DOCTORAL THESIS

A COMPARATIVE STUDY OF LOCAL EMBEDDEDNESS IN HOTEL AND AIRBNB CATEGORIES IN TWO HUNGARIAN TOURISM REGIONS

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THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN THE DOCTORAL SCHOOL OF BUSINESS AND MANAGEMENT

DOI:10.18136/PE.2025.954

UNIVERSITY OF PANNONIA

FACULTY OF BUSINESS AND ECONOMICS

DEPARTMENT OF TOURISM

VESZPRÉM, HUNGARY

August 2025

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Thesis for obtaining a Ph.D. degree in the Doctoral School of Business and Management of the University of Pannonia

in the field of Social Sciences

in the subject of Management and Business Studies

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propose acceptance (yes / no) .....

(supervisor)

propose acceptance (yes / no) .....

(supervisor)

As a reviewer, I propose acceptance of the thesis:

Name of Reviewer ..... yes / no

.....

(reviewer)

Name of Reviewer: ..... yes / no

.....

(reviewer)

The Ph.D. candidate has achieved …. % at the public discussion.

Veszprém, ...

(Chairman of the Committee)

The grade of the Ph.D. Diploma …..... (…. %)

Veszprém, ...

(Chairman of UDHC)

ABSTRACT

A COMPARATIVE STUDY OF LOCAL EMBEDDEDNESS IN HOTEL AND AIRBNB CATEGORIES IN TWO HUNGARIAN TOURISM REGIONS

The economic impact of tourism, a longstanding topic of study, continues to be widely debated in scientific research. The extent that how different typologies of accommodation providers contribute to local economies is also one of the most important parts of this issue. The dissertation work examines the local embeddedness of accommodation service providers in Hungarian tourism regions of Budapest and surroundings as well as Lake Balaton which make up over half of total tourism nights in the country. In this context, the patterns in procurement practices of independent and chain hotels, as well as landlord-owned and absentee-owned Airbnb properties have been compared. Moreover, the study also investigated the spending behavior of tourists staying in the mentioned accommodation categories. Primary data was collected for the aims of the research through a survey which was conducted on online channels as well as in person in the study regions. A quantitative approach was utilized to analyze survey data from both accommodation providers and tourists by combining statistical analysis and data visualization techniques. The results demonstrated significant differences in procurement practices, thus, independent hotels and landlord-owned Airbnbs sourced a larger share of their supplies locally compared to chain hotels and absentee-owned Airbnbs. Additionally, Airbnb guests allocated a larger share of their non-accommodation budget to local businesses than hotel guests. The findings support targeted policies, such as local procurement incentives and ownership-based regulations to reduce economic leakages in the industry and improve its local economic impact. In addition, the research offers theoretical contributions by refining Airbnb host typologies, extending the filière approach to include platform-based accommodations, and integrating both accommodation procurement and tourist demand into a unified framework of local embeddedness. Therefore, the research contributes to the understanding of economic leakages in tourism and provides practical recommendations to strengthen the local embeddedness of accommodation providers in tourism regions.

Keywords: hotel, Airbnb, local embeddedness, procurement, tourist spending.

ÖZET

MACARİSTAN'IN İKİ TURİZM BÖLGESİNDE OTEL VE AIRBNB KATEGORİLERİNDE YEREL GÖMÜLÜLÜĞÜN KARŞILAŞTIRMALI ANALİZİ

Turizmin ekonomik etkisi, uzun süredir çalışılan bir konu olup bilimsel araştırmalarda hâlâ yaygın şekilde tartışılmaktadır. Farklı konaklama türlerinin yerel ekonomilere ne ölçüde katkıda bulunduğu ise bu konunun en önemli boyutlarından biridir. Bu doktora çalışması, Macaristan'ın en önemli turizm bölgeleri olan Budapeşte ve çevresi ile Balaton Gölü'nde faaliyet gösteren konaklama hizmeti sağlayıcılarının yerel gömülülüğünü incelemektedir. Bu bağlamda, bağımsız ve zincir oteller ile ev sahibi tarafından işletilen ve uzaktan işletilen Airbnb mülklerinin tedarik uygulamaları karşılaştırılmıştır. Ayrıca, söz konusu konaklama türlerinde kalan turistlerin harcama davranışları da araştırılmıştır. Araştırmanın amaçlarına ulaşmak için anket yoluyla birincil veriler toplanmış, bu anket hem çevrim içi kanallar üzerinden hem de saha bölgelerinde yüz yüze uygulanmıştır. Konaklama sağlayıcıları ve turistlerden elde edilen anket verileri nicel bir yaklaşımla, istatistiksel analiz ve veri görselleştirme teknikleri birleştirilerek değerlendirilmiştir. Elde edilen sonuçlar, tedarik uygulamaları açısından anlamlı farklar olduğunu göstermiştir. Bu bağlamda, bağımsız oteller ve ev sahibi tarafından işletilen Airbnb mülkleri, zincir oteller ve ev sahibi olmayan Airbnb mülklerine kıyasla daha büyük bir payda yerel kaynaklardan tedarik sağlamaktadır. Ayrıca, Airbnb misafirlerinin otel misafirlerine kıyasla konaklama dışı bütçelerinin daha büyük bir kısmını yerel işletmelere ayırdığı görülmüştür. Bulgular, sektördeki ekonomik sızıntıları azaltmak ve yerel ekonomik etkileri artırmak amacıyla yerel tedarik teşvikleri ve mülkiyete dayalı düzenlemeler gibi hedefe yönelik politikaları desteklemektedir. Buna ek olarak, araştırma teorik katkılar da sunmaktadır. Airbnb ev sahibi tipolojileri geliştirilerek, filière yaklaşımını platform temelli konaklamaları da kapsayacak şekilde genişletilmiş ve konaklama tedariki ile turist talebi yerel gömülülük çerçevesinde bütüncül bir yapıda birleştirilmiştir. Bu nedenle araştırma, turizmdeki ekonomik sızıntıların anlaşılmasına katkıda bulunmakta ve turizm bölgelerinde konaklama sağlayıcılarının yerel gömülülüğünü güçlendirmeye yönelik pratik öneriler sunmaktadır.

Anahtar Kelimeler: otel, Airbnb, yerel gömülülük, tedarik, turist harcaması

АННОТАЦИЯ

СРАВНИТЕЛЬНОЕ ИССЛЕДОВАНИЕ ЛОКАЛЬНОЙ УКОРЕНЁННОСТИ В КАТЕГОРИЯХ ОТЕЛЕЙ И AIRBNB В ДВУХ ТУРИСТИЧЕСКИХ РЕГИОНАХ ВЕНГРИИ

Экономическое влияние туризма является давней темой научных исследований, которая до сих пор активно обсуждается в научной литературе. Одним из важнейших аспектов этого вопроса является степень, в которой различные типы объектов размещения способствуют развитию местной экономики. В данной диссертации рассматривается локальная укоренённость поставщиков услуг размещения в туристических регионах Венгрии, таких как Будапешт с окрестностями и озеро Балатон, которые вместе составляют более половины всех туристических ночёвок в стране. В этом контексте были проанализированы модели закупок независимых и сетевых отелей, а также объектов Airbnb, управляемых собственниками, проживающими на месте, и собственниками, проживающими вне региона. Кроме того, исследование охватывает поведение туристов в отношении расходов в зависимости от категории размещения. Первичные данные были собраны с помощью опроса, проведённого как в онлайн-формате, так и лично в исследуемых регионах. Для анализа данных от поставщиков размещения и туристов использовался количественный подход, сочетающий статистические методы и визуализацию данных. Результаты выявили значительные различия в практиках закупок: независимые отели и объекты Airbnb с присутствием собственника закупают большую долю продукции у местных поставщиков по сравнению с сетевыми отелями и объектами без участия владельца. Также установлено, что гости Airbnb направляют большую часть своих расходов, не связанных с проживанием, в местные предприятия по сравнению с постояльцами отелей. Полученные результаты подтверждают необходимость целевых политик, таких как стимулы для локальных закупок и регулирование, основанное на типе собственности, для сокращения экономических утечек и увеличения положительного локального эффекта туризма. Более того, работа вносит теоретический вклад, уточняя типологию хостов Airbnb, адаптируя подход «филиер» к платформенным формам размещения и объединяя в единую концепцию локальной укоренённости как сторону предложения (хостов), так и сторону спроса (расходы туристов). Таким образом, исследование способствует более глубокому пониманию экономических утечек в туризме и предлагает практические рекомендации для укрепления локальной укоренённости объектов размещения в туристических регионах.

Ключевые слова: отель, Airbnb, локальная укоренённость, приобретение, туристические расходы

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Acknowledgements

Completing this dissertation has been a challenging, but a rewarding process, and I am grateful to those who have supported me during this process.

First and foremost, I would like to express my sincere gratitude to my supervisors, Prof. Dirk-Jan Ferdinand Kamann and Dr. Petra Gyurácz-Németh. Their guidance, expertise, and constructive feedback have played a huge role for me in conducting this research. They helped me to approach complex issues with a strategic mindset. Thanks to their continuous encouragement and precious support, I remained motivated during the most demanding phases of my doctoral studies. Their mentorship has not only contributed to my academic development but has also influenced my professional growth in ways I will always appreciate.

I am also grateful to all authorities involved in the Stipendium Hungaricum Scholarship Program for their support, which made it possible for me to pursue my doctoral studies in Hungary.

A special thanks go to Prof. Zsolt Tibor Kosztyán, who was the one that first sparked my love for data analysis, as well as Prof. Görög Mihály who taught peculiarities in academic writing.

I would also like to extend my appreciation to Diana Kaszáné Csehi for her administrative support and guidance, as well as Gábor Heizler, who assisted me in navigating the library resources of the University.

I am also very thankful to my family and friends for their support and patience. Their belief in me has been a source of strength, especially during the most challenging times.

Last but not least, I would like to dedicate this work to my parents, who always put their faith in me. Their encouragement and the values they filled in me will always continue to inspire me. From the very beginning of my education, my mother nurtured my love for learning, reading poems and texts to me when I was still in kindergarten and unable to read myself. Her dedication and support always helped me throughout my academic life. My father, on the other hand, gifted me a small globe, which quickly became my favorite toy. Spinning it and tracing my fingers over different countries sparked my curiosity about the world. In a way, this research is a realization of that early fascination, as I have explored just a tiny piece of that globe. This dissertation stands as a tribute to their belief in my potential and the sacrifices they made to support my education.

1 INTRODUCTION

1.1 Importance of the topic

Tourism plays an important role in the economic development of many regions and serves as a driver of employment, income, and business growth (Elgin & Elveren, 2024), contributing just under USD 11 trillion in 2024 to the world GDP, which is set to grow in 2025 to reach USD 11.7 trillion (Statista & World Travel and Tourism Council, 2025).

The industry is considered as a strategic part of Hungarian economy as well (OECD, 2018), as it contributes significantly to the national and regional economies in financial terms (Németh & Gyurácz-Németh, 2022), making up over 6% of the total GDP in the country in 2023 (Hungarian Central Statistical Office, 2025a).

In this regard, the accommodation sector has an essential place as it provides lodging services for the incoming tourists (Chandra & Ranjan, 2022). In general, accommodation service providers are not only essential components of tourism filières but also one of the main contributors to local economic development as their procurement practices and the spending behavior of their guests can create considerable economic multiplier effects (Capone & Boix, 2008). Thus, when accommodation establishments source goods and services locally, they support small businesses and suppliers, hence retain a greater portion of tourism revenue within the region and prevent leakages from the destinations (United Nations, 1999). This concept is also referred as local embeddedness, and has gained increasing attention in academic and policy circles considering its potential to reduce economic leakages (Andriotis, 2002; Mitchell, et al., 2014; Thomas-Francois, et al., 2017) as the outflow of money from a local economy occur when businesses purchase supplies from external sources (Vogt, 2008; Mitchell & Ashley, 2010; Lehmeier, 2015; Mayer & Vogt, 2016).

Furthermore, the rise of short-term rental platforms like Airbnb has brought additional complexity to the accommodation sector (Guttentag, 2019; Smith, et al., 2023). While hotels have traditionally dominated the sector, in recent decades, Airbnb has rapidly expanded by offering tourists alternative lodging options (Mody, et al., 2017). Although such apartments are usually well-integrated into residential neighborhoods, their operations can have both positive and negative consequences (Guttentag, 2015).

On the one hand, Airbnb hosts may procure supplies from local markets, and their guests might spend more in neighborhood businesses, therefore contribute to local economic development (Levendis & Dicle, 2016) which can increase their local embeddedness. On the other hand, the rapid growth of short-term rentals may cause shortages in housing supply as well as price increases, hence displacing local residents (Nieuwland & van Melik, 2018; von Briel & Dolnicar, 2021).

In general, the tourism literature suggests Airbnbs can result in increased tourist spending (Hidalgo, et al., 2024; Kim, et al., 2025) and jobs (Dogru, et al., 2020), especially outside traditional tourist cores of urban areas, while hotels contribute higher direct tax and procurement streams due to their larger size. However, while numerous studies attempt to measure the effect of Airbnbs on hotel performance (Dogru, et al., 2020; Destefanis, et al.,

2020; Yang, et al., 2021) as well as compare their guests' spending impacts (Li, et al., 2022; McKercher, et al., 2023), side-by-side empirical comparisons of hotels and Airbnbs are scarce.

In particular, no empirical studies were found measuring hotels versus Airbnbs local embeddedness under the same research framework, which indicates an important research gap as Airbnbs are now capturing important share in official guest nights globally (Statista, 2025a). To illustrate, in Hungary it is believed to range between 28% and 40% depending on the region (Ministry of National Economy, 2024). Having stated that, empirical economic impact studies on Airbnbs are limited in Hungary.

Moreover, while various typologies in the hotel industry has been researched extensively (Andriotis, 2002; Sirgy, 2002; Stieb, 2008; Mitchell, et al., 2014; Kim & Kim, 2015), much less is known about differences within categories of the Airbnbs in terms of their economic effect on local economies (Lee & Kim, 2023; Guttentag, et al., 2025). Thus, although previous studies (Ram & Tchetchik, 2022; Gyódi, 2023; Lee & Kim, 2023; Herrero Ballesta, 2024; Guttentag, et al., 2025) explored Airbnb heterogeneity, they often focused on issues like gentrification and housing market effects and used listing volume or perceived professionalism as a proxy for comparison.

Therefore, a particular distinction between landlord-owned and absentee-owned Airbnbs have only been theoretically discussed in the literature (Guttentag, 2015). Notwithstanding, such a distinction would be particularly more important and fruitful as different ownership types and management models can potentially influence procurement practices (Adiyia & Vanneste, 2018; Kamann & Gyurácz-Németh, 2023), hence the extent to which businesses engage with local suppliers.

In addition, understanding aforementioned dynamics can be important for policymakers for increasing the positive economic impacts of tourism as well as mitigating potential negative consequences, such as housing affordability issues or excessive reliance on external supply chains (Nieuwland & van Melik, 2018). In this regard, effective regulation and targeted support policies can assist stronger linkages between accommodation providers and local suppliers, therefore improve the economic self-capability of tourism regions (von Briel & Dolnicar, 2021).

Considering above discussion, Hungary, particularly its main tourism regions of Budapest and surroundings, as well as Lake Balaton (Smith, et al., 2023) offer a strategically relevant context for such an investigation. Together, both regions account for over 50% of all domestic and international tourism nights in the country (Hungarian Central Statistical Office, 2024), yet comparative empirical studies on the local economic embeddedness of accommodation providers remain limited. Furthermore, the rapid growth of Airbnb listings in Hungary in recent years and the emergence of regulatory tensions, such as permit restrictions introduced in Budapest indicate the necessity for a better understanding to this industry. The lack of such research in Central and Eastern European (CEE) contexts further emphasizes the need for a regionally grounded approach to this topic.

All in all, this dissertation aims to contribute to the ongoing academic debate on economic leakages in tourism and provide evidence-based recommendations for policymakers in order to support regional development. In doing so, theoretical understanding of local embeddedness, which is a useful tool for analyzing socio-economic development in areas (Hess, 2009), is also

advanced by differentiating accommodation ownership structures, which is an approach rarely applied in empirical studies, particularly for Airbnbs which are treated as a homogenous category in tourism literature (Guttentag, et al., 2025).

Overall, using a dual-perspective approach, the research quantifies and compares local embeddedness across hotel and Airbnb categories in primary tourism regions of Hungary by simultaneously analyzing procurement practices of accommodation providers and tourists' local spending behavior to provide a holistic assessment of economic leakages and regional retention capability.

The following subsection outlines the structure of the dissertation.

1.2 Structure of the dissertation

This dissertation is structured into seven main chapters. The **INTRODUCTION** outlines the research topic and its significance. The **LITERATURE REVIEW** provides an overview of existing studies on tourism, local economic embeddedness, and the role of accommodation providers. **RESEARCH QUESTIONS AND HYPOTHESES** include the main research questions and hypotheses based on the aims of the research and the existing literature. The **METHODOLOGY** chapter details the research design, data collection, and analytical methods used. The **RESULTS** chapter presents the findings based on statistical analyses. The **DISCUSSION** interprets these results by linking them to the literature and providing potential implications. Finally, the **RESEARCH RESULTS SUMMARY AND CONCLUSIONS** summarize the most important details of the research.

2 LITERATURE REVIEW

This chapter provides a literature review on the economic impact of tourism with a focus on the local embeddedness of accommodation services. *Figure 1* depicts the conceptual framework regarding the thematic interconnections of the main topics.

The analysis progresses from conceptual foundations of tourism through filière networks to embeddedness theory, operationalizes this framework through tourist expenditure patterns and accommodation procurement, evaluates socio-economic impacts including leakage dynamics, and culminates in Hungarian contextualization. Such a structured approach establishes the essential research background to explore the local embeddedness of studied accommodation services.

The next subsection includes the discussion of core concepts of tourism, filière as well as local embeddedness.

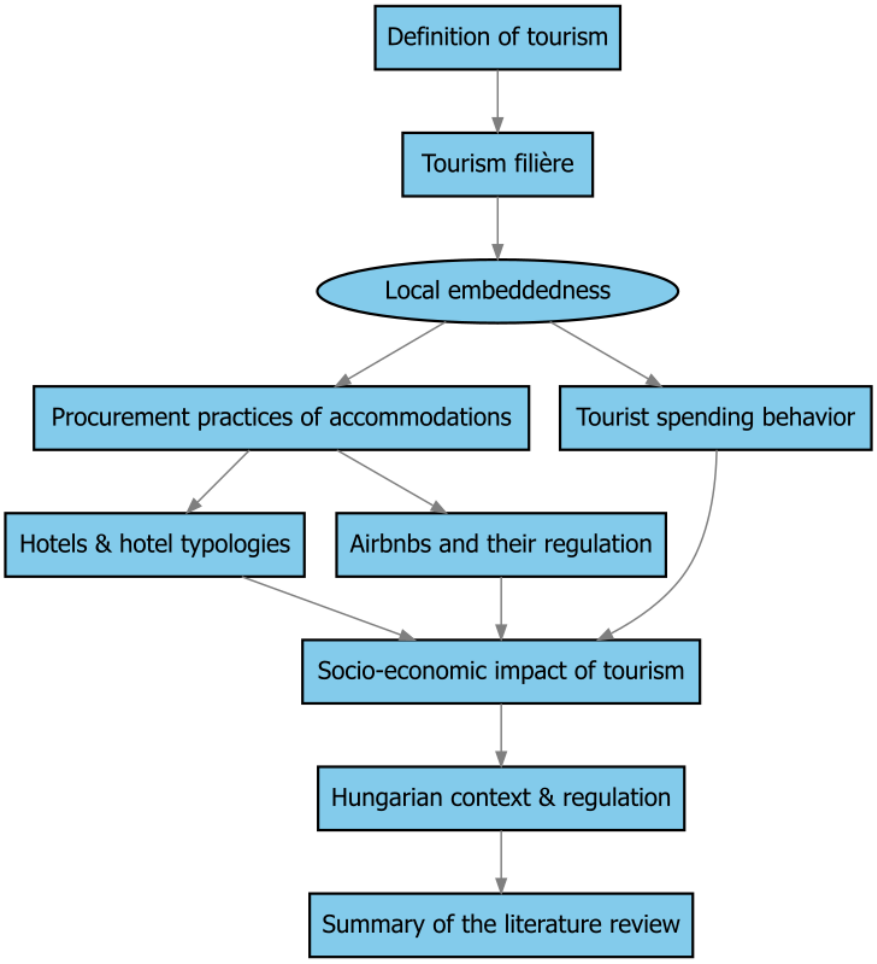

Figure 1. Framework of literature review topics

Source: Own edition

2.1 Tourism, tourism filière and embeddedness concepts

This section provides a conceptual discussion on definition of tourism, tourism filière as well as local embeddedness which are important to understand the main theoretical aspects of the industry, hence this research.

