the use of random forest classification.

Analysing the social impact of tourism research is more complex than in other fields of study because the particularities of the tourism industry make knowledge sharing more difficult. It is a highly fragmented seasonal sector with a greater presence of small businesses ([Cooper, 2015](#)), so tourism research has not focused on practice-based research and knowledge sharing ([Duxbury, Bakas, & Pato de Carvalho, 2021](#)). Researchers focus on writing scientific articles, which does not seem to be the most appropriate means of transferring knowledge to policymakers ([Duxbury et al., 2021](#)). City-university collaboration is necessary to strengthen city tourism through the skills and resources of the university ([Silinevica, 2015](#)). This collaboration is based on a dialogue process that will involve the population and enrich the opinions of stakeholders ([Muhonen et al., 2020](#)). Thus, the university will not only work as a knowledge generator but also as a project partner in which all stakeholders are involved ([Olsson, Bernhard, Arvemo, & Snis, 2020](#)). City-university collaboration creates bridges for knowledge transfer and develops links to build shared knowledge bases ([Muhonen et al., 2020](#)). This article aims to address this research gap and raise awareness among tourism researchers of the importance of generating societal benefits through science and its application in policy.

3. Research design

3.1 Study area

This article uses the case study approach, more specifically the city of Barcelona, to analyse the influence of tourism research on policy documents. For the purpose of this analysis, a policy document is understood as any document published by destination managers to develop or inform a tourism policy. Nowadays, the case study seems to be the best option to measure the social impact of science ([Tahamtan & Bornmann, 2020](#); [De Jong et al., 2014](#); [Bornmann, 2012](#)) and the most widely used ([Bornmann & Marx, 2014](#)). This approach is the one used by the REF to evaluate research ([Hanna et al., 2020](#); [Sivertsen & Meijer, 2020](#)). The case study allows us to present multiple information with a high degree of complexity ([Wilsdon et al., 2015](#)), providing a complete picture of all social impacts ([Bornmann, 2013](#)). At the same time, it enables its presentation in an appropriate and understandable way for all stakeholders ([Bornmann, Haunschild, & Adams, 2019](#)).

Barcelona is the capital of the autonomous community of Catalonia, located in northeastern Spain, and is one of the most populated cities in Europe ([Camps-Calvet, Langemeyer, Calvet-Mir, & Gómez-Baggethun, 2016](#)). In the field of tourism, Barcelona is considered a benchmark for international tourism, with a strong tourism brand envied by many destinations ([Datzira-Masip & Poluzzi, 2014](#)). It is one of the largest urban tourism destinations in the world ([Romão et al., 2021](#)), with 7.3 million travellers by 2022 ([INE, 2022](#)). Its growth has been continuous except for the financial crisis of 2008 ([Marine-Roig & Clavé, 2015](#)) and the current COVID-19 health crisis, making it the city with the highest international tourism in Spain ([INE, 2022](#)). The economic impact of tourism on the city is unquestionable, with a tourist GDP of 12% ([Jutglà, 2019](#)). In 2019, it was, after Paris, the second most visited European city according to accommodation bookings made through Airbnb, Booking, Expedia and TripAdvisor ([EUROSTAT, 2021](#)). In addition, Barcelona is the fourth city in the world in terms of congress organisation and the first according to the number of attendees ([ICCA, 2020](#)).

The city transport infrastructure is one of the factors which has contributed to the development of the tourism. The port of Barcelona is the second most important port in Europe in terms of cruise calls and the third in terms of embarkation and disembarkation ([Vayá, Garcia, Murillo, Romani, & Suriñach, 2018](#)). Its airport welcomed more than 50 million passengers in 2019, ranking sixth in Europe in terms of passenger traffic ([AENA, 2021](#)).

The high-speed train links the city with France (Rico et al., 2019), which is positioned as the main tourist-sending country for Barcelona according to hotel demand in 2021 (Ajuntament de Barcelona, 2021).