2.1.1 Definition of tourism

It is claimed that the tourism industry is an important element of the global economy as it is contributing significantly to the growth and development of many countries (United Nations World Tourism Organization, 2019). More precisely, the industry made up almost one-tenth of the world GDP in 2024, which is forecasted to grow further in 2025 as well (Statista & World Travel and Tourism Council, 2025).

Despite capturing such an important place in the global economy, its mere definition is highly debated in the tourism literature. In this regard, the following paragraphs include some of the existing definitions of "tourism" and "tourist" by different authors and organizations. Every one of them approaches the phenomenon from different angles, hence, after introducing each definition, their features are discussed shortly in *Table 1*.

Cook's definition (1975, in Hunt & Layne, 1991, p. 8) **–** "*The term - travel should be defined in the broadest way possible to include all movement by people from place to place, exclusive only of those trips made in the course of necessary, everyday activities, such as commuting to work or shopping. While a definition excluding trips of less than 100 miles away from home might tend to significantly underestimate visitor volume in certain area, a definition excluding only trips of less than 50 miles probably would not*".

Jafari's definition (1977;1981, in Smith, 1988, p. 180) – "*Tourism is the study of man away from his usual habitat, of the industry which responds to his needs, and of the impacts that both he and the industry have on the host's socio-cultural, economic, and physical environments*".

Definition by Ansett Airlines (1977, in Leiper, 1979, p. 392) **–** "*Tourism refers to the provision of transportation, accommodation, recreation, food, and related services for domestic and overseas travelers. It involves travel for all purposes, including recreation and business*".

Leiper's definition. (1979, p. 403)– Tourism is "*the system involving the discretionary travel and temporary stay of persons away from their usual place of residence for one or more nights, excepting tours made for the primary purpose of earning remuneration from points enroute. The elements of the system are tourists, generating regions, transit routes, destination regions, and a tourist industry. These five elements are arranged in spatial and functional connections. Having the characteristics of an open system, the organization of five elements operates within broader environments: physical, cultural, social, economic, political, technological with which it interacts*".

Murphy's definition. (1985, in Smith, 1988, p. 180) – "*Tourism is the sum of the travel of non-residents (tourists, including excursionists) to destination areas, as long as their sojourn does not become a permanent residence. It is a combination of recreation and business*".

Supply-side definition of Smith (1988, p. 183) **–** "*Tourism is the aggregate of all businesses that directly provide goods or services to facilitate business, pleasure, and leisure activities away from the home environment*".

Definition by McIntosh et al. (1995, in Cunha, 2012, p. 103) – Tourism "*is the sum of phenomena and relationships arising from the interaction of tourists, business suppliers, host governments and host communities in the process of attracting and hosting these tourists and other visitors*".

United Nations World Tourism Organization (UNWTO) definition of tourist (2008, in Yu, et al., 2012, p. 446) – "*A visitor is a traveler taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited. These trips taken by visitors qualify as tourism trips. Tourism refers to the activity of visitors." It is also mentioned that "A visitor (domestic, inbound or outbound) is classified as a tourist*

(or overnight visitor) if his/her trip includes an overnight stay, or as a same-day visitor (or excursionist) otherwise".

UNWTO tourism definition (2025) – According to the official website of the UNWTO, "*tourism is a social, cultural, and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which involve tourism expenditure*".

Author	**Year**	**Attributes (Keywords)**	**Notes**	**Last peer-reviewed citation***
Cook	1975	Home Employment	Too general, "50 miles" has no clear explanation.	Yu, et al. (2020)
Jafari	1977	Industry Home Relations	Not only the existence of relations within the industry is mentioned, but also its impact on the region is highlighted.	Nitzky (2024)
Ansett Airlines	1977	Business & Leisure	Limited, mostly defines the needs of the tourists.	Hussain and Haley (2022)
Leiper	1979	Home Employment Relations Time	A broad and sophisticated approach considers tourism as a system and depicts its elements.	Zentveld (2025)
Murphy	1985	Business & Leisure Home Time	Very limited, describes tourism simply as a trip.	Buffa, et al. (2025)
Smith	1988	Industry Business & Leisure Home Relations	Broadly construed and clear, it concisely but deftly illustrates the tourism network.	Platania, et al. (2025)

McIntosh et al.	1995	Relations	Too general and a narrow approach.	Dai, et al. (2022)
UNWTO	2008	Business & Leisure Home Employment Time	Only useful for statistical data collection purposes, does not explain tourism as a whole	UNWTO (2024)
UNWTO	2025**	Business & Leisure Home	Narrow, while depicts tourism as the need to meet the demand of visitors.	Efthimiou (2025)

Table 1. Definitions for tourism by various authors in the literature

** As of 05th of July 2025*
*** The year that was last accessed by the author*
Source: Own edition based on the review of the cited definitions

The above review of tourism definitions depicts the complexity of conceptualizing tourism based on the various perspectives through which it has been understood. The following subsection synthesizes these perspectives, addresses the core attributes relevant to this research, and provides the concluding rationale for the selected definitions.

2.1.1.1 Conclusion for definition of tourism

As can be seen from the above-mentioned definitions, authors have approached this topic in different ways by offering dissimilar and sometimes controversial opinions and descriptions.

While the UNWTO definitions (2008; 2025) provide a useful framework for data collection and international comparisons, more comprehensive definitions such as Leiper (1979) and Smith (1988) provide conceptual clarity which is needed for the analytical needs of this research. Leiper's systemic model emphasizes the interconnectedness of tourism elements, while Smith's supply-side focus aligns with the study's aim of investigating local procurement and economic linkages.

Moreover, their continued citation in recent academic literature also validates their relevance. Therefore, these definitions form the conceptual foundation for analyzing how accommodation services operate within broader tourism systems and contribute to local embeddedness.

This discussion provides the foundation for the subsequent sections, which investigate the filière and local embeddedness concepts in tourism, including the structure of tourism destinations and the relationships within the tourism filière.

2.1.2 Filière concept and local embeddedness

This subsection discusses the filière and local embeddedness concepts and their place in

tourism industry by connecting them to the tourism destinations and the relationships among its stakeholders.

2.1.2.1 Filière concept

The filière concept began by researching contract farming and vertical integration in the agricultural industry of France in the 1960s (Raikes, et al., 2000). The approach was used for industrial policies in France, Switzerland, the Netherlands, and Germany among other countries in the late 1980s and stands for a network consisting of both horizontal and vertical linkages between actors (Kamann, 2015). Overall, network is usually defined as a complex web of actions including production, processing, transportation, as well as consumption and characterizes a harmonized procedure from production over the supply chain to consumption and the choices of stakeholders in this process (Liang & Plakias, 2022).

Hence, while the actors can be both economic entities and stakeholders, the primary aim of the approach has been to map actual resource flows and identify actors as well as activities within a filières. This may be thought of as a physical flow chart of commodities and transformations (Raikes, et al., 2000) as it has a production space for local economic relations (Kamann, 2015) which can play an important role for local embeddedness of tourism establishments.

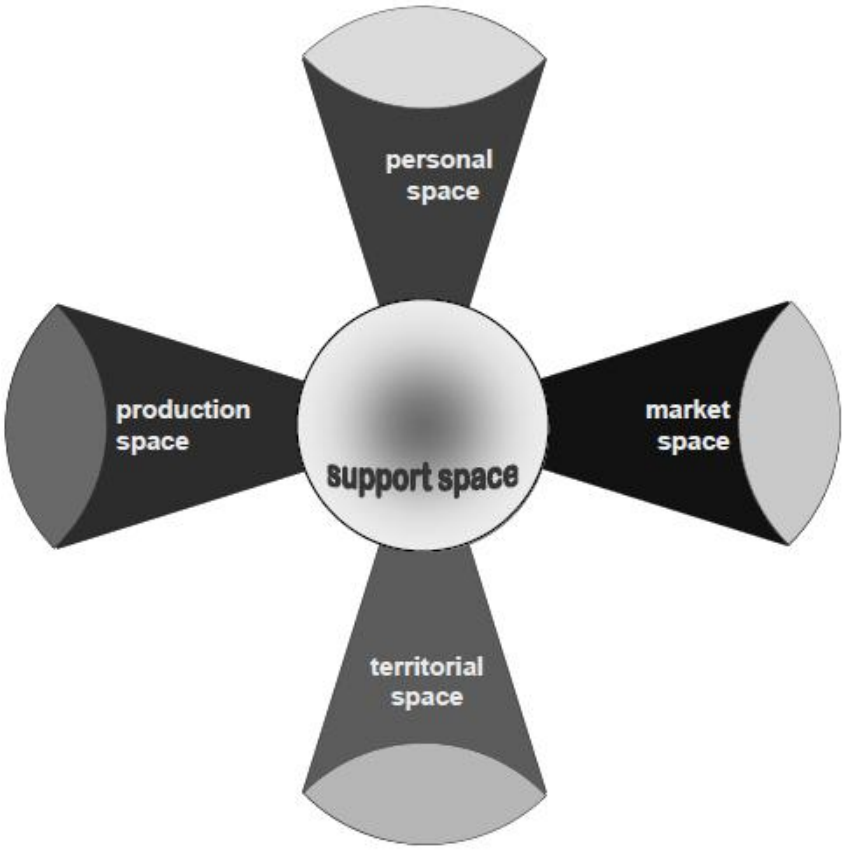

Figure 2. Different types of space with GREMI

Source: Kamann (2015)

All in all, such a train of thought is also related to the concepts like the Marshallian industrial district and can be found back in the concept of filière, as developed by the GREMI (Groupe de Recherche sur les Milieux Innovators) (Kamann & Strijker, 1991; Ratti, et al., 1997). They make a distinction between four types of space: personal space, production space, market space, and territorial space, with the strategic actors assembled into something called "support space" (Kamann, 1997) as described in the *Figure 2*.

Economic spaces refer to the physical and institutional frameworks that form tourism activities (Haugland, et al., 2011), while social spaces relate to the cultural and social practices and norms that influence tourism (Edensor, 2001). By examining these dimensions, it is possible to gain a deeper understanding of the complexities of tourism and the ways in which different actors within the industry interact with one another (Mosedale, 2016). The GREMI approach therefore points out the importance of examining the economic and social spaces of accommodation businesses in order to promote more responsible tourism practices.

This involves considering a range of factors, such as the economic impact of tourism on local communities (Gössling, et al., 2009), the role of local culture and traditions in shaping tourism activities (Richards, 2011), and the social and environmental impacts of tourism (Weaver, 2006). By examining these factors, it is possible to develop a more nuanced understanding of the social and economic dimensions of tourism and to identify ways in which tourism can be made more responsible (Bramwell & Lane, 1993). Although the importance of depicting economic and social spaces in the accommodation industry cannot be overstated, tourism can continue to have considerable role in economic and social development, while also respecting and preserving the cultural and environmental heritage of the destinations (Chhabra, 2020).

Based on the above discussion, it can be stated that the filière concept serves as a framework to visualize all the relevant linkages between actors, both horizontal and vertical. This approach focuses on the strategic and tactical contents of the relationships rather than merely on their volume (Gilly & Torre, 2000). Consequently, it can be determined which types of accommodation services are more inclined to be locally embedded in a region and thus have the potential to support local businesses. Understanding such linkages makes it possible to discern the extent to which accommodation services contribute to local economic and social development (Mitchell & Ashley, 2010).

The following paragraphs will discuss the issues concerning the filières in the tourism industry, including the spaces they occupy, the actors involved, and the nature of the relationships among them. This discussion will clarify how these elements interact to shape the dynamics of local development and tourism practices.

2.1.2.2 Tourism destinations and tourism filière

In order to talk about tourism filière, first of all it is necessary to describe what the tourist destination is. Because merely the tourist destination is the geographical unit where a network of actors collaborates in order to provide an integrated tourism product (Capone, 2004), hence, it is one of the four spaces that Kamann (1997) mentions, specifically as the territorial or geographic space.

In recent years, there has been increasing recognition of the importance of the economic and social spaces in tourism, particularly in the accommodation industry (Hall & Page, 2014; Dredge & Gyimóthy, 2015). The appearance of new players in the market, such as Airbnb, has also brought the need for a better understanding of the social and economic dimensions of tourism spaces (Guttentag, 2015; Frenken & Schor, 2017).

Therefore, the importance of examining the intersection of economic and social factors in tourism becomes even more evident. Thus, the accommodation industry, which is mainly comprised of hotels and short-term rentals like Airbnb, is one of the most important segments in the tourism industry. In this context, understanding the economic and social spaces within which accommodation businesses operate is fundamental for resilient development of tourism (Ioannides & Gyimóthy, 2020).

Moreover, Ma and Hassink (2013) mention while economic geography examines the uneven spatial and temporal distribution of general economic activities, tourism geography focuses on the dynamic spatial aspects of tourism activities within and across destinations over time. Theories in economic geography primarily explain the spatial patterns of manufacturing industries rather than service industries like tourism.

Despite different characteristics, tourism and manufacturing industries share common input factors such as natural resources, capital, labor, technology, and management. Consequently, tourism represents both a resource-based and market-based economic activity. This overlap has led tourism geographers to draw theoretical understandings from economic geography and vice versa (Ioannides & Debbage, 1998).

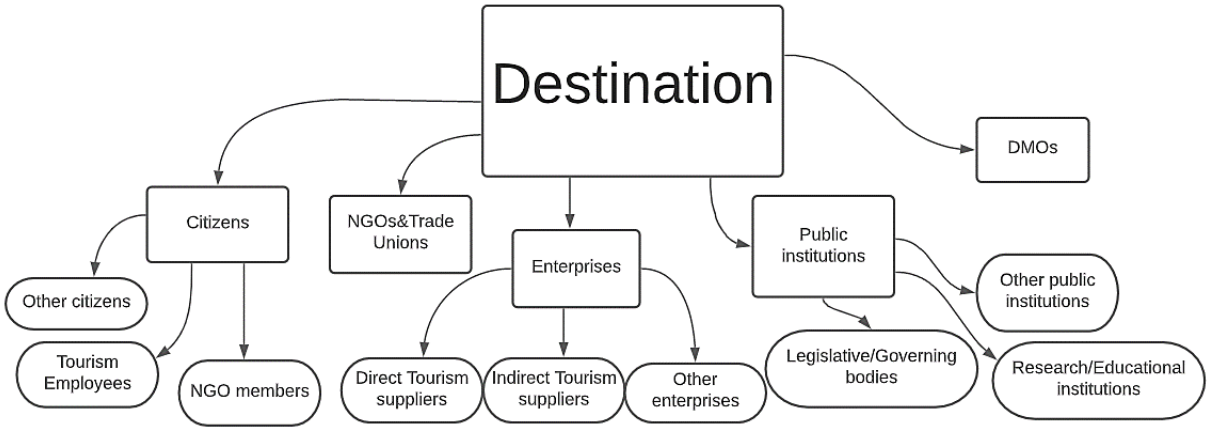

Figure 3. Elements of a destination

Source: Own edition based on Smith (1994)*, Lewis and Chambers* (2000)*, Ratnam and Verma* (2004) *and Panasiuk* (2013)

Thus, when it comes to tourist destination as a separate phenomenon, which is also illustrated in the *Figure 3* definition by the European Commission (2000) is as follows:

> *"An area which is separately identified and promoted to tourists as a place to visit, and within which the tourist product is coordinated by one or more identifiable authorities or organizations".*

Therefore, a tourist destination itself is actually what attracts tourists to visit. On the occasion that, the bonds a tourist destination to its tourism sector remain strong, such linkages are related not only with a cultural and natural resources of a location, but also with its specific socio-economic environment, which plays a critical role in the stability of local economic development (Lazzeretti & Capone, 2008).

Notwithstanding, as Smith (1988) described tourism as the "aggregate of all businesses", it is necessary to further elaborate such actors which in fact compose and facilitate tourism industry, because as Lazzeretti and Capone (2008) states, tourist destinations are typically concentrated in a territory where they shape a well-defined geography of local production systems.

Such systems are also referred to as the tourism filière in the literature which covers particular area within the destination. Below paragraphs discuss opinions and argumentations of several authors in the literature regarding the tourism filière as well as the actors and relations.

It is not an exaggeration to state that, as with any phenomenon, tourism filière also possesses distinctive attributes. For example, Capone (2006) mentions five characteristics of tourism filière:

- Social and economic communities coexist.
- Stable and durable, creates local activities, hence, wealth
- Significant share of the tourism production is made inside the district and by the resident people
- Businesses specialize in one or more stages of the production process which is consumed by tourists.
- The majority of businesses are small and medium-sized (SME)

As it can be seen, based on the features stated above, Capone (2006) presumes that a proper tourism filière bolsters the economic development of localities by heavily involving the local communities in the production of tourism supply. This is quite a critical perspective as Lazzeretti and Capone (2008) also state that a tourism filière is not only a cluster of firms, but also as an instrumental ground for the production of knowledge and know-how in the human and social capital residing in there.

According to Capone and Boix (2008), local tourist production systems can be identified by using two dimensions: territorial (geographical, administrative) and sectorial (filière). Menghinello (2002, in Capone & Boix, 2008) argues that the territorial dimension enables one to go beyond administrative boundaries and relate to each region's actual industry structure where the intensity toward which the local residents are linked to the industry can also be measured respectively.

In regards with the second dimension (filière), the economic activities that make up the tourism industry can be depicted to include a variety of activities such as recreation, accommodation, transportation etc. as described in *Figure 4*.

However, one should distinguish between the direct and indirect suppliers as direct supplier activities are usually preceded by indirect supplier activities in the supply chain (Chae, et al., 2024). Thus, in the case of the tourism industry, direct suppliers, such as hotels and restaurants, get their own supply from the indirect suppliers of the tourism industry. To illustrate, it can be

said that agriculture (by supplying food and beverage) is one of the indirect suppliers of the direct tourism suppliers.

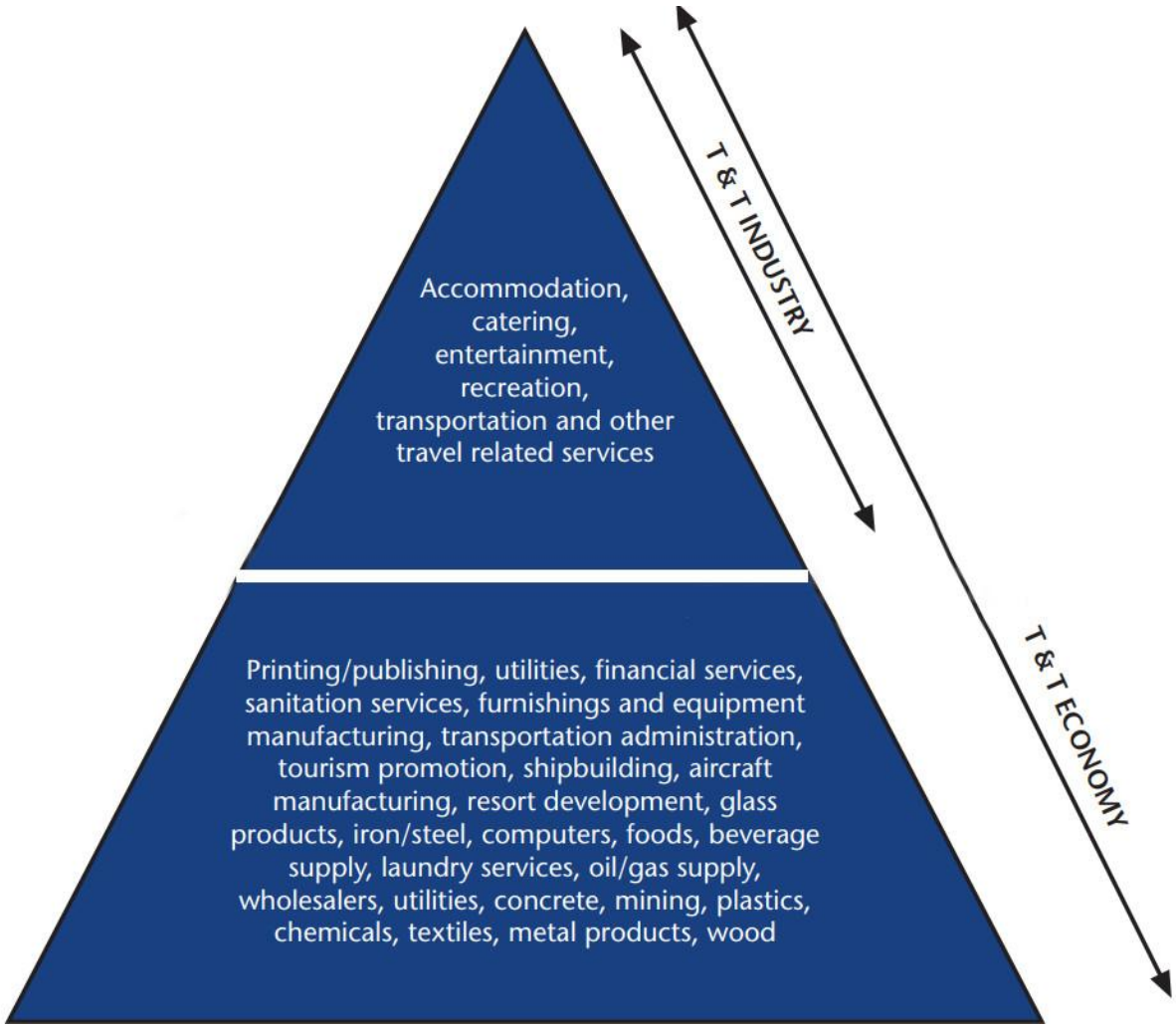

Figure 4. Flows through the effect of the economy in tourism

Source: World Travel and Tourism Council, 2001, in European Commission (2003)

All in all, in order to better understand the tourism suppliers, it is important to describe what generic product is in the tourism industry and what are its production factors. In the case of tourism, the generic product is the enablement of travel and activity of those persons that are away from the ordinary home location (Smith, 1994). Bearing this in mind, Lewis and Chambers (2000) suggest quite an attractive concept of the tourism product. Thus, tourism products are composed of goods, environment, and services. The authors further reason that the product can be viewed on three different levels: the "formal product", or the product that the tourist considers one is buying; the "core product", or that product that the tourist is actually buying; and the "augmented product", which is the combination of core product and in addition, any other value-added features and benefits provided by the supplier (Lewis & Chambers, 2000).

In regards with the direct suppliers of a tourism filière, Cuervo's (1967, in Netto, 2009) claim regarding tourism can also be a good point to consider in which he illustrates tourism as a big set that is composed of below subsets:

- Means of transportation
- Accommodations
- Travel agencies
- Tour guides
- Restaurants, cafes, and other similar businesses
- Commercial establishments dedicated to the sale of souvenirs, articles for travel and other consumer articles common to tourists
- Manufacturers of souvenirs, articles for travel etc.
- Workmanship dedicated for the production of typical objects
- Leisure centers

While attempting to detail the actors of tourism filière, or as we can say, tourism suppliers, Cuervo's analysis is also predicated on the assumption that tourism is a set whose purpose is communication, as described in the paragraph below:

> *"If I accept that during a trip a communication occurs, I can accept as a valid hypothesis that the set tourism is a "system" and that I can also pre determinate a function for this system which in this case, is the communication"* (Cuervo, 1967, p. 33 in Netto, 2009).

Therefore, as the author emphasizes that tourism is a communication network, he also states that while such a system is capable of transmitting positive and useful information in general, it may have negative effects as well. This, in fact, makes it more difficult for the system to function as a positive communication operator as a whole.

The following subsection examines the relations within the tourism filière by mapping the linkages among its actors and situating them within the broader concept of local embeddedness. This perspective highlights how the structure and quality of these relationships influence the extent to which tourism value is retained within host communities and supports regional development.

2.1.2.3 Local embeddedness and relations within the tourism filière

Local embeddedness is an important theoretical concept for understanding how tourism economies retain value within host communities and takes into account the interaction involving macroeconomics and microculture (Ma, et al., 2025). It is based on the broader economic geography and institutional economics (Hess, 2009). Hence, this concept evaluates the multidimensional ties that connect filière actors to local socio-economic systems which provide a decent framework for analyzing economic leakages as well as community resilience in tourism.

Overall, the concept originates in Polanyi's institutional economics, which suggested that economic activities are "*embedded and enmeshed in institutions, economic and non-economic*"

(Gemici, 2007). This therefore is against the classical economists' assumption of autonomous, self-regulating markets by emphasizing how social relations, cultural norms, and power structures can shape economic behavior (Shepherd & Wargent, 2023). Henceforth, in essence, the embeddedness as a phenomenon already implies that without deliberate regulatory frameworks and community-driven governance, tourism markets risk replicating the very power imbalances and leakages they seek to overcome.

The concept is also adapted in the work of Granovetter in economic sociology where he argues that oversocializing, as well as undersocializing can be harmful to local economies, hence, calling for a more thorough investigation of the methods for social relations in economic practices (Pickles, 2017). In this regard, urban planning can be understood as a mechanism for regulating the culturally, politically, socially, and institutionally embedded nature of local economies, particularly in contexts of regulatory controversies as well as spatial reorganization (Peck, 2020). Therefore, the above statements establish embeddedness as a relational frame where economies are co-constituted by institutional arrangements and power dynamics that directly influence value retention in local areas.

Furthermore, Hess (2009) operationalized these ideas through a threefold embeddedness framework comprising: *(1) societal embeddedness*, which takes into account the level to which commercial activities are affected due to the social and cultural background of the business actors *(2) network (structural) embeddedness*, which considers the reality that actors and groups do not behave isolated, but rather within networks of relations (filière) and *(3) territorial embeddedness*, which refers to spatial regions characterized by clustered objects and clear delineations.

Hess (2009) further argues that trust, which is naturally increased through face-to-face interaction and institutional alignment, is the cornerstone of effective economic networks. Thus, spatial proximity reduces misbehavior such as contract violations by embedding relations within local monitoring systems. Conversely, “disembeddedness” occurs when globalization removes transactions from territorial contexts and harm trust while enabling value extraction.

Henceforth, it becomes evident that local economic embeddedness is achieved through making local investments, hence, establishing sustained local linkages (Liang & Plakias, 2022) which is particularly relevant for multinational corporations (Fengru & Guitang, 2019). In tourism, this can be determined as the degree to which businesses integrate with the local community through procurement and employment (Czernek-Marszałek, 2020). This framework therefore enables one to understand why tourism filière benefits from embeddedness to function competitively and retain the greater share of generated tourism value in destinations.

In this regard, while the actors of the tourism filière have been discussed in the previous section, the relations among such actors are also necessary to consider in order to map the abovementioned embeddedness dimensions onto tourism industry structure. Thus, the report that has been contributed by the European Commission (2003) provides a competitiveness model for the tourism sector that includes transportation, accommodation, restaurants, and other food facilities, as well as leisure activities. *Figure 5* describes the model which is founded on the idea of a process of “supplying tourism services”, and it defines a “vertical integrated filière” which is made up of transportation, attractions (recreation), accommodation structures, catering, and restaurants in the vertical column. The tourism filière intermediaries, such as tour operators, tourist guides, and travel brokers, are depicted in the central block. On the other

hand, the upper section shows activities with horizontal integration, such as producers, distributors, and middlemen of non-tourist-related industries.

In the same vein, Jafari (1989) states the significance of tourism business culture in developing countries. Thus, within the framework of local culture, tourism presents more complex issues. Jafari argues that tourism entrepreneurs function as brokers within the host community, either directly or indirectly. This role is heavily influenced by whether these entrepreneurs originate from the local community or are external agents.

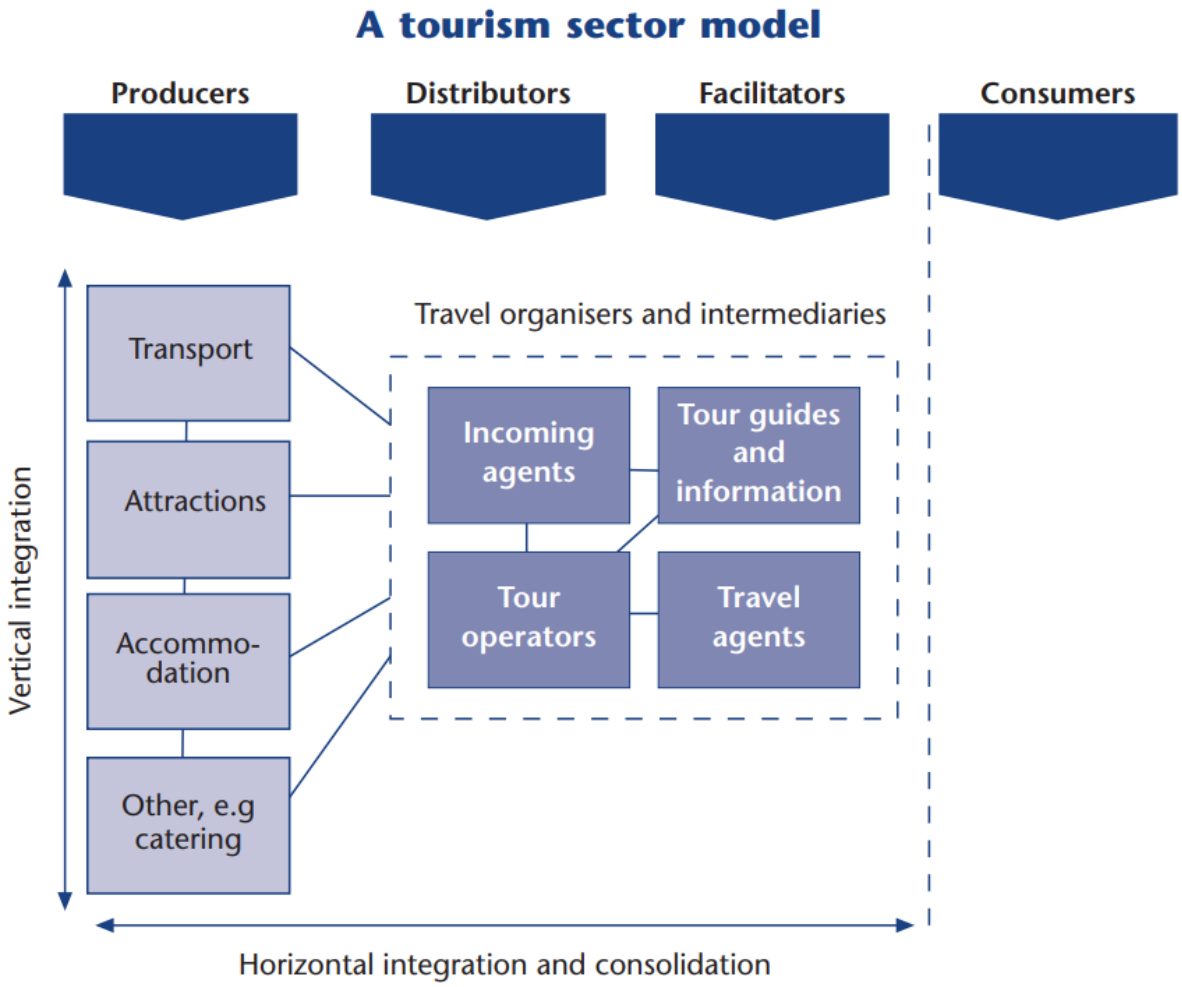

Figure 5. Tourism Industry model

Source: European Commission (2003)

Furthermore, it is obvious that various types of accommodation services which are focal point of this study are also part of the tourism filière. It can therefore be stated that each of such accommodation service providers possess its own procurement network, hence, respective relations. Accordingly, Kamann (2015) states that a network relationship or "contact" can be divided into four categories:

1. the exchange of goods
2. participation in capital - shares
3. the interchange of knowledge

4. the exchange of people

Kamann (2015) also adds that through any of the aforementioned relationships, any actor technically can attempt to exert authority, power, or other types of hierarchy or decision-making authority on another actor or actors. Furthermore, the decision process determines whether the organization is going to perform tasks itself or outsource it from a third party. That is the reason why distinguishing between different sorts of networks as a result of the various types of relations, with appropriate ways for visualizing and analyzing them is needed. Hence, depending on the characteristics of an accommodation service provider, it may design types of networks that fits best their own interests while neglecting the needs of the other actors.

Moreover, as the term "other actors" have been mentioned, Porter's (1980; 1998) theory becomes relevant in which competitors, suppliers, buyers, producers of potentially substituting products, producers of potentially substituting raw materials and/or technologies and new entrants are depicted. Kamann (2015) states that this list could be expanded with additional actors related to governmental agents, from lower local authorities and state agents to central governments and international, super-national institutions as well as stakeholders in social interactions and institutional actors. For instance, workers, trade organizations, works councils, environmental lobbies and even political parties, basically everyone who believes that they are entitled to be an active voice in the company's strategy and specific plans that may affect them in any way all in line with the so-called selection environment (Kamann, 2015) as depicted in the *Figure 6*.

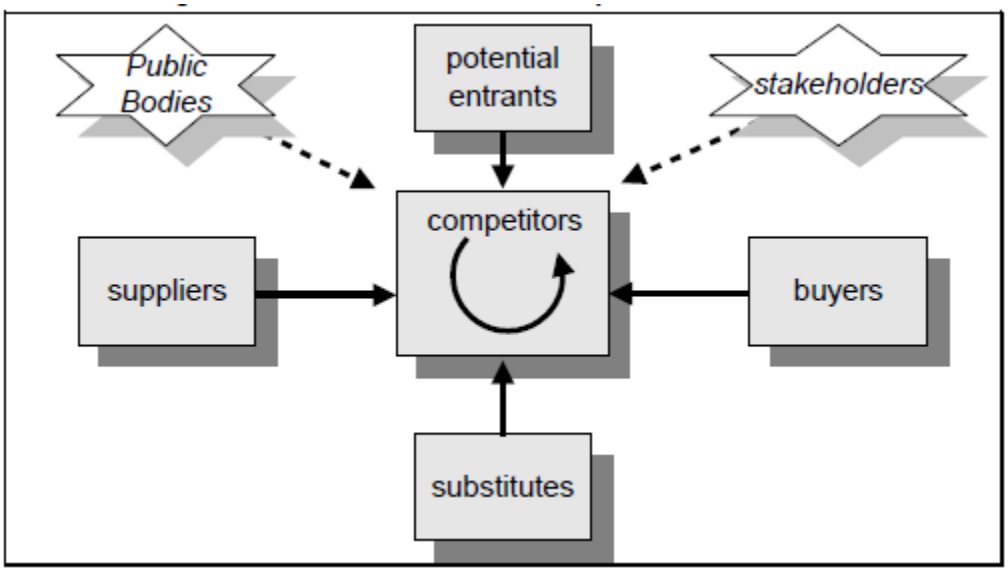

Figure 6. Actors in a filière

Source: Porter (1980; 1998, p. 4) *and Johnson and Scholes* (2008) *in Kamann* (2015)

According to Porter (1990), in a worldwide economy, increasingly competitive advantages are based in local systems and key locations. Spatial clusters are defined as "a geographic concentration of interconnected companies and institutions in a particular field" by Porter in the Competitive Advantage of Nations (Porter, 1990). Although in general Porter's research is mostly focused on traditional sectors, it also makes references to the tourism industry:

> *"a host of linkages among cluster members result in a whole greater than the sum of its part. In a typical tourism cluster, for example, the quality of a visitor's experience depends not only on the appeal of the primary attraction but also on the quality and efficiency of complementary businesses such as hotels, restaurants, shopping outlets and transportation facilities. Because members of the cluster are mutually dependent, good performance by one can boost the success of the others"* (Porter, 1990, p. 77).

Moreover, Porter (1980; 1998) in his theory of five forces, also mentions that there are key concepts regarding each type of the actors that are involved in the network. Specifically, while cost impact, product information etc. are explained as playing an important role for buyers, the suppliers are stated to be affected by the bulk transactions, differentiation, and their individual importance as well as the concentration of the other same-category suppliers in the area.

Altogether, the above-discussed perspectives can effectively be connected to the framework by Hess (2009) which also manifests in tourism networks:

- Societal embeddedness determines whether Jafari's entrepreneurs function as community brokers or leakage channels.
- Network embeddedness shapes Kamann's exchange categories (goods, knowledge, etc.), defining how value circulates locally.
- Territorial embeddedness enables Porter's clusters by anchoring procurement within geographic proximity.

It can therefore be stated that local embeddedness is far from being a simple concept as it is dependent on complex determinants. Moreover, weak embeddedness in any dimension creates the risk of disconnection from local economies where externally controlled establishments design self-interested networks which bypass community suppliers and hence increase economic leakages. Thus, embeddedness isn't merely a characteristic of filières but the relational infrastructure that determine their local economic impact.

In line with what has been stated above, contemporary tourism research has increasingly been examining procurement practices as a solid measurement of local embeddedness of accommodations. To illustrate, Argyropoulou, et al. (2019) report that in Greece, benefits such as boosting the regional economy and faster deliveries can be reasons for hoteliers to prefer local suppliers, while higher costs and limited quantities remain problematic aspects of such procurement. This trade-off can be interpreted through Porter's (1980; 1998) five-forces concept, specifically, cost pressures and the bargaining dynamics between buyers (hotels) and suppliers, together with low local supplier concentration or limited product differentiation help explain why hotels are inclined for faster delivery and regional benefits against higher prices and scarce volumes when deciding whether to source locally.

In the same vein, Adiyia and Vanneste (2018) show that in Uganda, unreliable local farm output often forces tourism businesses to utilize intermediaries rather than source directly from small local suppliers, even though "windows of opportunity" remain for linking these farmers into tourism value chains. Santana-Talavera and González-Morales (2024) find a similar emphasis

in luxury hotels, arguing that these establishments are major consumers of local agricultural goods. They suggest that tracking hotel purchases of local foods, for instance through award programs, can incentivize greater local procurement and thus support community development. Accordingly, framework of network relations and decision authority (Kamann, 2015) is fruitful to explain this pattern. Thus, when local farm output is unreliable, tourism firms often exert their sourcing power by routing purchases through intermediaries or outsourcing procurement, and Jafari's (1989) idea of tourism entrepreneurs as brokers further clarifies how the origin of those intermediaries determines how much of the value actually reaches small farmers.

In addition, a bibliometric review by Changalima and Kimario (2025) identifies inclusive growth and poverty reduction through procurement practices of tourism establishments as an emergent topic. Empirical work also supports the role of sustainable sourcing, such as prioritizing local economic, environmental, and cultural benefits in enhancing resilience. For example, Ali (2025) demonstrates that such sourcing positively influences tourism resilience by preserving local culture and ecosystems. In accordance with discussions from Jafari (1989) and Kamann (2015), the push for sustainable, locally-centered sourcing is not just an operational choice, on the contrary, a strategic one that strengthens territorial and network embeddedness by shifting brokerage roles toward local actors and rebalancing power in supply relations. Such procurement can therefore result in inclusive growth, poverty reduction and greater resilience.