Its rich heritage is an attraction for millions of tourists. It has new buildings declared World Heritage Sites (Marine-Roig & Clavé, 2015), the most visited being the Sagrada Família, with 4.7 million visits in 2019 (OTB, 2020). Barcelona also has tourist attractions such as the Boqueria market, which allows tourists to feel like local citizens and identify their identity codes through the consumption of traditional or agricultural products of the city (Dimitrovski & Crespi Vallbona, 2018). The use of the urban environment for tourism generates political debates and social movements against tourist overcrowding (Martins, 2018). Over-tourism has led to social conflicts such as protests over the lack of affordable housing, the touristification of local neighbourhoods, gentrification and the overcrowding of public spaces, causing effects that affect the quality of life in their neighbourhoods, security, privacy and even local identity (Elorrieta, Cerdan Schwitzguébel, & Torres-Delgado, 2022; Garay-Tamajón, Lladós-Masllorens, Meseguer-Artola, & Morales-Pérez, 2022; Wilson, Garay-Tamajón, & Morales-Pérez, 2022; Bauza Martorell, 2020; Lambea Llop, 2017; Blázquez-Salom et al., 2019; Richards, Brown, & Dilettuso, 2020). To address this issue, more sustainable and responsible planning is required to minimise the negative impact of tourism activity. Barcelona was the first city to regulate short-term rentals, even halting licences in the period from 2015 to 2017 (Wilson et al., 2022; Lambea Llop, 2017). To involve local actors in the planning and management of urban tourism, Barcelona City Council created the Tourism and City Council in 2015 (Romão et al., 2021). This casuistry motivates the choice of this city as a case study, since there is a need to develop tourism policies to solve this social problem, and from our perspective, research plays a fundamental role.

3.2 Data collection and data analysis

The social impact of the research is assessed through interviews, surveys, social media, communication methodology and productive interactions (Viana-Lora & Nel-lo-Andreu, 2021). This research used qualitative content analysis to study the documentation, as it is considered the most obvious way to highlight the influence of research on tourism policy to date. Furthermore, this technique is used to identify the information of interest within a particular phenomenon and brings a wider range of knowledge to the context of study (Downe-Wamboldt, 1992). It has several benefits, such as replicability, analytical flexibility and application at different levels of analysis (Camprubí & Coromina, 2016). This technique has already been successfully tested in policy documents in the field of tourism (Santos-Lacueva, Clavé, & Saladié, 2017; Heslinga, Groote, & Vanclay, 2018). To increase the reliability of the analysis, all documents were read by two researchers and then pooled to determine the categories and subcategories of analysis. Content analysis consists of three phases: preparation, organisation and reporting (Elo et al., 2014).

In the preparation phase, the unit of analysis is selected, and the documents are extracted. In this case study, the unit of analysis is the tourism policy of Barcelona City Council. To extract the documents, a search for official tourism policy documents of the city of Barcelona was carried out. The city council, advocating transparency in management, makes these documents available to the public on its website. The criteria for inclusion were official policy documents dealing with tourism in Barcelona in the period 2010–2022. A total of 31 documents were downloaded for this analysis and are listed in Table 1.

In the organisation phase, the information is analysed to determine whether certain themes occur, and the data is categorised and coded. The initial analysis involved a thorough reading of the documents with the aim of extracting fragments of the text that were linked to scientific research in tourism. From the data extracted, the main category of social impact pathways was developed, with the following subcategories:

Table 1 Documents analysed

<i>Plan</i>	<i>Year</i>	<i>Document</i>
Strategic tourism plan of the city of Barcelona 2010–2015	2010	1. Strategic tourism plan of the city of Barcelona. Promotion area
		2. Strategic tourism plan of the city of Barcelona. Tourism and city area
		3. Strategic tourism plan of the city of Barcelona. Strategic proposal
		4. Strategic tourism plan of the city of Barcelona. Government measure
	2013	5. Territorial deconcentration of tourist activity. Government measure
	2015	6. Barcelona, city and tourism. Dialogue for sustainable tourism
		7. Barcelona, city and tourism. Annex
		8. Barcelona, city and tourism. Executive summary
		9. Promotion of the participatory process on the Barcelona tourism model. Government measure
		10. Strategic tourism plan of the city of Barcelona. Evaluation of the 2010–2015 action program
		11. Internal operating regulations of the Tourism and City Council
2016		12. Barcelona tourist mobility strategy
Barcelona 2020 strategic tourism plan	2017	13. Barcelona tourist mobility strategy. Annex 1
		14. Barcelona tourist mobility strategy. Annex 2
	15. Barcelona tourist mobility strategy. Annex 3	
	16. Barcelona tourist mobility strategy. Government measure	
	17. Tourism 2020 Barcelona. A collective strategy for sustainable tourism	
	18. Barcelona 2020 Strategic tourism plan. Strategic diagnosis	
	19. Strategic tourism plan 2020. Action programs	
	20. Strategic tourism plan 2020. Executive summary	
	2017	21. Regulation of citizen participation
	2018	22. Territorial tourism management strategy. Government measure
2019	23. Environmental externalities of tourism in the city of Barcelona	
	24. Environmental externalities of tourism in the city of Barcelona. Executive summary	
2020	25. Situation, characteristics and effects of work in the tourism sector in the city of Barcelona	
	26. CTiC activity report	
2020	27. Creation of new imaginaries and content to improve mobility and tourism sustainability	
2021	28. Culture and creative industry as a factor in the transformation of the visitor's economy	
	29. Tourism marketing strategy. CTiC presentation	
2022	30. Tourism marketing strategy. Presentation report: EMTDB diagnosis	
	31. Evaluation of the 2020 strategic tourism plan	

Source: Authors' own elaboration

- shared research programme;
- development of research project;
- creation of information platforms;
- supporting research communities;
- creation of debates;
- creation of research institutes;
- scientific citations; and
- scientific studies commissioned by Barcelona City Council.

The documents were re-read to gain a deeper understanding of the documents and to be able to code the information into the established subcategories.

The reporting phase describing the results that form part of the content of the subcategories is presented in the following results section.

4. Results

In total, including the annexes, 31 policy documents were selected for analysis. The annexes were included because they included relevant information on studies carried out by different universities, the use of surveys or the methodologies used. Documents related

to Barcelona's strategic tourism planning were analysed. The documents have been divided according to the two strategic plans that the city has had during the period analysed: the strategic tourism plan for the City of Barcelona 2010–2015 and the strategic tourism plan 2020.

The strategic tourism plan for the City of Barcelona 2010–2015 was presented in 2010 and is the first record of the local government's measures in the field of tourism. With the 2015 horizon, its objective was to improve tourism activity and the fit of tourism in the city with four lines of action: 1. The territorial deconcentration of tourism activity, 2. the new governance of tourism in the framework of the city and its territorial environment, 3. the generation of complicity with society and institutions and 4. the leadership and competitive improvement of the destination and tourism-related activities. Therefore, the documents analyzed in this plan are 11: four of them correspond to the General Plan published in 2010, one is a government measure from 2013, five were published in 2015 and deal with the lines of action and monitoring of the plan, and the last one from 2016 is about the internal operating regulations of the plan.

In 2017, the Strategic Plan for Tourism 2020 was presented, the purpose of which was to design instruments and mechanisms for new sustainable future scenarios, increasing wealth and guaranteeing a social return. The five areas of application were: 1. governance, 2. tourism management, 3. territorial strategy, 4. work and business and 5. promotion and marketing. Documents of the plan are incorporated every year until the publication of its evaluation in 2022. A total of 20 documents were analysed in this plan.