Hence, recent tourism studies show the concept of local embeddedness, which is defined as the degree to which tourism businesses procure locally and partner with community actors, as an important determinant for resilient growth of the industry. In this regard, in empirical tourism studies, local embeddedness is usually operationalized through measurable metrics, such as, multipliers (Kim & Kim, 2015; Tohmo, 2017; Kronenberg, et al., 2018), the share of local procurement (Andriotis, 2002; Dusek, et al., 2011) and the spending behavior of tourists within the destination (Li, et al., 2022; McKercher, et al., 2023; Guttentag, et al., 2025), as further discussed in the section *2.4 Socio-economic impact of tourism.*

While such metrics capture territorial and network dimensions of embeddedness, it should also be considered that they only partially reflect their broader, multidimensional nature by only partly capturing societal embeddedness, as described by Hess (2009). Thus, cultural ties, values, social problems and even political or any other ideologies can be a reason for determining motivations of companies and hence, shape their economic behavior (Wu & Pullman, 2015). Although these additional factors play a role in terms of trust and long-term collaboration within local tourism networks, they remain difficult to quantify and are seldom included in quantitative empirical analyses. However, it is also worth to state that, some qualitative studies, such as the one by Wu & Pullman (2015) have made incremental attempts to examine these broader socio-cultural and institutional dimensions of local embeddedness.

Lastly, in practice, variations in ownership and management structures, such as independent versus chain hotels (Kamann & Gyurácz-Németh, 2023), or different Airbnb hosting arrangements (Guttentag, 2019) can affect the procurement networks within the filière. Hence, organizational form may influence local supplier relationships through procurement autonomy, decision-making hierarchy, and capital reinvestment patterns, hence the local embeddedness (Adiyia & Vanneste, 2018). This makes ownership type a potentially critical determinant of local embeddedness, yet it has rarely been examined within the tourism filière framework,

especially in case of Airbnbs. A more detailed discussion for this is provided in the section *2.3 Accommodation service providers in tourism*.

2.1.2.4 Conclusion for filière concept and local embeddedness

All in all, above section indicates that the filière concept offers a comprehensive framework for understanding the complex network of relationships within the tourism industry. As discussed, the tourism filière is characterized by the coexistence of economic and social actors, the specialization of businesses in different stages of the tourism production process, as well as the strong presence of SMEs. This also emphasizes the interconnectedness of direct and indirect suppliers and hence, considering the subsequent economic effect, the importance of local embeddedness and integration in tourism development.

Additionally, identifying tourism as a communication network means the relationships among tourism actors extend further than simply economic transactions. The transmission of knowledge, culture, and social values within the tourism filière can shape the long-term viability of tourism destinations. Hence, the coexistence of economic actors, and communication pathways all depend on societal, network, and territorial connections to prevent leakage. This positions local embeddedness as an important determinant of whether tourism value chains empower or extract from communities.

Local embeddedness was discussed as a phenomenon which has distinct, however, interdependent dimensions: (1) societal embeddedness (norms, trust and community ties), (2) network embeddedness (quality and density of supplier-buyer relations), and (3) territorial embeddedness (geographic proximity and place-based resources). The mentioned dimensions operate through concrete mechanisms, namely, procurement decisions, employment patterns, knowledge transfer and local reinvestment. These processes therefore determine whether tourism activity contributes to inclusive, resilient local development or instead enables extraction by external actors.

Empirically, procurement patterns and tourists' non-accommodation spending function as quantifiable and policy-relevant proxies for network and territorial embeddedness. Thus, they capture direct economic flows and can be measured across accommodation types and regions, which makes them useful for a comparative analysis. However, these metrics have limits as they only partially reflect societal embeddedness, which includes qualitative characteristics, such as, the role of informal exchanges and the political-institutional forces that mediate resource flows.

In addition, organizational form and governance structure are important mediators within filières. It has been discussed that ownership, managerial autonomy, and procurement authority influence whether a firm sources locally or relies on centralized, external supply chains.

Last but not least, above observation also identifies a clear empirical gap. Thus, while the filière literature has long examined suppliers and clusters, it has given comparatively little attention to how platform-based and owner-occupied short-term rentals, such as, distinct Airbnb ownership types are embedded within tourism filières.

Therefore, the relative scarcity of such studies that systematically compare hotel chains, independent hotels, landlord-owned, and absentee-owned short-term rentals using equivalent procurement and spending metrics motivates the comparative design of this research.

Next section provides information about tourist expenditure and studies regarding its effects on destinations.

2.2 Tourist expenditure

Building on the filière and embeddedness discussion in the previous section, this section examines tourist expenditure as a practical tool to assess the economic links between visitors and local destination economies.

Overall, tourist expenditure provides a substantial contribution to economic growth at the national and regional levels (Marrocu, et al., 2015). To illustrate, in 2024, domestic tourists spent over USD 5 trillion with a 5.4% rise compared to 2023, while expenditures by international tourists grew by 11.6% annually and almost reached USD 2 trillion (World Travel and Tourism Council, 2025).

Tourist spending is also an observable indicator of both network embeddedness, by determining how firms and suppliers are connected through procurement and service provision, as well as territorial embeddedness, thus, the extent to which spending circulates within a defined geographic area.

Furthermore, although societal embeddedness is mentioned to be more difficult to measure quantitatively as discussed in the previous section, it can nevertheless influence tourist spending patterns. A relevant theoretical perspective in this context is place attachment or sense of place (Relph, 1976; 2008; Shamai, 1991), which describes the emotional and behavioral bond that individuals develop with destinations through their experiences and interactions. This framework further attempts to quantify attachment along a continuum from "no sense of place" to "total identity with the location."

In tourism, higher place attachment has been associated with more immersive and exploratory consumption, such as patronizing local markets, independent restaurants, and community-based activities (Aparicio, et al., 2021; McKercher, et al., 2023). As such, differences in accommodation type may indirectly influence the degree to which tourist expenditure supports local businesses and contributes to embeddedness by shaping the opportunities and incentives for such interactions.

Accordingly, accommodation choice can influence the development of such attachment by shaping opportunities for interaction with local communities (Yannopoulou, et al., 2013). For example, self-catering Airbnbs may encourage engagement with local food producers and retailers, while hotels may channel spending toward on-site or nearby establishments. These behavioral differences can ultimately affect the degree to which tourist expenditure supports local businesses and contributes to embeddedness.

Therefore, in line with Mayer and Vogt's (2016, p. 170) statement that *"one of the most important drivers is the spending behavior of visitors",* analyzing tourist spending patterns can offer significant insights for stakeholders within the tourism sector. When profitability is

considered as the primary objective, it becomes important to differentiate between the depth and breadth of the tourist expenditure, hence, the profits generated from it (Aguiló, et al., 2017).

Several authors, such as Perez and Sampol (2000) have examined actual tourist expenditure as the main variable within the tourism sector. Therefore, it is strongly accepted by many that understanding the tourist expenditure and conducting an effective analysis can provide information into the profile of tourists that visit tourism areas and their consumption tendencies respectively (Wang & Davidson, 2010). Similarly, Judith (1999, in Kozak, 2001) found that international tourists visiting the United States who are interested in cultural and natural attractions, such as museums and national parks, tend to spend more time and money compared to those engaged in other types of tourism.

In the same vein, more recently, Guttentag, et al. (2025) explored how experiences of the visitors choosing Airbnb accommodations differ depending on the subcategory of Airbnbs by analyzing the actual reviews by guests. While the above studies effectively highlight distinct segments within tourist behavior, they nonetheless overlook the locality of tourist spending which is an important dimension relevant to destination development. These studies therefore fail to examine what share of the tourist expenditure, whether because of attraction preferences or accommodation experiences, is retained within the local economy through linkages with local suppliers and producers, or its subsequent multiplier effects.

Moreover, methodologies for analyzing tourist expenditure and destination performance vary in the literature. Thus, on the one hand, some studies focus on aggregate tourist expenditure, such as total spending per tourist or trip and incorporate length of stay and daily spending rates (Kozak, 2001; García-Sánchez, et al., 2013). On the other hand, others employ a disaggregated approach and categorize expenditure by spending type such as shopping, F&B and transport in order to understand distribution patterns and identify profitable segments (Amir, et al., 2015).

In this regard, relying on aggregate expenditure can be misleading, as high accommodation costs may offset spending in other categories (Wang & Davidson, 2010; Boboli & Dashi, 2022). Hence, to gain a better understanding in terms of impact of tourist spending on local businesses outside of lodging, previous research has increasingly differentiated between expenditure within accommodation establishments and expenditure outside them (Hong, et al., 1996; Wang, et al., 2006; Amir, et al., 2015).

Prior findings therefore suggest that tourists typically are inclined to spend more on services such as shopping, F&B and less on transport and entertainment outside their accommodation (Amir, et al., 2015). This fact is also particularly important when researching tourists spending due to the fact that tourists are more likely to spend comparatively higher amounts on local businesses than the local residents themselves (Aparicio, et al., 2021). Therefore, it can be concluded that, especially in the case of Airbnb apartments, their uneven distribution basically shapes the indirect and overall impact of tourism (Hidalgo, et al., 2024).

Henceforth, considering that accommodation expenditure usually makes up a significant portion of tourist spending, the role of accommodation service providers becomes particularly important in shaping both visitor experiences and local economic benefits. In this regard, Sthapit et al. (2022) suggests Airbnb accommodations may generate stronger local economic effects compared to traditional lodging options, such as hotels, which in fact agree with the perspective of Hidalgo, et al. (2024) as mentioned earlier.

In the same vein, the findings of the research by McKercher, et al. (2023) also confirmed the connection between accommodation preferences and tourist behavior, hence, destination consumption patterns. Although these studies did not quantify the impacts of tourist spending on local economy, such existing evidence shows that how and where tourists spend outside their accommodation is significantly influenced by their choice of lodging provider and emphasizes the need to further analyze non-accommodation expenditure patterns comparatively across accommodation types to assess true local economic impact.

2.2.1 Conclusion for tourist spending

In conclusion, analyzing tourist expenditure makes it possible to understand details about behavior of visitors, destination performance, and also potential areas for revenue optimization. In this regard, while traditional methods focus on overall spending per tourist, in tourism literature, there also exist a significant number of studies that utilize approaches that differentiate between expenditure categories which are helpful in terms of avoiding misleading conclusions. Particularly, distinguishing between accommodation-related expenses and spending on other goods and services can be fruitful in assessing economic contributions and developing better-targeted strategies. This therefore provides the reasoning for examining tourist spending patterns across different accommodation categories to assess their relative contribution to local embeddedness.

The following section discusses the place of different types of accommodation service providers in tourism, their business operations as well as various impacts on the industry and localities.

2.3 Accommodation service providers in tourism

In accordance with the multidimensional framing of local embeddedness discussed in the section *2.1.2.3 Local embeddedness and relations within the tourism filière*, this section focuses on network embeddedness, thus, the density and governance of supplier-buyer relations within tourism filières and its practical manifestations among different accommodation providers.

The subsections that follow therefore examine procurement operations of hotels and their respective categorization (chain versus independent), and then turn to short-term rentals, emphasizing Airbnb host typologies and regulatory responses. Hence, it is described that how ownership and managerial autonomy, procurement authority, and regulatory constraints can shape positions of accommodation establishments within local supplier networks. This sets up the empirical strategy used later in the thesis to compare procurement shares as a proxy for local embeddedness.

2.3.1 Hotels and procurement operations

The meaning of the modern word “Hotel” evolved through history, for instance, in France,

wealthy people's homes were referred to as "hotels" as well as community buildings, such as the town hall, were also referred to as hotels. However, it was only after two decades that the term "hotel" came to be accepted as a place where people stayed for the night and paid for their food (Sheela, 2002).

It is believed that accommodation is the core of the tourism sector, being a vital and important component of the tourism supply (Chandra & Ranjan, 2022) as people usually prioritize shelter wherever they visit. It is therefore an important part of the world economy. Thus, the assessed value of the worldwide hotels market was about USD 1.5 trillion in 2023, and this number is expected to increase in upcoming years as well (Statista, 2024).

It has already been mentioned in the section *2.1.2.2 Tourism destinations and tourism filière* that the business operations of the direct suppliers are often preceded by indirect supplier activities in the supply chain (Chae, et al., 2024). Accommodation services, hence, hotels are the direct suppliers of the tourism industry, being part of the tourism filière are no exception in this regard. Therefore, suppliers of accommodation services provide necessary goods and services for them by playing the role of indirect tourism suppliers, hence, being the related business activities (Balaguer & Cantavella-Jorda, 2002).

In this regard, Feinstein, et al. (2017) depict several categories of procurement for hotel businesses starting with several F&B categories considering that supplying F&B for immediate consumption is one of the main functions of the hotels (Sheela, 2002) making this procurement category one of the most important supply departments for any such establishment. The authors introduce fresh produce and processed produce as one of the challenging categories to procure because the quality, quantity and the value of such products can fluctuate even on a daily basis. Moreover, while purchasing fresh products demand careful selection as well as proper storing in order to keep the quality at the best possible level prior to preparing and serving them to the guests, processed produce is more routine as the quality of such product are more predictable (Feinstein, et al., 2017). Other important sub-categories of F&B procurement are listed as eggs, dairy products, meat, fish and beverages.

Next, non-food supplies, also known as "operating supplies", encompass various procurement categories, including ware supplies (both permanent and disposable), fabrics (such as bed linen and curtains), maintenance materials, cleaning products, and other miscellaneous items. While the procurement of these supplies is usually a routine process guided by established regulations and accounts for a smaller share of overall procurement expenses, it still involves several important decision-making factors. In particular, ensuring adequate quality control and allowing for customization can make non-food procurement a more meticulous and carefully managed process (Feinstein, et al., 2017). On the other hand, furniture, fixtures, and equipment (FFE) are different in this regard as they are classified as capital items which are depreciable assets that cannot be deducted in full during the year of purchase. Instead, hotels must depreciate their value over several years, deducting only a portion annually. As they are designed for long-term use, FFE items can remain functional for over a decade with proper maintenance, even if their value is depreciated over a shorter period. When it comes to the procurement of these assets, in the same vein with the non-food items, it also follows established principles, ensuring they align with operational requirements as well as financial considerations (Feinstein, et al., 2017).

Finally, Feinstein, et al. (2017) identify services as a distinct procurement category which includes waste removal, financial services, advertising (marketing), consulting, maintenance, vending machines, laundry and linen supply, insurance, and cleaning services. In large corporations, purchasing directors may negotiate contracts for certain services, while department heads may handle procurement for their specific areas. However, since many of these services are primarily provided by local suppliers, unit managers, both in independent establishments and chain-affiliated properties have considerable influence on the selection and procurement process for ensuring that service providers meet operational requirements.

Next section discusses the categorization of hotel establishments, providing a basis for further analysis with the aim of this thesis.

2.3.2 Categorization of hotels

Camison, et al. (2020) explain that hotels acquire resources in different ways, which is influenced by their structure and operations. There are three main approaches: (1) purchasing from the market, where hotels buy resources from external suppliers; (2) vertical integration, where hotels produce or control their own resources instead of relying on others; and (3) a mixed approach, where hotels use contracts with other firms to secure necessary resources while maintaining some level of control. In this regard, one of the most important factors in determining which approach to take is the type of ownership (Camison, et al., 2020) which is discussed in paragraphs below.

The tourism industry, especially the hotel sector, includes very complicated types of ownership and management structures, and the nature of this wide range of structures may in fact influence business operations, including the supply chains (O'Neill & Carlbäck, 2011; Peiro-Signes, et al., 2015; Marco-Lajara, et al., 2016; Kamann & Gyurácz-Németh, 2023). Also, Contractor and Kundu (1998) analyzed numerous forms ranging from "*complete ownership to a partial equity stake to various contractual modalities, such as management service and franchise agreements*". The same classification is used in some of the recent hotel chain strategic literature (Ivanova & Rahimi, 2016), which analyzes the effectiveness of each organizational structure as a way of growth or entrance into global markets, differentiating between equity or hierarchical modes and non-equity or contractual modes (Ivanova & Ivanov, 2015; Ivanov & Ivanova, 2016)

Notwithstanding, majority of research studies in the hotel literature still use a "binary" classification, therefore only differentiating between independent hotels and hotel chains (Marco-Lajara, et al., 2014; 2019; Úbeda-García, et al., 2018). Therefore, it can be assumed that there are two main types of hotel businesses: independent and chain hotels, generalizing all types of chain-affiliations of hotels, e.g., franchise etc.

While this may be considered an oversimplification of the hotel industry, the main factor behind this distinction lies in the contrasting supply chain structures of chain and independent hotels, especially in their geographical footprint as well as level of community integration. To be more precise, it can firmly be stated that in a hotel chain system, the chain controls and owns the management, service quality, capital and assets, brand, as well as reservation system, among other things (Contractor & Kundu, 1998), whereas in an independent hotel system,

owners are able to make independent decisions respectively (Kamann & Gyurácz-Németh, 2023). In other words, chain hotels provide more consistency and reliability thanks to the parent company's standardized procedures and resources whereas independent hotels may provide more unique experiences and personalized service because of their autonomy and local ownership (Komlósi & Gyurácz-Németh, 2014).

All in all, above statements enable one to conclude that such differences in flexibility affect the hotels' place in a filière by determining the organizational form of tourism enterprises, hence, in the tourism destination or area in which they are locally embedded and carried out their activities, thereby contributing to the creation of an integrated product (Marco-Lajara, et al., 2016). A filière is already defined and discussed in the section *2.1.2 Filière concept* being interconnected enterprises that interact cooperatively as a result of their physical and social proximity. Because of the high degree of trust among enterprises in the same geographical area, informal face-to-face contacts are widespread, resulting in a high resemblance in the district's technology and languages, mirroring what happens within the firms themselves (García-Villaverde, et al., 2017; Staber, 1998). In this sense, a filière represents a type of intermediate collaboration that does not require established contractual processes and that combines the individual capabilities of the enterprises placed in it with the shared capabilities of the geographical space (Camison, et al., 2020). Therefore, it can be said that each type of accommodation service provider is considered to possess a different filière, hence, impact on the region, which will be discussed more broadly in the below sections. Thus, the following sections describe the chain and independent hotels separately to illustrate their core differences.

Below subsections describe different characteristics of chain and independent hotels in terms of their operations as well as effects on localities.

2.3.2.1 Chain hotels

Chain hotels are owned and operated by a parent company that manages multiple properties, also known as branded hotels (O'Neill & Carlbäck, 2011). Such establishments are frequently located in different regions or cities, but they all operate under the same brand name such as Marriott, Hilton, and Holiday Inn and follow the parent company's standards and guidelines (Brookes & Roper, 2012; Ivanova & Ivanov, 2014).

In principle, hotel chains are created to increase profitability and improve market competitiveness by efficiently coordinating and sharing management functions as well as the other resources (Enz, 2009). Because of their benefits over independent hotels, their proportion of the worldwide hotel business is steadily growing (Holverson & Revaz, 2006). In 2020, The global hotel industry encompassed around 29 million rooms, with almost half of these rooms being operated by hotel chains. This highlights the significant presence of branded hotel chains in the industry, which plays a crucial role in standardizing services and driving growth in the global accommodation sector (Accor Group, 2021). If hotel chain development processes and individual hotel development processes compared, it can be seen that the chain hotel industry accumulation is increasing faster, also there is a tendency for both luxury and budget segments as a consequence of hotel mergers and acquisitions as well as franchise chain operations (Moreno-Perdigón, et al., 2021).

Considerable growth in terms of arrivals as well as revenue figures in the worldwide tourism industry has resulted in a substantial rise in the earnings of the big hotel chains (Pirnar, 2016). As a result of tremendous expansion in the number of hotels, guest revenues, and worldwide hotel market share, multinational hotel chains have become extremely significant financially to the destination areas and regions in which they operate. It is critical to remember that such critical economic consequences can be both beneficial and harmful, therefore being aware of them is critical for reliable and efficient management solutions (Brotherton, 2008).

For hotel chains, procurement is usually supervised by a centrally based vice president of purchasing (Dev & Brown, 1990). In regards with efficiency, such centralization helps to maintain uniform service standards while also reducing costs through larger-scale operations, also known as economies of scale (Ribaudo, et al., 2020). This, in fact, might be the only way for large international hotels considering their supply base can be bigger than what the local suppliers are capable of offering, which may prevent them increasing their local embeddedness especially in relatively smaller destinations.

Thus, these organizations may operate one or more central warehouses or commissaries, which supply company-owned locations with needed materials under the supervision of this purchasing vice president (Feinstein, et al., 2017). While managers at individual locations primarily receive items from these central distribution points, they may also have limited purchasing authority from approved local or national suppliers (Kothari, et al., 2007). Notwithstanding, in some cases, managers can place orders from local suppliers to improve community relationships, hence local embeddedness or secure unique supplier advantages (Feinstein, et al., 2017).

In terms of marketing, chain hotels frequently have larger advertising and promotion budgets thanks to parent company support (Camison, et al., 2020) as well as more standardized procedures and protocols in place for things like check-in and check-out, room cleaning, and customer service with the aim of minimizing risks particularly the human-related factors (Komlósi & Gyurácz-Németh, 2014). They can sometimes function at different levels, ranging from local small scale to regional, national, or international big forms, with a distinct marketing and management advantage derived from the communication of a common brand, logo, motto, popular concept or theme, techniques, developments, and management know-how with outstandingly low costs of operation (Weber, 2000; Akyuz 2008).

To reiterate, Bryden (1973) also argues that the challenges in developing backward linkages in the tourism sector often arise from the organizational and structural characteristics of international tourism. Multinational hotel chains, in particular, tend to maintain strong ties with foreign suppliers (Giampiccoli, et al., 2020). Therefore, it can be stated that such a practice which causes lower levels of local embeddedness for chain hotels can affect negatively the local suppliers by preventing them from establishing relationships with these hotel groups and create barriers to the development of local supply chains while limiting the integration of local businesses into the broader tourism economy.

In fact, Pirnar (2016) mentions several positive as well as negative impacts caused by the operations of the hotel chains in the destination. On the positive side, they can bring significant tourism revenue and increase the overall income level in the area. Moreover, they serve as a significant source of foreign exchange earnings and provide numerous direct and indirect employment opportunities for local people, including both qualified and unqualified positions.

Another important aspect for the local embeddedness of chain hotels is that they also contribute to regional and local economic diversification, with staff salaries stimulating the local economy through a multiplier effect (Pirnar, 2016).

Furthermore, they encourage the development of tourism-related infrastructure and facilities, improve management productivity and efficiency, and positively impact the quality of life in the destination (Dogru, et al., 2020). Additionally, chain hotels can support the sales of locally produced art, handicrafts, and creative projects, increase entrepreneurship, and help destination management organizations with promotional efforts (Mbaiwa, 2017).

They are also found to increase the host destination's competitiveness and provide part-time employment opportunities for local training professionals, and it is also claimed that hotel chains are increasingly recognizing the significance of supporting local businesses and economies (Pirnar, 2016). This awareness drives them to establish strong connections with local food and beverage suppliers.

Movements such as slow city and slow food, along with a focus on organic farming, sustainable hotel management practices, and enhanced farmer-to-hotel supply chain policies, have led to the greater use of locally produced foods in hotel chain services (Alonso, 2010; Thomas-Francois, et al., 2016). In addition, hotel chains are placing more emphasis on sustainable and efficient operations. Many hotel companies now incorporate economic feasibility into their sustainable development strategies, aiming to provide greater value to shareholders and guests. This is achieved through continuous innovation, corporate social responsibility initiatives, and the adoption of sustainable development principles, which increase revenues and efficiency while reducing costs (Blake, et al., 2006). In other words, sustainable and innovative operations by hotel chains are typically believed to lead to improvements in economic benefits (Khunon & Muangasame, 2013).

However, chain hotels can also have negative impacts as indicated by Pirnar (2016). One of the main negative impacts is economic leakage, where monetary assets leave the local economy during the importation of goods and services necessary for hotel operations. This includes raw materials for construction, daily supplies, and the employment of foreign staff, whose salaries are often remitted to their home countries (Britton, 1982). Hence, such practices naturally limit the positive impact on the local economy, as these hotels may rely heavily on imported goods rather than local suppliers.

2.3.2.2 Independent hotels

In contrast with chain hotels, independent hotels do not belong to any larger parent company or brand (Pirnar, 2016). Individual entrepreneurs or small business owners operate such properties and less than half of the worldwide room supply belong to this hotel category (Sorokina, et al., 2016). As a result, they have more freedom in how they operate, while they must also bear the financial risks and responsibilities that come with running a business on their own (Komlósi & Gyurácz-Németh, 2014). Notwithstanding, despite such flexibility in how they operate, they may also have fewer resources at their disposal which affect their decision making in terms of procurement practices (Kamann & Gyurácz-Németh, 2023).

Feinstein, et al. (2017) also state that independent hotels operate with a decentralized procurement system which allows them greater flexibility in sourcing supplies and services. Unlike chain hotels, independent hotel managers make procurement decisions based on their specific operational needs and local market conditions.

Without a central purchasing office or commissary, such hotels often rely more on direct relationships with local suppliers, enabling them to customize their offerings to better reflect regional preferences and enhance the guest experience. Such a localized approach can establish stronger ties with the community by supporting small businesses and integrating local products into hotel operations, increasing their local embeddedness levels. However, the absence of bulk purchasing power and corporate-negotiated contracts may result in higher procurement costs and greater variability in supply quality (Feinstein, et al., 2017).

Furthermore, on the one hand, chain hotels, especially those operating under franchising models can tend to prefer locations where hotels from the same country of origin are concentrated with the aim of better assimilation with their "compatriot hotels" (Woo & Sung Gyun, 2020). Therefore, such focus on global branding as well as standardized practices may limit the reliance of chain hotels on local suppliers or community partnerships and reduce their operational ties to the local economy.

On the other hand, local independent hotels, with more limited resources, may prioritize cost efficiency and long-term financial sustainability which usually necessitate deeper engagement with local networks in order to achieve cost savings and build long-term resilience. Hence, such smaller hotels are more prone to adopt practices that align with their financial capabilities and sustainable growth (Khunon & Muangasame, 2013). This contrast shows how ownership structures (chain versus independent) of hotels can affect their degree of local embeddedness.

Henceforth, independent hotels generally benefit from greater flexibility in procurement than chain hotels, which often must adhere to quite strict corporate policies. Their decentralized decision-making allows them to connect quickly to local market conditions and source from local suppliers more easily, meaning unlike chain hotels, which follow standardized procedures, independent hotels can customize their supply chains to reflect local culture and preferences (Kamann & Gyurácz-Németh, 2023). Such adaptability also strengthens ties with the local economy, supporting local businesses and advancing economic growth (O'Neill & Carlbäck, 2011; Adiyia & Vanneste, 2018).

2.3.3 Airbnbs as part of the accommodation industry and their regulation

The sharing economy is recently growing as a result of economic, social, and technical developments in the society (Mody, et al., 2017). In this regard, introduction of Airbnb is without a doubt one of the most significant and revolutionary recent events in the global tourist industry (Guttentag, 2019; Smith, et al., 2023). O'Regan and Choe (2017) argue that the sharing economy has the potential to be as transformative as the industrial revolution. The author adds that by enabling underutilized assets, it reforms consumer and business models, therefore encouraging economically sustainable marketplaces.

In general, Airbnb has experienced outstanding growth since its start, currently having over five million hosts worldwide. In 2024, travelers booked more than 490 million Airbnb stays,

which is almost twice the number of travelers from 2018. Tourists often choose Airbnb for its affordability, prime locations, authentic local experiences, and home-like amenities, contributing to the company's global revenue, which surpassed USD 11 billion in 2024 (Statista, 2025a).

Having established above, it can be firmly stated that Airbnbs capture an important place in the modern accommodation industry due to their overall size in terms of generated revenues as well as unique offerings, however, they possess distinctive aspects when compared to hotels, which is discussed in detail in below paragraphs.

2.3.3.1 Comparison of Airbnbs and hotels

In general, the business models of Airbnb and hotels are claimed to be different (Yeon, et al., 2020). Thus, hotels typically own or lease properties and rent out rooms on a nightly basis to guests. They also offer extra services like room service, housekeeping, and concierge services. Airbnb, on the other hand, is a platform that connects people who are looking for a place to stay with people who have an extra room or property to rent out (Sthapit & Björk, 2019). Rather than owning or leasing property, Airbnb earns money by taking a percentage of each transaction completed through the platform (Morgan Stanley, 2015; Dolnicar, 2017).

Furthermore, Airbnb provides a broader range of lodging options, ranging from private rooms to entire apartments and houses, whereas hotels typically only provide traditional hotel rooms (Forgacs & Dimanche, 2016). Hence, while both hotels and Airbnbs provide lodging options, their business models and experiences for travelers differ (Zervas, et al., 2017). Wirtz (2021) states that Airbnb's platform-based business model contrasts sharply with the pipeline structure typical of traditional hotels like Marriott. Thus, unlike Marriott, which owns or leases properties and has direct control over its operations, Airbnb functions as an intermediary, connecting property owners with guests without managing any property directly. Such a model allows Airbnb to operate with a structure that needs minimal levels of assets and at the same time scales quickly and provides a broad range of accommodation options, including entire homes, which appeal to guests seeking unique and localized experiences (Albaladejo & Díaz-Delfa, 2020).

Research shows that short-term rental platforms like Airbnb benefit from lower fixed costs compared to hotel chains but rely heavily on network effects and user engagement for success. Thus, Airbnb's approach has allowed it to challenge conventional hotels, attracting travelers seeking affordable alternatives with local flair (Wirtz, 2021).

By and large, one of the main reasons for the success of Airbnb might be its unique value proposition: "Live like a local" (Oskam & Boswijk, 2016, p. 26). Based on the previous statement, it can be stated that Airbnbs increase the usage and purchase of local products as both hosts and their customers are more likely to interact with the local communities (Yannopoulou, et al., 2013). This can eventually affect the local economic impact of such short-term rentals.

Therefore, it can be concluded that in the same way with what has been discussed about the Airbnb guests in the section *2.2 Tourist expenditure*, Airbnbs not only are capable of improving tourists local spending, but also the local procurement of the hosts due to the place attachment

(Relph, 1976; 2008; Shamai, 1991). This, accordingly, is an influencing factor in their societal embeddedness.

Also, Airbnb properties are usually less expensive than hotels, especially in popular tourist destinations (Hajibaba & Dolnicar, 2017). Despite being cheaper, Airbnb properties are generally more centrally located if compared with hotels, which can be advantageous for travelers (Yeon, et al., 2020).

Furthermore, it is claimed that Airbnb properties are more unique and provide a more authentic experience than hotels (Garau-Vadell, et al., 2018) which might be a reason that they were not found to be competing with hotels as they have a different clientele also due to dissimilar seasonal demand patterns (Sainaghi & Baggio, 2021).

In addition to abovementioned differences with the hotels, overall impact of Airbnbs may also depend on several factors, such as ownership types, which are discussed in the subsection below.

2.3.3.2 Airbnb host heterogeneity

If one takes a look at the website of the Airbnb (Airbnb, 2025a), it self-describes itself as *"the platform offers an online venue that enables users ("Members") to publish, offer, search for, and book services".* It is obvious from the aforesaid statement that Airbnb is only a platform, not the owner of the estates, hence the services are offered merely by the hosts, who are the owner of the accommodations.

Accordingly, although Airbnbs are treated as a homogenous category in literature (Guttentag, et al., 2025), it is worth considering the differences between the ownership types among them. Thus, the "host" of a space may either be present at the time of the rental or be absent, possibly on vacation or even managing the space as a permanent rental (Guttentag, 2015). Hence, those apartments that are managed by local hosts are claimed to be more deeply integrated into residential areas which potentially increase community participation (Levendis & Dicle, 2016) while the exact opposite can be stated for the absentee-owned, commercial properties, which are becoming more and more prevalent on the platform in recent years (Demir & Emekli, 2021).

This difference, which fundamentally shapes host behavior, is becoming consistently recognized in recent tourism literature through distinctions such as multi-host versus single-host (Boto-García, et al., 2021; Lee & Kim, 2023; Guttentag, et al., 2025), landlord-owned versus absentee-owned (Guttentag, 2015), or non-professional (collaborative) versus professional (commercial operated) (Gunter, 2018; Gyódi, 2023; Herrero Ballesta, 2024) Airbnb properties.

In addition, collaborative Airbnbs are also found to be usually located outside the central and crowded areas of cities, hence, attracting those tourists that are interested in a more local and authentic experience (Herrero Ballesta, 2024). This is fundamentally important in terms of dealing with current housing market issues in many cities.

Such distinctions therefore imply that local economic and social impacts of Airbnb apartments cannot be fully understood and regulated without considering host ownership models, which may directly impact the positive effects of such accommodations.

Having stated that, it should be argued that categorizing hosts by ownership structure and local presence, specifically as landlord-owned versus absentee-owned can provide a more robust analytical perspective than classifications based solely on listing volume or perceived professionalism. Thus, while abovementioned prior studies often used the number of listings to infer host type, such proxies can mask important variations in procurement behavior, community integration, and local economic embeddedness.

Hence, such a framework that considers ownership and presence is capable of better capturing how value circulates locally, as it reflects not just scale of operations but also the host's physical and social ties to the destination. This approach therefore enables a more precise assessment of Airbnbs' differentiated socio-economic impacts, which aligns the theoretical classification with observable, policy-relevant behaviors.

Below subsection addresses the concerning points about the Airbnbs as well as the regulatory responses by the governing authorities.

2.3.3.3 Community concerns and regulatory responses

While the positive impacts have been established in above subsections, it is equally important to understand the negative effects that Airbnb properties have on a region. First of all, unlike other accommodations such as hotels, Airbnbs might create a large number of unconventional bed nights which in turn is quite arduous to trace (Contu, et al., 2019). Guttentag (2015) also describes the arrival of Airbnb to the accommodation sector as "the rise of an informal tourism accommodation sector". In this regard, one important drawback of hidden tourism is that it can have a detrimental impact on tourist development strategies by government authorities (Guizzardi & Bernini, 2012) as it becomes an extra burden to estimate the precision of any regulatory action in reality once applied.

Parties, noise, garbage buildup, traffic and parking problems are all common daily inconveniences connected with Airbnb (Guttentag, 2017). Moreover, the increasing appearance of Airbnbs in certain tourist city neighborhoods initiates the process in which the residential rental housing market is being reduced in favor of a tourist rental housing market, which makes it potentially difficult for residents to access housing, not to mention the increase in the overall housing prices. (Picard, 2010; Álvarez-Herranz & Macedo-Ruíz, 2021). Having stated that, Mody et al. (2017) consider that locals' opinions regarding Airbnb are not as unfavorable as media reports usually indicate.

In addition to all above, it is also a noteworthy aspect that as Airbnb is an online platform, it uses webservers which consume a lot of electricity (Mitchell & York, 2020). This factor adds to the total carbon dioxide pollution as a result. Hence, according to the statements above, it can be said that it is still a big debate whether local neighborhoods benefit or suffer from the existence of Airbnbs.

Overall, despite Airbnbs being considered as a revolution in the tourism industry (O'Regan & Choe, 2017) by enabling the sharing economy for many regions, it is essential not to disregard its abovementioned negative effects. Conversely, it is also argued that the platform effectively regulates itself (Nieuwland & van Melik, 2018). Thus, technically, Airbnb operates as a profit-driven enterprise with a hierarchical, linear organizational structure (Forgacs & Dimanche, 2016). Its platform utilizes user interfaces, algorithms, and software to manage what is shared, who it is shared with, and the intended purposes (Wirtz, 2021). Benefiting from the network effect, although Airbnb becomes increasingly valuable and useful as more people join the platform, this growth also consolidates power and control of the Airbnb portal over its users, leaving hosts with minimal influence on the platform's rules, algorithms, and even their reputation (Gurvich, et al., 2019).

To reiterate, the platform's ease of listing properties has naturally led investors to acquire properties in popular tourist areas, gradually pushing out local residents and increasing rent prices. This has given rise to the so-called "Airbnbisation" effect, hence, growth of "tourismphobia", which significantly transformed the landscape and dynamics of cities across the globe (Celata & Romano, 2022). In response, several cities endorsed regulations (Nieuwland & van Melik, 2018; von Briel & Dolnicar, 2021), although scientific debate on such regulations are limited (Yeon, et al., 2022). These regulations evolved over time depending on the extent how cities were regulating short-term rentals prior to the introduction of Airbnbs, as described in *Figure 7.*

In this context, von Briel and Dolnicar (2021) categorize cities into four types based on their regulatory approaches to Airbnb and other short-term rentals. Liberal cities (e.g., San Francisco, Hobart) initially debate strict regulation but adopt relaxed policies after observing the results, hence relying mostly on self-regulation. Moderate cities (e.g., Paris, Vienna) introduce restrictions and tax systems after observing the impacts. Moderate-collaborative cities (e.g., Amsterdam, Barcelona) work closely with Airbnb and other stakeholders from the outset, adjusting policies regularly as part of tourism planning. Protective cities (e.g., Tokyo, London, New York, Berlin) enforce strict controls on short-term rentals, such as limits on days rented or complete bans on absentee-owned listings.

As can be seen from *Figure 7*, in major cities regulations generally evolve to be stricter by time. Thus, in recent years, New York City have applied one of the most conservative regulations by requiring Airbnb hosts to register with the Mayor's Office of Special Enforcement and meet specific requirements, such as residing in the rental property and hosting no more than two guests at a time (NYC Office of Special Enforcement, 2022). As a result, by 2024, nearly 90% of New York's Airbnb listings had shifted to long-term rentals (Statista, 2025a). Similar recent strict regulations have been applied in London (Mayor of London - London Assembly, 2025), Paris (SortirAParis, 2024), Vienna (Fellner Wratzfeld & Partner Rechtsanwälte, 2024) and Budapest (Ministry of National Economy, 2024) as well as planned to be implemented in Barcelona (Bloomberg, 2024).

In tourism literature, argumentation for Airbnb regulation is not unified, thus, while Herrero Ballesta (2024) and (Drabancz & El-Meouch, 2022) propose strict regulations for certain Airbnbs, von Briel and Dolnicar (2021) suggest that especially in destinations where tourism demand is high enough, regulating short-term rentals generally only leads to temporary reductions in listings, as platforms and hosts often adapt to the rules over time.