This study found a university collaboration in the city's tourism planning, which seeks to design a more sustainable urban tourism that avoids the problems derived from tourism and its gentrification. The commitment to involve all the agents involved in Barcelona's tourism activity favours "urban co-governance". This terminology advocates a new collaborative multi-stakeholder governance, where cooperation is the key to effective integration (Ye & Liu, 2020). This research has allowed us to detect the existing pathways between the university and Barcelona City Council to achieve social impact. To clarify the results, Table 2 shows the documents analysed and their linkage to each of the eight social impact pathways identified: 1. creation of shared research programmes, 2. development of research projects, 3. creation of information platforms, 4. support to research communities, 5. organisation of and participation in discussion days, 6. establishment of research institutes, 7. citations of scientific articles in policy documents and 8. studies commissioned by the municipality from academic institutions for tourism policy development. The results of this analysis are structured according to these findings.

4.1 Pathways for the social impact of research

Collaboration between academia and stakeholders is a way to achieve social impact. Barcelona City Council maintains collaborations with high-level academic institutions. This section seeks to synthesise these relationships, which will be key to the development of research that will subsequently benefit society. After analysing the documents, it is clear that the city council is interested in deepening its knowledge of university centres to support tourism policies. DOC 18 and 19 seek to strengthen the links between university centres and the administration to enjoy a greater transfer of knowledge in the field of tourism. The latter document also refers to the creation of a *shared research programme* (university–city council) to generate and transfer knowledge that will enable the development of methodological tools and seek joint funding channels for projects that address integrated destination management.

DOC 17 highlights the need to address the strategic challenges of the destination in conjunction with university and R&D&I centres. In this same document and in DOC 18, the

Table 2 Results of the study

PLAN	Year	Document	Pathways for the social impact of research							
			A	B	C	D	E	F	G	H
STRATEGIC TOURISM PLAN OF THE CITY OF BARCELONA 2010–2015	2010	1								
		2			x			x		
		3			x					x
		4			x					x
	2013	5								
		6								
	2015	7								
		8								
		9								
		10			x	x	x	x		
11										
12									x	
BARCELONA 2020 STRATEGIC TOURISM PLAN	2016	13								
		14								
	2017	15								
		16								
		17		x			x			
		18	x						x	
	2018	19	x			x			x	
		20								
	2019	21								
		22								
	2020	23							x	
		24								
	2021	25							x	
		26								
2022	27									
	28					x				
	29							x		
	30									
	31									

Notes: A: shared research programme; B: development of research project; C: creation of information platforms; D: supporting research communities; E: creation of debates; F: creation of research institutes; G: scientific citations; H: scientific studies commissioned by Barcelona City Council

Source: Authors' own elaboration

implementation of a project by the university to count tourists staying in tourist accommodation is reflected.

The *creation of information platforms* is another avenue for collaboration. With the aim of promoting a space that constantly fosters applied research, the capacity to innovate, technology transfer and the dissemination of knowledge, it is proposed, as reflected in DOC 10, the creation of a tourism observatory for the city of Barcelona, a tourism innovation centre and a tourism knowledge portal, with the participation of university centres and research groups. DOC 2, 3 and 4 already included the intention to create such a tourism innovation centre, and DOC 2 mentions the knowledge portal.

DOC 10 and 19 reflect the *support for the RIS3CAT Tourism community*, in which several universities participate, based on innovation to transfer knowledge between universities and companies. The university–city council relationship is also strengthened by promoting research grants and creating tourism chairs (DOC 10).

The *creation of debates* is another form of collaboration; in DOC 28, the city council organises a debate forum with four Catalan universities as participants. It was developed as a collaborative process to establish possible strategies for the city. Taking into account the opinion of the researchers, 12 lines of action were proposed to create new tourist content

and redefine tourism in the city. DOC 10 also includes the participation and generation in various forums on tourism in the academic sphere, such as the conference “Destination Barcelona: history of tourism in the city” with speakers from the universities of Girona, Barcelona, Cardiff (UK), San Sebastián (Chile), Oberta de Catalunya, the Polytechnic of Catalonia and the University School of Maresme. An open day was organised at DOC 17 with a speaker from the University City of London (UK).

The *creation of research institutes* can be a tool that allows constant and fluid collaboration between the city council and the university. DOC 2 includes the creation of the Tourism Institute of Catalonia (IRTUCA) with the collaboration of several universities. This will make it possible to establish a framework for the promotion, leadership and coordination of study, research and the generation of knowledge applied to tourism activity, with the corresponding transfer of technology to companies and territories. Additionally, DOC 10 created the Municipal Advisory Council of Universities of Barcelona to strengthen ties between the university and the private sector.

Citations to scientific policy documents have also been considered as an indicator of the social impact of research. The analysis of the policy documents has made it possible to extract *references to scientific articles* on tourism. Of the 31 documents studied, three mention research articles on tourism:

DOC 23 deals with the environmental externalities of tourism in Barcelona, so the most referenced topics are linked to the carrying capacity of the destination, the environmental impact of tourism activity and cruise tourism. They use this scientific research to understand the impact of the tourism industry on the city and to develop tools to compensate for the externalities of tourism.

DOC 25 is a scientific work commissioned by the city council. It is a study that evaluates work in the tourism sector in Barcelona, developed by the Universitat Pompeu Fabra. It is a document used for the city’s tourism policy, but produced by an academic institution. Therefore, it cites various research on tourism employment related to gender equality, subcontracting or job insecurity. It shows recommendations for the improvement of the city’s sector that should later be implemented by the city government.

DOC 29 gives a presentation on Barcelona’s tourism marketing strategy and quotes a tourism researcher from the University of Manchester.

The use in policy documents of *studies commissioned by Barcelona City Council from university research groups* specialising in tourism is another path of achieving social impact through research. These studies make a fundamental contribution to the understanding and knowledge of tourism in Barcelona. DOC 3 and 4 include the study of the economic impact of tourist activity in the city of Barcelona carried out by the University of Barcelona between 2007 and 2009, which made it possible to quantify this impact and its effects on the metropolitan area, taking the results into consideration in the strategic plan. The University of Girona carried out a similar study, DOC 12, 17 and 18, but for 2013. In DOC 31, the University of Barcelona was commissioned to carry out a study to quantify the impact of tourism on Barcelona’s municipal budget. This same university has also produced reports, DOC 3, such as the feasibility report for a congress held in the city dedicated to urban tourism.

5. Discussion

Universities are embracing transformative change to work with their communities to create real social impact (Morawska-Jancelewicz, 2021). The collaboration will be the first step that will start from a previous planning in which the social objectives will be established. In this case study, the university–city council collaboration seeks a scientific contribution to achieve the objectives set out in Barcelona’s tourism planning strategy. As a result of these

collaborations, the analysis detected eight pathways of social impact. The implementation of joint projects, institutes or research programmes allows the City Council to expose the social problems detected in tourism management and the researchers to design socially relevant scientific solutions. In addition, researchers will be able to participate in tourism policy development committees and provide scientific advice on tourism.

The research results developed through these collaborations and subsequently applied to tourism planning strategies are what we understand as the social impact of the research. This knowledge is used by the City Council to design the city's tourism policy.

This article finds out how public policy responds to conflicts arising from urban tourism with the help of research. We have seen in the DOC 23 study how they seek to detect the externalities of tourism activity and provide tools to mitigate them through the support of scientific research. Citation of scientific papers in policy is considered an indicator to assess the social impact of research (Bornmann et al., 2016); in this study, it has been considered a way to achieve social impact, as citing an article in policy is not a benefit to society, but it does have a potential social impact. The cited articles have a clear influence on the design of the city's tourism strategy. DOC 25 also uses citations from scientific articles to cover the work and business action lines of the 2020 tourism strategic plan. This is a clear example of writing scientific content for policy development. We also find studies commissioned from the university that will make it possible to analyse Barcelona's tourism situation and serve as a support or reference in the tourism strategy.