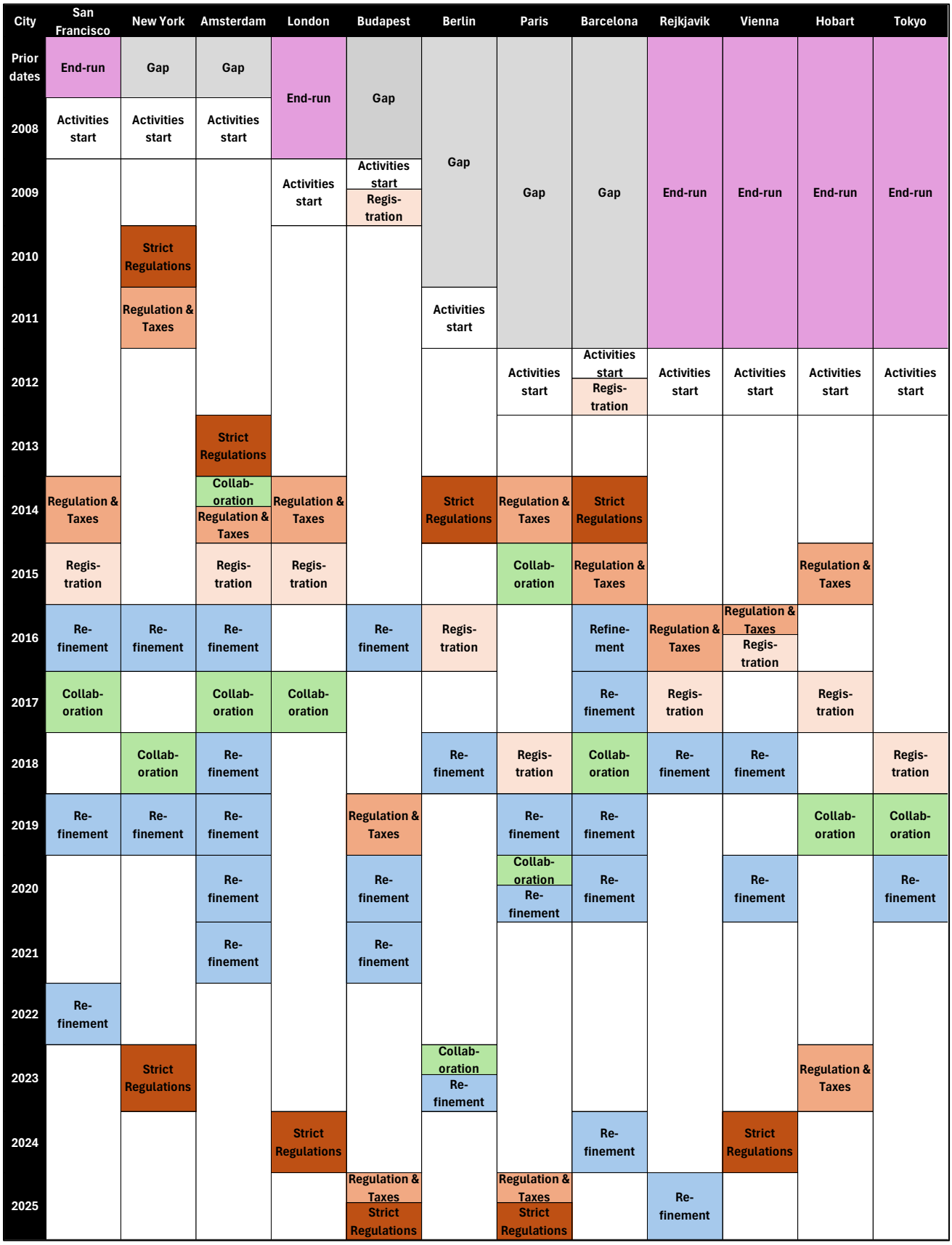

Figure 7. Evolution of Airbnb regulation

Source: Own updated edition of the original figure from von Briel and Dolnicar (2021)

In the same vein, Hübscher and Kallert (2023) believe geographical restrictions can raise the number of listings in surrounding districts of cities. Moreover, Falk and Scaglione (2024) found that the performance of individual rooms that are hosted by the landlord living in the apartments during the rental has seen benefits of regulations in Geneva while underlining that this does not mean that such rooms are substitutes for whole flats and houses being rented.

Considering all the above, it can be firmly stated that constant observation is essential in order to understand and better regulate the sharing economy in the accommodation industry especially considering the heterogeneity of such accommodations. However, municipalities usually do not have enough data to know where and how to regulate as Airbnb is usually not willing to share complete data sets which are the most valuable and confidential assets for the company, resulting in failure of governance (Smigiel, 2020; Bei & Celata, 2023).

2.3.4 Conclusion for the accommodation services in tourism

This section has demonstrated that accommodation providers are important parts within tourism filières, and that their organizational form, procurement authority and regulatory context materially shape how tourism value circulates at the local level. Hotels and short-term rentals should therefore be understood not simply as places that host visitors but as governance units that mediate flows of goods, services, labor and capital into, as well as out of local destination economies.

Therefore, two analytically useful contrasts emerged from the review. Firstly, chain hotels typically operate through centralized purchasing systems, brand-level procurement protocols and economies of scale. These features support service standardization and cost efficiency, however, can constrain the ability of individual properties to source from closer, small-scale local suppliers. Conversely, independent hotels, characterized by decentralized decision-making and greater managerial autonomy, are in a better position to improve direct supplier relationships and to design procurement to local product availability and guest preferences.

Secondly, Airbnbs introduce a different set of dynamics. Thus, their platform model reduces fixed capital requirements and promotes rapid scaling, while host heterogeneity produces widely varying degrees of integration with local supplier networks.

Next, such differences have clear implications for local embeddedness. Network embeddedness is advanced where procurement and contracting practices privilege local suppliers and where local hosts or management discretion enables adaptive sourcing. Moreover, territorial embeddedness is strengthened when accommodation is spatially integrated into communities through location, guest behavior, or supplier geography. Hence, such spending is likely to circulate locally rather than leak to external supply chains.

Lastly, the review also includes important moderating factors. Thus, product perishability, scale requirements (bulk purchasing), quality standards, and the reliability of local supply all affect whether an accommodation establishment is capable of or willing to source locally.

All in all, the accommodation sector is an important part of tourism industry in terms of directing generated value towards inclusive local outcomes. In this regard, policy and governance also matter, thus regulatory regimes, data transparency, taxation, and incentive

schemes can either enable or inhibit local sourcing, while enforcement capacity and data access constraints often limit the efficacy of municipal policy responses to platform growth. Hence, understanding such dynamics is important for policymakers which aim to enable a balanced approach.

The following section provides information about the socio-economic impact of tourism and related previous research, also discussing the definition of "local" in the literature.

2.4 Socio-economic impact of tourism

In the scientific literature, tourism has usually been presented as a critical driving force in the economic development of any region (Sharpley, 2020). Pulina and Brida (2017) write that the tourism sector is based on four main production factors: physical capital (airports, ports, hotels, restaurants, roads etc.), human capital (education, skills and training), technology and environmental or natural resources. Hence, it is held as one of the major service sectors (Elgin & Elveren, 2024) as it can generate revenue through a variety of channels, including lodging, transportation, food and beverage, entertainment, and retail sales (Incera & Fernández, 2015).

To illustrate, the tourism and travel sector played quite an important role in the world economy by generating a total of 357million jobs as well as contributing 10.0% of the global Gross Domestic Product in 2024 (Statista & World Travel and Tourism Council, 2025). The sector is an important contributor to the global economy, generating billions of U.S. dollars each year. Thus, international tourist arrivals surpassed USD 1.4 billion in 2024 (Statista, 2025b) while total tourism-related spending reached USD 1.9 trillion (World Travel and Tourism Council, 2025).

In this regard, Andriotis (2002) considers tourism industry having a positive impact on regions by various ways, such as increasing the income of residents, supporting the state budget by enabling tax collection from the tourism businesses as well as providing additional workplaces for the locals.

Furthermore, Sirgy (2002) explains the local community and suppliers as external stakeholders, hence, business operations of the accommodation service providers ought to benefit those external stakeholders as well (Stieb, 2008) which will increase their local economic impact respectively. Accordingly, the industry is found to have sizable spillover effects on nearly every other sector in a given region or country (Mansfeld & Winckler, 2008). Thus, the industry has an indirect impact on the economy considering the aforementioned effects it has on other industries. Indirect contributions include higher revenues in the tourism filière, which can lead to increased income and spending in other industries. To be more precise, as a service industry, it has the capacity to significantly increase national and regional profits thanks to connected business activities which are generally referred as the multiplier effects in the scientific literature (Balaguer & Cantavella-Jorda, 2002). Consequently, increased tourism spending can boost other businesses in the region, in other words, the other parts of the tourism filière.

Therefore, the tourism sector is currently seen as a policy tool in order to control the future of different regions by supporting their economy (van Leeuwen, et al., 2009). Additionally, tourism can stimulate other connected businesses not only in direct (immediate spending by tourists on goods and services) but also in indirect (business-to-business transactions within

the supply chain) and induced (tourism sector and its supply chain employees' local spendings) ways (Vogel, 2021) causing positive economies of both scope and scale thanks to increased multiplier effects.

It is also worth noting that tourism has a positive impact on foreign currency reserves as it generates foreign currency through foreign tourist spending (van Leeuwen, et al., 2009). This can help to improve a country's trade balance and support economic growth.

Furthermore, development of tourism infrastructure, such as airports, highways, and public transportation systems can benefit both tourists and residents while also bolstering the growth of other sectors such as agriculture, manufacturing, and other services (Elgin & Elveren, 2024).

Conversely, Mitchell and Ashley (2010) mention in their book that: *"At a local level many local governments, non-governmental organizations (NGOs), and civil society organizations embrace tourism as a tool to facilitate local economic development. However, the empirical basis for making policy choices or recommendations often appears thin".* Another contradicting view in regard with the impact of tourism is by Mayer and Vogt (2016, p. 170): *"…more often than not these high hopes fall short and either the number of visitors or the resulting economic contribution or even both do not meet earlier expectations"* where authors point at study by Vogt (2008), Blake, et al. (2008) and Lehmeier (2015) who are supporting the same perspective.

Hence, if the tourism industry is not properly managed, it can have a negative impact on the economy and society. Overcrowding, environmental degradation, and cultural erosion are some of the negative consequences (Frent, 2016; Shahzalal, 2016). In this context, the main principle of the stakeholder theory which asserts that organizations must be concerned with more than just increasing corporate wealth (Miles, 2012) should also be considered. Therefore, resilient tourism practices are necessary in order to mitigate above-mentioned negative effects (Kaszás, et al., 2022) and maximize the tourism industry's discussed positive contributions to the economy and society.

To conclude, the tourism industry contributes significantly to the economy, and it is important for governments and industry stakeholders to collaborate properly in order to maximize positive contributions of tourism while minimizing its negative impacts.

2.4.1 Defining "local" in tourism and economic impact studies

One of the main dimensions of embeddedness has been mentioned as the territorial embeddedness in the section *2.1.2.3 Local embeddedness and relations within the tourism filière*, which necessitates defining the geographical limits of the term "local".

It is claimed that using local products not only benefits the local community in economic ways but also has a potential to decrease carbon dioxide emissions thanks to the decreased transportation in procurement (Hu, et al., 2015; Kaszás, et al., 2022). Similarly, Madarász, et al. (2021) suggest that tourism demand for local products can drive changes in land use, such as the expansion of lavender plantations around Balaton and bolster complete regional value chains that encompass production, processing, and sale as also discussed by Lee, et al. (2019). On the other hand, local products not only affect destination performance positively

(Csizmadiáné Czuppon, et al., 2015) but also enhances visitor satisfaction (Peštek & Činjarević, 2014), as well as loyalty (Kastenholz, et al., 2016). In addition, in Hungary, especially in terms of the foodstuffs, local products are also positively perceived as tastier, more natural, as well as more environmentally friendly which brings their reputation up in comparison with the imported goods (Szegedyné Fricz, et al., 2020).

Having established above, the term "local" in tourism and economic impact studies has been subject to various interpretations, influenced by geographical, social, and economic contexts. It is argued that there is no fixed, accepted and homogeneous perception of development of localities and regions, as it is socially determined by specific groups or interests in specific locations and time periods (Pike, et al., 2007). Therefore, definition of "local" may differ considerably depending on the context as well as area and can also change over time.

In this regard, early attempts to define "local" in tourism studies often adopted arbitrary geographical limits, for example, Lundgren (1975) defined "local" as within 25 miles (approximately 40 km) of a resort, a definition that fits with Butler's (1980) concept of the tourist area life cycle. However, this subjective distance measurement has been critiqued for not considering the nuances of local economic interactions (Din, 1992). Din (1992) further argued that "local" should be restricted to entrepreneurs who reside permanently in or near the resort. This definition, however, faces challenges in areas where resident entrepreneurs recently relocated, bringing intense external influences (Ioannides & Debbage, 1998).

Moreover, in most economic impact studies, the term "local" usually refers to the immediate geographical area where economic trade happens and where the benefits are assumed to be preserved (Bouncken & Kraus, 2021). This can include the use of local suppliers, employment of local staff, and contributions to the local economy through taxes and spending (Müller & Jansson, 2007).

Similarly, in the Hungarian context, Tóth-Kaszás and Keller (2018) defined local products as those sold through short supply chains, specifically within the radius of 30 km, ensuring added value remains in the region, which is in line with the short supply chains concept also researched by Gusztáv, et al. (2019). In the same vein, Fehér (2007, in Madarász, et al., 2021) states that local goods are typically produced in small volumes linked to the region, distinguishing them from mass-market products, while Gonda, et al. (2021) specify that a local product must contain at least 51% added value from local raw materials or workforce. Having stated that, Madarász, et al. (2021) relied on perceptions of potential demand for local products.

To recapitulate, such a variety in terms of definitions of "local" illustrates the difficulty and context-specific nature of determining what is "local" in tourism research. Hence, these varied definitions emphasize that "local" in tourism research is multi-dimensional. It involves proximity-based measures, ownership and value-added criteria, and the connected social, economic, and environmental outcomes of local sourcing and consumption. These distinctions must guide any empirical investigation of local embeddedness to ensure contextual relevance and methodological accuracy. Accordingly, several studies dealing with the local impact of tourism and accommodation industry are discussed in the subsection below.

2.4.1.1 Tourism economic impact studies

Economic tools have been extensively used to assess tourism's impact on the economy where studies often move ahead of basic arrival numbers and aggregate spending statistics to model the expansive associations caused for long-term economic growth (Mitchell & Ashley, 2010). Recent research has examined such effects on specific demographic groups and how policy variables influence benefit distribution (Comerio & Strozzi, 2019). Macro-economic trends have also been investigated using econometric models and cross-country regression analysis to identify correlations between tourism growth and other economic changes over time where the relationship between tourism growth and variables such as income levels, GDP growth volatility, and the competitiveness of non-tourism exports have been examined (Algieri, 2006).

Constructing economic models for specific destination economies is another approach to assessing the impact of tourism demand on other sectors and economic variables. These models range from straightforward Input-Output (I-O) models to more complex Social Accounting Matrices (SAMs) and Computable General Equilibrium (CGE) models (Kweka, et al., 2003; Sahli & Nowak, 2005).

I-O models analyze interconnections between increased tourism demand and other sectors, often used to calculate "tourism multipliers" (Fletcher, 1989). Input-Output method has been applied to quantify the impact of tourism in regional studies by several authors such as Kim and Kim (2015), Tohmo (2017) and Kronenberg, et al (2018).

Furthermore, other modelling methods, such as, social account matrix (SAMs) (Pyatt & Round, 1985), computable general equilibrium (CGE) models (Dwyer, et al., 2010) and Solow-Swan modelling (Solarin, et al., 2023) have also been used to analyze the economic impact of tourism industry. While these methodologies effectively investigate tourism's broad macro-level economic effects, none of the above studies included Airbnb-specific data, likely due to the limited availability of disaggregated information required for such data-intensive analyses.

The research of Kim and Kim (2015) can be shown as an exception in this regard, where the authors make distinction between the "hotel industry" and the "other accommodation services" based on the North American Industry Classification System (NAICS). Notwithstanding, while they found differing local engagement across sectors, the "other accommodation services" category combines guesthouses, hostels, and other niche lodgings, which is an overly broad grouping that complicates platform-specific impacts and importantly, does not explicitly include peer-to-peer accommodations, such as Airbnbs.

Overall, while I-O, SAM, and CGE models are widely used for tourism impact analysis, their application at the sub-national level has several drawbacks. First, these models are highly data-intensive, hence, require detailed inter-industry transaction tables, household accounts, and sector-specific coefficients that are rarely available for small regions or for disaggregated accommodation categories. In many Central and Eastern European contexts, regional I-O tables either do not exist or are outdated, which constrains model reliability. Second, these methods usually require strong assumptions about fixed technical coefficients and linear relationships between sectors, which can misrepresent the flexible and seasonal nature of tourism supply chains. Third, geographical aggregation is an inherent limitation, thus, multipliers are sensitive to the choice of spatial boundaries, yet most available data are compiled at national or large-

regional scales, which makes it difficult to capture the retention patterns within specific destinations.

On the other hand, there have been a number of non-multiplier studies that have examined the retention capability of supply chains of accommodations and their respective economic impact. To illustrate, Andriotis (2002) surveyed 52 Crete hotels of varying sizes by asking managers to estimate the percentages of their local procurement across several categories such as fresh food, non-food groceries, linens, kitchenware, furniture, building materials etc. The author found a clear negative relationship between the hotel size and local sourcing rates, which means smaller hotels consistently purchased a higher proportion of their inputs locally. Naturally, the study did not include Airbnb and other short-term rentals apartments as the portal has only been created in 2008, which leaves open the question of whether decentralized accommodations exhibit different local embeddedness patterns. This shows the need to extend segmentation approach of Andriotis using more contemporary embeddedness metrics while also incorporating short-term accommodations.

Another example would be the research by Mitchell, et al. (2014) regarding the economic effect of hotels in the town of Sarigerme, Turkey by applying value chain analysis (VCA). The authors concluded that although at a macro level the country benefited significantly, the same could not be said in terms of the region. While VCA maps broad stages (e.g., inbound logistics, operations, outbound logistics), it doesn't disaggregate by input type, such as food, linen, furniture, services etc. which limits understanding of economic leakages for the region. Similarly, Telfer and Wall (2010), have also conducted a study regarding the local food purchases of three Indonesian hotels and according to the results, the bigger star hotels were discovered possessing quite considerable connections with their respective local supply networks while the smaller non-star hotel was almost entirely reliant on the products of local suppliers. However, the research does not account for other procurement areas, such as services, construction materials, or furnishings, which are also necessary for understanding the full economic impact of the accommodation establishments on local economies.

In the Hungarian context, Lőrincz, et al. (2020) applied a co-creation approach with cycling tourists and found that involving visitors in designing routes and services created a "win–win" for tourists, local residents and planners (e.g. by raising visitor satisfaction and dispersing tourism flows). In the same vein, Madarász, et al. (2021) report that around two-thirds of leisure travelers to Lake Balaton purchased local food products (far more than non-food items), indicating a strong preference for local edible goods. A recent study of Airbnbs in Budapest by Smith, et al. (2023) similarly documents diverse local effects, however, in the same vein with the studies above, does not measure procurement patterns or economic leakages. In one multi-sector example, Karimov, et al. (2023) used local multiplier approach to estimate economic impact of hotels in Veszprém district, finding an induced (LM3) multiplier of 1.96. However, the very tight geographical focus of the study limits its generalizability, in addition, it did not take Airbnb apartments into account in calculated multipliers.

Moreover, Tóth-Kaszás and Keller (2018) surveyed local producers around Kaposvár and Nagykanizsa to assess their willingness to participate in a thematic local product route. Their quantitative findings confirmed moderate support for such collaboration and demonstrated the potential role of coordination structures. However, while the study is very valuable for

understanding attitudes of local producers in Hungarian regions, the study does not measure actual economic impacts.

Furthermore, the above paragraphs show that there exist a number of studies dealing with the effect of tourism, as well as hotels and other traditional accommodation establishments. Accordingly, Airbnbs have also become one of the most debated topics in recent years in tourism literature (Smith, et al., 2023). Although previously Guttentag (2019) and Oskam and Boswijk (2016) stated few research studies have investigated Airbnb-specific impacts on localities, arguing that the main reason behind this being the sharp growth of Airbnb and other similar initiatives is still too recent, currently, there are a number of valuable research studies about the Airbnbs' economic contributions.

One prime example can be the one by Lee and Kim (2023) who emphasized the heterogeneity of Airbnb units and their differing economic impacts on local communities, focusing primarily on the housing market effects such as impact on rent, housing value and the number of households in relative poverty. The authors indicated that increased Airbnb listings resulted higher rent prices and housing prices in New-York city, which agrees with the results of previous studies, such as Horn and Merante (2017) and Ram and Tchetchik (2022). Similarly, Herrero Ballesta (2024) analyzed effectiveness of regulations in terms of considering whether an accommodation is collaborative or professional and suggested bolstering the former while restricting the latter. However, these studies focus exclusively on housing-market impacts and do not examine Airbnbs' local procurement patterns or their broader effects on regional supply chains and economic leakages.

Furthermore, Cheng, et al. (2020) attempted to measure direct, indirect and induced carbon footprints of Airbnbs in the city of Sydney, Australia, relying on the income of the hosts, household expenditure data and their estimated re-spending patterns. While the study considered the carbon footprint of web servers as well, which is noteworthy, the main lacking aspect of this study might be the fact that it focuses only on the hosts, disregarding the guests' carbon footprint which definitely deserves attention. Research conducted by Levendis and Dicle (2016) also measured the economic effect of Airbnbs, providing insightful I-O multipliers of the industry on the economy of New Orleans. However, the study treats all Airbnb listings uniformly and does not examine distinctions by ownership type, limiting the conclusions.

Hidalgo, et al. (2024) used detailed data and found that short-term rental listings significantly boosted restaurants and tourism-sector jobs in Madrid. However, by focusing on amenities, such as F&B establishments and employment counts, their analysis does not assess if those gains are retained locally or leak out through supply chains. Likewise, Hall, et al. (2022) offer a broad review of socio-economic and spatial effects of Airbnbs, however, does not empirically measure any local procurement or leakage. Similarly, Gössling, et al., (2025) measured the economic leakages due to the commissions of the booking platforms in Norway, including Airbnb and estimated 2% loss in this regard from the accommodation revenue. While the authors suggest alternative transaction models to reduce leakages, the main limitation of the study is that it does not consider roles of platforms among subsectors of tourism industry, such as transport, F&B, and other tourist activities.

All in all, in the tourism literature, a growing number of studies have highlighted heterogeneity within Airbnb hosting models, including differences in spatial patterns or housing market

impacts (Horn & Merante, 2017; Ram & Tchetchik, 2022; Gyódi, 2023; Lee & Kim, 2023; Herrero Ballesta, 2024), pricing structures (Boto-García, et al., 2021), guest experiences (Guttentag, et al., 2025), and host profiles (Gunter, 2018). Notwithstanding, none of the above-mentioned studies investigated to what extent host and guest spending is sourced and retained locally versus leaked out.

Hence, although recent work shows important local effects of Airbnb, such as impacts on amenities and labor markets, the issues of local embeddedness and economic retention remain largely unaddressed. Moreover, no research has yet compared whether the decentralized structure of Airbnbs result in stronger local economic integration in comparison with the traditional hotels, nor examined how different Airbnb ownership models affect economic retention in tourism destinations.

2.4.2 Conclusion for the socio-economic impact of tourism

To recapitulate, it can be concluded based on the review in this section that tourism is an important part of national economies due to its role in economic growth, employment, and other aspects of regional development. However, its impact is complex considering the challenges that tourism brings to areas, such as being a source of disturbance for local neighborhood or environmental challenges.

It is evident that, at the macro and regional levels, tourism generates jobs, foreign exchange and fiscal revenues, and stimulates connected sectors through direct, indirect and induced channels. In this regard, standard modelling approaches (I-O, SMA, CGE) have been useful for quantifying these channels and for deriving tourism multipliers. However, they also carry important assumptions, such as fixed technical coefficients and aggregation of sectors that constrain their ability to capture place-specific leakage and retention capability dynamics.

Additionally, the review also demonstrates considerable heterogeneity in terms of the methods used in the empirical tourism research. Thus, while many studies measure aggregate economic impacts, far fewer disaggregate and analyze procurement patterns of accommodations that directly impact local sourcing. In particular, although Airbnbs have generated a large and growing literature, most empirical work concentrates on housing markets, spatial distribution and employment effects. Conversely, very few studies systematically measure how such accommodations affect local procurement practices, supply-chain retention or economic leakage. This gap is especially salient in Central and Eastern Europe, where institutional contexts, housing markets and supply capacities differ from the better-studied Western settings.

Overall, above discussion brings an important implication for tourism research. Hence, in order to understand local retention, there is need for micro-level indicators, such as procurement shares by origin, disaggregated non-accommodation as well as ownership-sensitive host typologies that are more capable of uncovering local embeddedness patterns than macro multipliers.

Overall, this review also identifies a fundamental research gap that while advanced models successfully measured tourism's macroeconomic imprint and recent work acknowledges Airbnbs' potential for localities, there is a lack of empirical understanding of how

accommodation typologies, particularly heterogeneous categories of Airbnbs affect local economies, especially in the underexplored Central and Eastern European countries.

To reiterate, the research gap, which is the lack of systematic, ownership-sensitive comparisons of procurement practices and tourist spending across accommodation types motivates the comparative methodological design of this dissertation.

In conclusion, net contribution of the tourism industry to local economy depends less on aggregate visitor numbers than on the structure of supply chains, the institutional capacity to govern tourism revenue growth, and the local production base that can capture tourist demand.

The following section discusses tourism industry in Hungary, including details about its accommodation sector.

2.5 Tourism and accommodation sector in Hungary

It is obvious that by joining the European Union in the year of 2004, Hungary have vanished its negative image of mystery as a place with a communist background and has become much friendlier and less hazardous destination, consequently, the number of inbound tourists arrivals grew considerably since then (Formadi, et al., 2017).

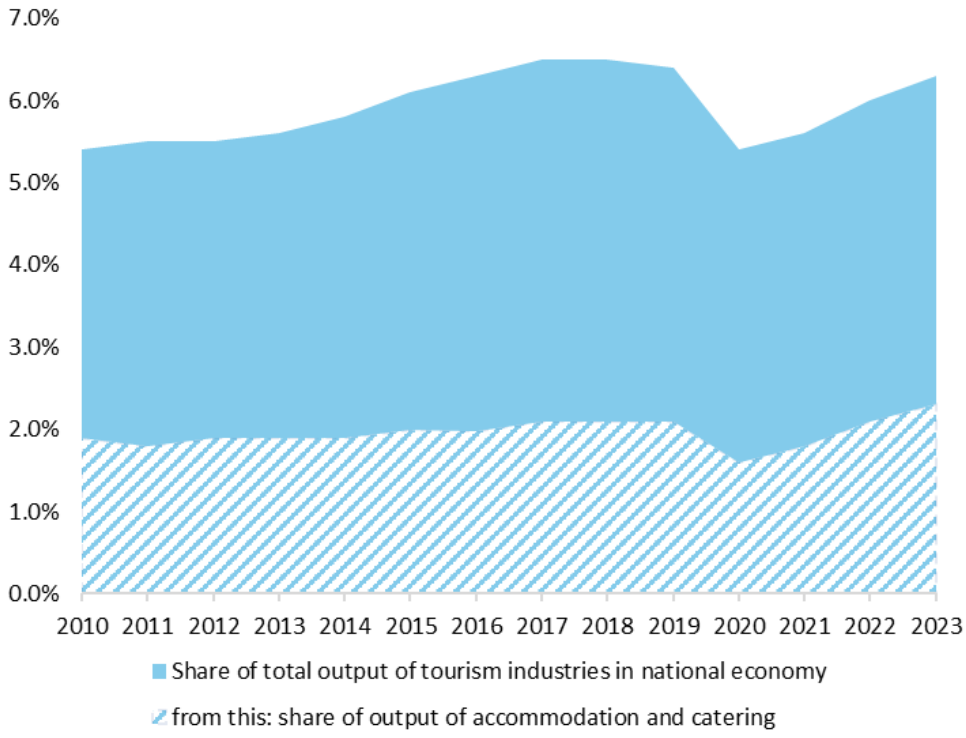

Figure 8. Share of tourism industry in Hungarian economy

Source: Own edition based on data from Hungarian Central Statistical Office (HCSO) (2025a)

Moreover, the international tourists' spending in the country increased by over five times between 2004 and 2023 (Hungarian Central Statistical Office, 2025a) which boosts the effect of the industry on the national economy.

Furthermore, the tourism industry is an important part of the Hungarian economy considering its financial contributions (Németh & Gyurácz-Németh, 2022). Thus, the *Figure 8* illustrate that in Hungary, the total output of the travel and tourism industry has contributed significantly to the GDP by making up 6.4% of it in 2019 (pre-Covid period). This share has naturally decreased during the Covid period due to the damage it has caused to the industry (Dániel, et al., 2021) and constituted 5.4% in 2020. Having stated that, contribution of tourism industry kept recovering in 2023 and reached around 6.3%, which is just under the 2019 levels.

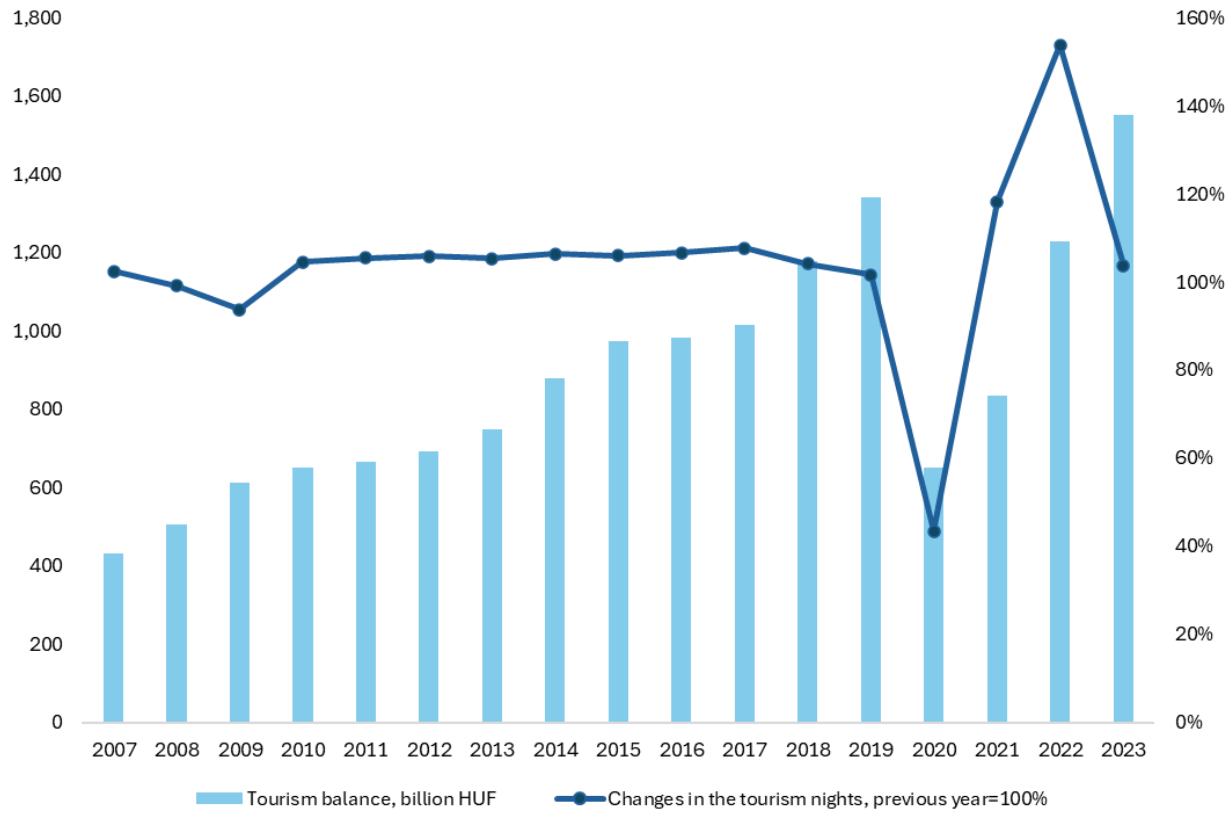

Figure 9. Tourism balance and changes in the tourism nights of commercial accommodation establishments

Source: Own edition based on data from HCSO (2025b)

Complementing the above-stated, *Figure 9* also demonstrates demand fluctuations through accommodation nights and tourism balance trends, particularly relevant given that accommodation and catering alone comprised over one-third (*Figure 8)* of total tourism output in recent years in the country. Altogether, the above indicators demonstrate the sector's resilience and important economic role.

Moreover, in spite of high seasonality (**Appendix 1**), what stands out from the *Figure 10* is that the room capacity of accommodations is increasing in the country, which is consistent with the growing post-pandemic demand as discussed previously.

Having stated that, it is obvious that, like any industry, the accommodation sector also requires proper certification. In Hungary, this is defined by law, with specific rules differentiating hotels from other lodging types. In general, accommodations are legally conceptualized as a building or portion of a building functioning as a separate unit, or a holiday boat used for offering accommodation services according to the act CLXIV of 2005 on trade (Natonal Library of Laws, 2005). Among other accommodation categories, a hotel, in accordance with the government decree no. 239/2009 (X. 20.) is classified as a specialized accommodation establishment that has a primary function of providing lodging services and it must contain a minimum of eleven guest rooms and offer supplementary services in addition to basic accommodation and breakfast provisions (National Library of Laws, 2009).

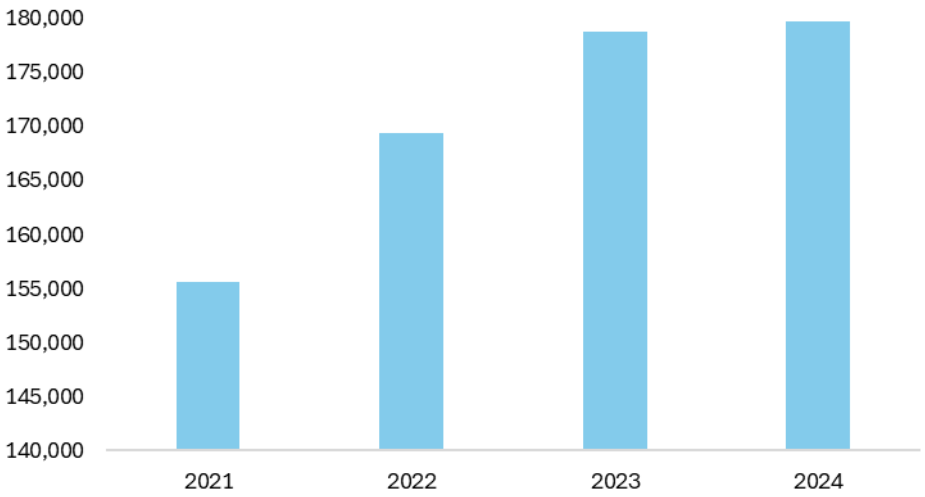

Figure 10. Number of available rooms at accommodation establishments in Hungary, 2021-2024

Source: Own edition based on data from HCSO (2025c)

Additionally, when it comes to the short-term rentals, although they recently became an important topic in Hungarian tourism, it is not a new phenomenon in the country, especially in Budapest the employment of the residential houses as tourist accommodation can be traced back as early as the 1960s (Michalkó, 2001, in Smith, et al., 2023). Nonetheless, in 2024 short-term rental market of Budapest, entire-apartment listings dominated, comprising 91% of offerings, while private rooms (8%) and shared rooms (<1%) represent a minority share (Airdna, 2025). This illustrates the accumulation of commercial Airbnbs in the city of Budapest, which rose housing concerns and hence led to the discussion of new regulations for the short-term rentals in the city.

In regards with the regulation of Airbnbs, all hosts already must register and report their business activities via the National Tourism Data Centre (NTAK) (Airbnb, 2025c). Furthermore, among rising concers, Hungary's Curia established precedent in 2016 by BH Resolution No. 117, which affirmed co-owners' rights to restrict non-residential activities in shared properties (Drabancz & El-Meouch, 2022). This ruling was later expanded through comprehensive 2020 legislation delegating short-term rental governance to municipal authorities (National Library of Laws, 2020). In the same vein, since 2021, Airbnb hosts are also obliged to gather data on guest identities and share this with respective Hungarian authorities (Airbnb, 2025c).

Moreover, in late 2024 a strict legislative framework for Airbnbs was introduced, and on justifying these measures, Hungarian government (Ministry of National Economy, 2024; Office of National Assembly, 2024) claimed that it treats short-term rentals as a housing problem rather than a tourism issue and the stricter regulations are imposed only to the Budapest area while not affecting rural settlements in rest of the country. Thus, the national authorities reason this by stating that over 40% of official guest nights in Budapest are realized in short-term rental apartments, which is far above the 28% average observed in regional capitals. As this result in squeezing out the local population by limiting housing options for them, an argument against the economic contributions of the Airbnbs naturally arise. It is also stated that the new law does not impose any restrictions on already registered and operating accommodation facilities, hence only the two-year suspension of issuing new permits came into effect from January 2025. The government therefore explains that home sharing has not been banned.

It is also worth to mention that the Hungarian government considers tourism to be a strategic priority in terms of future economic development of the country (OECD, 2018). In addition, one can understand from the *"National tourism development strategy – 2030"* by the Hungarian Tourism Agency (2023), that there are several prioritized aims for the development of the tourism sector:

- Emphasizing development of tourist destinations, destination-based approach, which means the key to increase Hungary's tourism potential lies in the tourism destinations themselves.
- The destination-based logic creates opportunities to define individual priorities in each tourism development area.

Hence, the strategic plan, which aims to increase the direct and indirect contribution of tourism to GDP to 16% by 2030, underlines the fact that while on the one hand the industry itself is growing as can be seen from the *Figure 9,* on the other hand, the needs and demands of the tourists and the tourism industry are not remaining unchanged over the years. The growth of the sharing economy, locality of tourism products as well as increased well-being of local communities are the main points of concern for governing bodies in this regard that increases the importance of proper regulation of the industry.

The next section introduces the Hungarian Hotel and Restaurant Association and discusses its role in the Hungarian accommodation industry.

2.5.1 Hungarian Hotel and Restaurant Association

The Hungarian Hotel and Restaurant Association (HHRA), known in Hungarian as *Magyar Szállodák és Éttermek Szövetsége (MSZÉSZ)* has been established in 1968 by 17 hotels. It is currently one of the main organizations representing the interests of the accommodation sector in the country.

By the end of 2024, the association has just under 700 members, over 460 of them being hotels (*Figure 11*), and 10 hotel chains which cover around 70% of Hungary's total hotel room capacity. Other members include independent restaurants, educational institutions, as well as industry partners (Hungarian Hotel and Restaurant Association, 2025a).

According to the HHRA (2025b), there are over 900 hotels operating in the country as of January 2025. However, access to complete registry data for hotel-classified accommodations is limited in the country. On the other hand, although its membership list does not cover full representation of all legally established hotel operations within the national accommodation sector, the HHRA maintains the most consistent dataset for such establishments.