The Barcelona City Council seeks the involvement of the local population in the management of urban tourism, thus betting on a quadruple helix model that favours dialogue and increases the values of society, its inclusion and democratisation (Morawska-Jancelewicz, 2021). This collaboration and participation of citizens in the research process allows the different points of view involved to be considered, decentralising academic knowledge (Olsson et al., 2020). Spaapen and Van Drooge (2011) found that these interactions between researchers and stakeholders are a precondition for the social impact of research. Therefore, efforts should be made to strengthen the relationship between academia, policymakers and stakeholders. However, the study detects a certain dysfunction between urban tourism research and public policy, perhaps due to a lack of follow-up of city studies by policy makers and a lack of action or recommendations by researchers. City tourism research should seek alternative approaches that are more sustainable and socially equitable.

6. Conclusion

The article assumes the relevance of tourism research for tourism policy development. Aiello et al. (2021) consider the achievement of policy impact as a strategy to promote the social impact of research. In this context, the influence of research on the tourism strategy documents of the city of Barcelona is analysed. The pathways to achieving social impact are highlighted with clear examples of university-city council collaboration that can be applied in other organisations.

This article highlights the importance of research for the advancement and improvement of society. But to do so, researchers need to be aware of the channels that generate social impact to plan their research. This study has attempted to contribute knowledge in this field, which is currently so important but, at the same time, little explored. It proposes a move towards urban co-governance that involves all stakeholders and supports a quadruple helix model of urban tourism. The influence of policy research has been shown to have a real social impact; its application brings benefits to society (Fotaki, 2021; Chams et al., 2020). It is true that the field of study of tourism has certain special characteristics as a changing activity involving a multitude of stakeholders (Akama, 2002). But joint work between science, government and stakeholders, a process of co-creation, is necessary to improve

public policies and give social value to research (Redondo-Sama, Díez-Palomar, Campdepadrós, & Morlà-Folch, 2020). Research should generate solutions that are more practically applicable and easier to implement, which help in the management of tourism in cities through policy (Dredge & Jamal, 2015). While awaiting a new tourism plan for the city of Barcelona, this study invites university–city council collaboration for its design and implementation, aligning research with the needs of the city and favouring the transfer of knowledge to society.

This study has been carried out by analysing the tourism policy documents of a specific city, Barcelona; this limitation makes it impossible to compare with other cities due to the complexity related to the social impact, the singularity of each case study and the particularities of the tourism industry. Moreover, the city of Barcelona has certain competences in terms of tourism regulation, but this might not be the case in cities in other countries. Future research could aim to overcome this limitation by applying the same methodology in different cities and seeking to strengthen and broaden the pathways to generate social impact.

6.1 Theoretical implications

In terms of theoretical implications, this article provides a more comprehensive and in-depth understanding of the pathways to generate social impact with tourism research in the policy of the city of Barcelona. The case study approach allows for presenting information with a high degree of complexity, and the use of qualitative content analysis technique enables the identification of relevant information within a particular phenomenon and contributes extensive knowledge to the study context. The research results can inform decision-making and planning of tourism policies at the local, regional and national levels, but theoretical research such as that proposed in this study is necessary to determine the pathways that researchers should undertake for their knowledge to be adequately transferred and applied to produce benefits in society.

6.2 Practical implications

This study presents several practical implications for destination managers and tourism policymakers in Barcelona and other cities. Research can influence decision-making and tourism policy planning, which can help destination managers make more informed and evidence-based decisions. The study suggests that collaboration between researchers and policymakers is essential to maximising the impact of research on tourism policy. Policymakers can use research findings to design more effective and targeted tourism policies, while researchers can benefit from feedback from policymakers to adjust their research and make it more relevant to the needs of the tourism destination. Additionally, the importance of effective knowledge transfer between researchers and policymakers is highlighted. To achieve significant impact on tourism policy, it is essential that research findings are communicated effectively and presented in a way that is clear and understandable to policymakers. This may involve the creation of specific knowledge transfer materials and tools, such as reports, executive summaries and presentations.

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