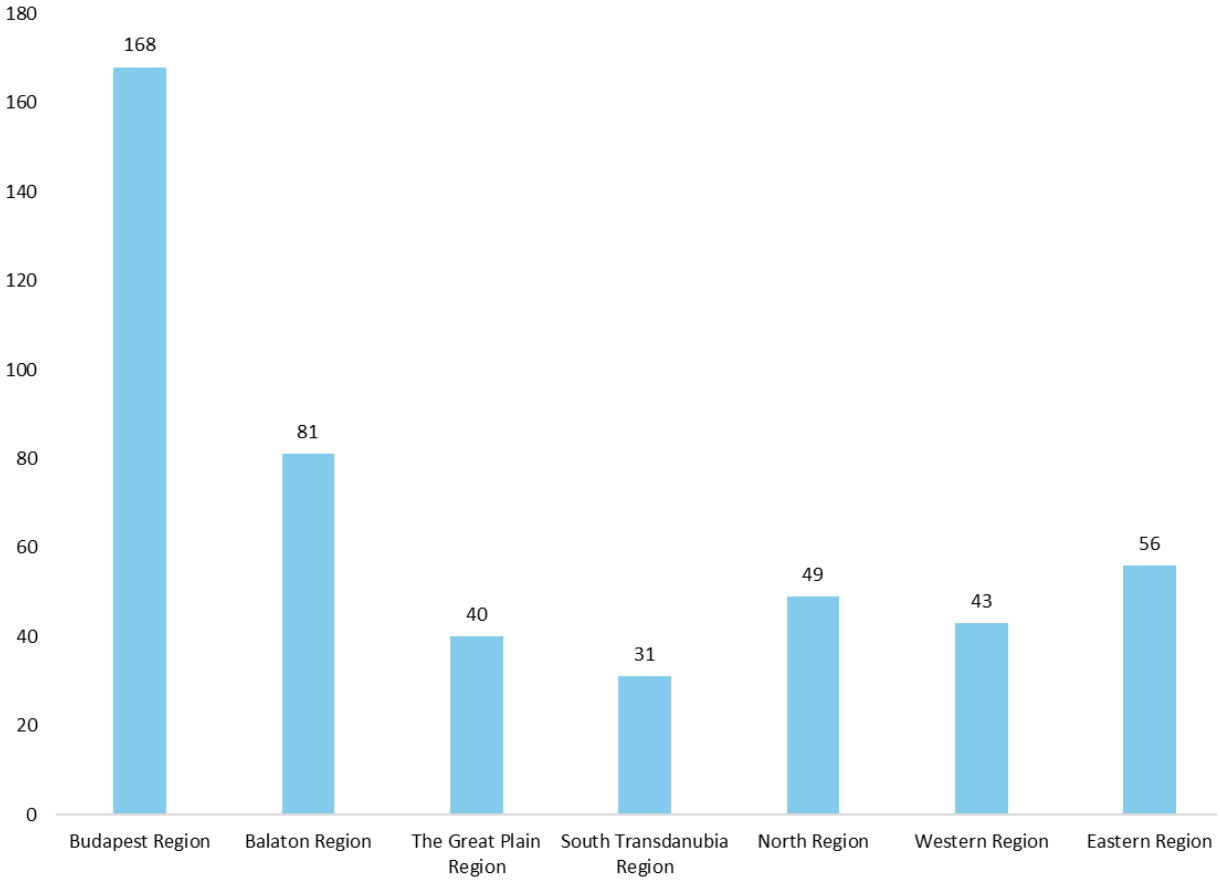

Figure 11. Number of HHRA members from Hungarian tourism regions

Source: Own edition based on data from HHRA (2024)

Hence, the association have an important role in terms of forming tourism landscape of Hungary. HHRA operates in seven regions and supports hotels and other accommodation businesses all over the country. As can be seen from the *Figure 11,* the Budapest tourism region represents the highest concentration of HHRA members (36%), while the Balaton region follows with just over 17% of total member hotels.

The association also supports fair competition and encourages the use of local products (Hungarian Hotel and Restaurant Association, 2023), which is important from the perspective of increasing the local embeddedness levels of hotels in Hungarian regions. Moreover, it promotes environmental sustainability through initiatives like its biyearly Green Hotels Award, which recognizes achievements of its members in energy and water conservation as well as waste reduction (Hungarian Hotel and Restaurant Association, 2025c).

The organization also advocates favorable economic and regulatory conditions to improve profitability for the members by promoting high operational standards. In this regard,

historically, in Hungary the stars that the hotels used to be given and managed by the "Hotelstars Union" system in cooperation with the HHRA (Gyurácz-Németh, 2018; Kovács, 2019), however, since the year 2022, the country started to prepare and employ a national classification system administered by the Hungarian Tourism Quality Certification Board which also reestablished HHRA's formal role in the new quality assurance process by granting it the authority to recommend members for classification committees (National Library of Laws, 2025).

In conclusion, by aiding the operational environment for the accommodation establishments, HHRA supports Hungary's tourism industry, which plays an important role in the national economy as discussed in above paragraphs.

2.5.2 Conclusion for Tourism and accommodation sector in Hungary

In Hungary, tourism is an important part of the economy as it contributes significantly to the national GDP and employment. Nevertheless, several issues, such as seasonal demand fluctuations and mass tourism necessitate better regulation, especially considering recent decades' developments in cities like Budapest show how important proper tourism planning is in terms of overcoming such obstacles.

The government aims to implement plans such as the National Tourism Development Strategy 2030, which focuses on developing tourist destinations while providing proper rules for steady tourism growth. The country is increasing its accommodation capacity, however, at the same time, it has introduced tighter rules for short-term rentals in Budapest to address housing concerns.

Therefore, Hungary provides an ideal setting for analyzing local embeddedness as unlike many Western European destinations where Airbnb impacts and hotel procurement practices have been extensively researched, similar investigations remain scarce in Central and Eastern Europe. Hungary's ongoing regulatory reforms, further make it a relevant case for exploring how traditional and platform-based accommodations are inclined to integrate with local economies. This research hence fills both a regional research gap and a policy-relevant need for evidence-based insights into CEE tourism markets.

In conclusion, Hungary's tourism sector is expanding, however, for this growth to last, the country needs flexible policies, better infrastructure, and smart regulations that benefit both the economy and local residents.

2.6 Summary of the literature review

The literature review chapter has systematically assessed the complex role of accommodation services in tourism. In this regard, their local embeddedness and economic impact has been focused on. Theoretical frameworks, empirical findings, as well as contextual insights have been integrated in the review, hence, this section provides a foundation for the research questions and methodology that will follow in the next chapters. Below paragraphs discuss how the sections of the literature review interconnect and contribute to the research objectives.

First section *2.1 Tourism, tourism filière and embeddedness* began by discussing definition of tourism by reviewing several outstanding definitions in the literature, which resulted in selecting Smith's (1988) and Leiper's (1979) definitions due to their comprehensive nature. This followed analyzing systemic nature of tourism through the filière concept. This framework depicts the interconnectedness of tourism actors, hence, helping to understand how accommodation providers operate within broader economic and social networks. Subsequently, the concept of local embeddedness was explored through the theoretical framework of Hess (2009), who defined it across territorial, societal, and network dimensions. This emphasized that embeddedness is not merely a simple characteristic of tourism filières but rather the relational phenomenon that forms the local economic impact of accommodation providers.

Next section *2.2 Tourist expenditure* included the discussion about tourist expenditure and described how spending behavior can vary based on tourist types and hence, influence local economies. Previous research studies have concluded that understanding tourist expenditure patterns is important for identifying visitor profiles and optimizing revenue flows (Wang & Davidson, 2010; Marrocu, et al., 2015). Hence, this section connected the macro-level economic impact of tourism with micro-level decisions made by tourists and provided a basis for the subsequent analysis of how accommodation choice can affect spending patterns.

The following section *2.3 Accommodation service providers in tourism* included a detailed discussion of accommodation services, which started with looking into details and distinctive features of operation of hotels as well as Airbnbs. In this regard, it has been concluded that ownership and operational models can affect local embeddedness patterns of accommodations (O'Neill & Carlbäck, 2011; Peiro-Signes, et al., 2015; Marco-Lajara, et al., 2016; Adiyia & Vanneste, 2018; Kamann & Gyurácz-Németh, 2023). On the one hand, independent hotels were theorized to have stronger local ties due to decentralized decision-making, while chain hotels were associated with broader, less localized supply chains. On the other hand, according to the regulative history discussed, it can be stated that ownership type not only affects local embeddedness of hotels, but also the Airbnbs as well (von Briel & Dolnicar, 2021). These discussions provided the foundation for the research model which will be introduced in the following chapters.

The section *2.4 Socio-economic impact of tourism* contextualized the debate on economic effect as well as leakages caused by tourism industry by analyzing the scientific literature. In this regard, considering the positive effects (Incera & Fernández, 2015) and the negative consequences (Frent, 2016; Shahzalal, 2016), the need for policies that maximize local benefits have been stated as particularly important. Previous studies have been discussed accordingly together with their limitations, which established the research gap for this thesis. This section has also addressed the challenges of defining "local" in tourism studies, which directly informed the methodological choices for regional boundaries in this research.

The review concluded with the section *2.5 Tourism and accommodation sector in Hungary*. Based on the discussion, it has been stated that tourism and accommodation sector have a considerable place in Hungarian economy, despite various challenges observed. As this necessitates proper tourism planning, the Hungarian government also aims develop the industry as well as destinations and also provide respective regulations in this regard. To illustrate, the country is increasing its accommodation capacity, however, at the same time, it has introduced tighter rules for particular types of short-term rentals in Budapest to address housing concerns.

HHRA has also been introduced as an important part of Hungarian hotel industry as it supports and unites significant share of hotels in the country.

It has also been justified that why Hungary, as a CEE country, which is experiencing both rapid tourism growth and emerging regulatory responses, particularly in relation to Airbnb in Budapest offers a strategically relevant and timely context for investigating local embeddedness across accommodation categories.

It is also worth stating that the sections collectively demonstrated that accommodation service providers are not isolated establishments, on the contrary, they are part of a dynamic ecosystem. In this regard, their procurement practices and the spending behavior of their guests have important effects on local economies, depending on their local embeddedness levels. The filière concept links these elements together and shows how connections determine the extent of local embeddedness. Such a synthesis justifies the focus of the research on comparing accommodation types and their economic contributions, while also identifying gaps, such as the lack of empirical studies on comparing subcategories of hotels and Airbnbs that this dissertation aims to address.

In conclusion, the literature review described how local embeddedness is influenced by ownership structures, supply chain decisions, and tourist behavior. These insights establish the foundation for the research questions and hypotheses as well as inform the methodology in order to be able to quantify and compare the local embeddedness of accommodation categories in the studied Hungarian tourism regions.

The next chapter illustrates the main research questions together with the research hypotheses.

3 RESEARCH QUESTIONS AND HYPOTHESES

To reiterate, the formulation of the research questions and hypotheses is based on the theoretical and empirical insights from the literature review. The literature discussed and depicted the role of accommodation providers in tourism networks, their procurement practices, and their economic contributions to local areas. The filière concept helped to understand the connection of tourism actors and demonstrated that accommodation providers function within broader economic systems. Review of the previous research on local embeddedness suggested that ownership and operational structures influence procurement patterns and guest expenditure behavior. These foundations guide the research questions and hypotheses presented below.

3.1 Research questions

The research questions below aim to analyze the extent of local procurement and economic contributions, hence the local embeddedness by different accommodation types in Hungarian tourism regions:

RQ1. How does the share of procurement sourced from local suppliers by independent hotels compare to that of chain hotels in the studied Hungarian tourism regions?

RQ2. How does the share of procurement sourced from local suppliers by landlord-owned Airbnbs compare to that of absentee-owned Airbnbs in the studied Hungarian tourism regions?

RQ3. How does the share of procurement sourced from local suppliers by Airbnb properties compare to that of hotels in the studied Hungarian tourism regions?

RQ4. How do Airbnb guests and hotel guests differ in the share of their non-accommodation spending allocated to local goods and services during their stay in the studied Hungarian tourism regions?

3.2 Hypotheses

The following hypotheses are formulated based on the abovementioned research questions and the literature review, focusing on the measurable and quantifiable aspects of local embeddedness as discussed in *2.1.2.3 Local embeddedness and relations within the tourism filière* as well as *2.4.1 Defining "local" in tourism and economic impact studies.*

H1: Independent hotels have a higher percentage of procurement from local sources compared to chain hotels in the studied Hungarian tourism regions.

Above statement is hypothesized because independent hotels usually have stronger ties to the local community due to decentralized decision-making which leads to greater engagement with local suppliers, hence local embeddedness (O'Neill & Carlbäck, 2011; Komlósi & Gyurácz-Németh, 2014; Feinstein, et al., 2017; Adiyia & Vanneste, 2018; Kamann & Gyurácz-Németh, 2023) as discussed in the section *2.3.2 Categorization of hotels.*

H2: Landlord-owned Airbnbs have a higher percentage of procurement from local sources compared to absentee-owned Airbnbs in the studied Hungarian tourism regions.

Literature basis for the above hypothesis is that ownership structure influences local embeddedness of Airbnbs (Horn & Merante, 2017; von Briel & Dolnicar, 2021; Ram & Tchetchik, 2022; Lee & Kim, 2023) despite they are mostly presented and treated as a homogenous group (Guttentag, et al., 2025). Hence, landlord-owned Airbnbs, where the host is present and welcomes the tourist, can be more prone to engage more with local suppliers and services and contribute more to the local economy. Such Airbnbs therefore can demonstrate a greater local economic embeddedness compared to absentee-owned Airbnbs. Their inclination for sustainable and locally-focused practices are also indicated by Guttentag (2015; 2019) and Herrero Ballesta (2024).

H3: Airbnb properties have a higher percentage of procurement from local sources compared to hotels in the studied Hungarian tourism regions.

Above is hypothesized as it has been determined in the literature review that although both hotels and Airbnbs provide accommodation for tourists, their business models are different (Zervas, et al., 2017; Yeon, et al., 2020; Wirtz, 2021). Therefore, Airbnb properties, particularly those that are landlord-owned, can have a more flexible and personal approach to sourcing goods and services. Airbnb hosts might be more inclined to support local suppliers because of the decentralized and community-oriented nature of the Airbnb model (Wirtz, 2021). On the other hand, hotels, especially chain hotels, can have standardized procurement practices that

favor bulk purchasing from larger, possibly non-local suppliers. Such differences in procurement practices may result in a greater percentage of local sourcing by Airbnb properties, which means being more locally embedded in the local economy compared to hotels.

H4: Airbnb apartment customers spend a larger share of their non-accommodation budget on local goods and services compared to hotel customers in the studied Hungarian tourism regions.

As this hypothesis focuses merely on the non-accommodation spending of tourists, it should firstly be stated that, in order to address limitations due to the accommodation spending offsetting the other categories of tourist expenditure (Wang & Davidson, 2010; Boboli & Dashi, 2022), several previous studies have also differentiated between accommodation expenditure and the amount that spent outside the accommodation (Hong, et al., 1996; Wang, et al., 2006; Amir, et al., 2015). Moreover, in the same vein with the previous hypothesis **H3**, when hotels and Airbnbs are compared, not only their business models, but also the experiences that they offer for travelers differ (Zervas, et al., 2017; Wirtz, 2021) which can impact their consumption patterns (Sthapit, et al., 2022; McKercher, et al., 2023). Hence, it can be claimed that hotel customers usually have access to on-site amenities and services which reduces their need to rely on local businesses, while Airbnb customers may prioritize more local experience and therefore be more inclined to spend on local goods and services (Yannopoulou, et al., 2013; Oskam & Boswijk, 2016; Sthapit & Björk, 2019; Albaladejo & Díaz-Delfa, 2020).

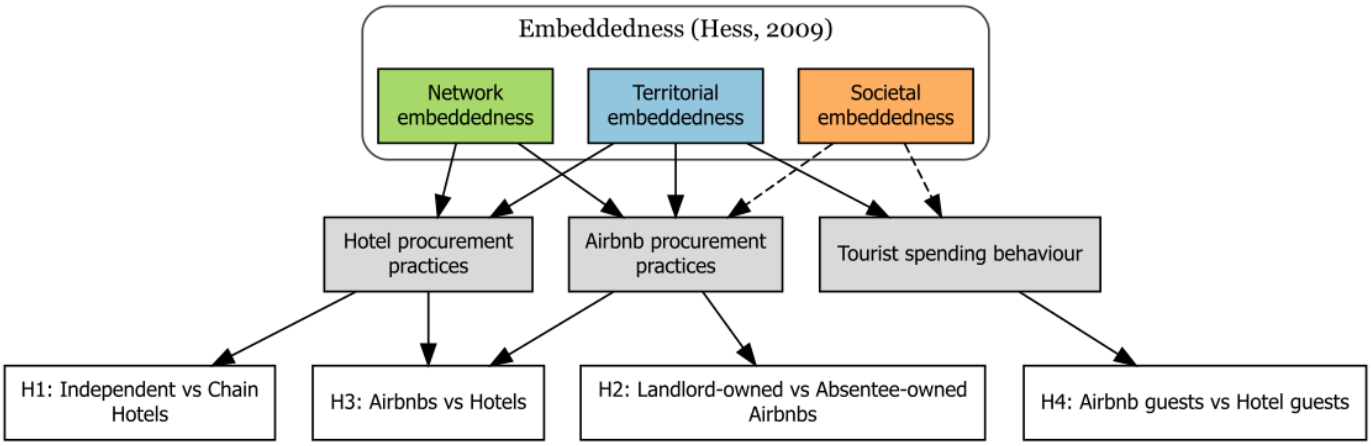

Figure 12. Connection of the embeddedness theory to the hypotheses

Source: Own edition

Once established above, the *Figure 12* links the three dimensions of local embeddedness (Hess, 2009) to the causal mechanisms and depicts which hypothesis tests which dimensions. In the figure, the solid arrows indicate the paradigms measured directly by the study, while the dashed arrows indicate theoretically relevant constructs that are only partly analyzed.

The above sections discussed how the research questions and hypotheses are directly linked to the theoretical discussions and previous empirical research studies illustrated in the literature review. The following chapter outlines the methodological approaches utilized in this study.

4 METHODOLOGY

This chapter explains the main methodological aspects of the research, including the research context and study areas, followed by the data collection which depicts the in-detail information about the survey and other tools used in the process. Finally, the last section discusses the data analysis process including the statistical test and methods selected for outlier detection and treatment.

4.1 Research context and study areas

This section provides information about the research model of the study, how it is created and what areas the empirical research is conducted.

4.1.1 Research Model

It is evident that, in order to research and compare the local embeddedness of different types of accommodation services, one needs to apply a comprehensive methodological approach which considers theoretical and empirical knowledge from previous studies.

In the literature, local embeddedness has also been incrementally investigated through qualitative dimensions such as ideologies, political connections, social trust or cultural alignment (Wu & Pullman, 2015). While these aspects are important, due to their difficulty of quantifying and comparing across different accommodation categories, in this research, procurement patterns and tourist spending behaviors as measurable proxies for embeddedness is adopted, which is in line with the previous studies discussed in the section *2.4.1 Defining "local" in tourism and economic impact studies.*

Hence, these metrics directly reflect the extent to which value generated by tourism is retained within local supply chains and communities. They therefore form the foundation of the research model.

Accordingly, the study consists of two phases which will be elaborated in the paragraphs below.

4.1.1.1 Study phase 1: accommodation category analysis

The first phase of the study focuses on evaluating the local procurement practices of accommodation providers. This is done by developing and running a structured survey to a sample of hotel representatives as well as Airbnb landlords in selected tourism regions of Hungary. The survey process is going to be explained in more details in the section *4.2.1 Survey design*.

The concept of filières, which was discussed in *2.1.2 Filière concept*, serves as the foundational framework for the research. Originating from French economic thought, the filière concept captures the sequence of operations and actors involved in producing and delivering goods and services (Raikes, et al., 2000; Kamann, 2015). When it is applied to the tourism sector, this

framework helps to identify the local embeddedness patterns in operations of accommodation providers. Such operations range from local food and beverage suppliers to cleaning and maintenance services.

This is also complemented by guidelines provided by Feinstein et al. (2017) which provide information regarding the supply categories for the accommodation industry. Therefore, by utilizing these theoretical contexts, a strong assessment of local embeddedness is aimed at addressing limitations observed in earlier studies.

Thus, previous studies in tourism economics, such as those by Andriotis (2002) and Dusek et al. (2011) have utilized more simplified methods for estimating local embeddedness patterns of accommodations and other players of tourism industry. To illustrate, Andriotis relied on hotel owners' rough estimations of their total local supply base. In the same vein, Dusek et al. also acknowledged uncertainty in their calculations. Although such approaches are valuable additions, they fail to identify the nuanced interactions within the local supply networks.

Conversely, in this research a more detailed methodology which attempts to more accurately determine and measure the local embeddedness levels in tourism is used. In this basis, detailed supply categories were focused, and respective data has been collected. Hence, instead of simplified estimations, a more precise as well as reliable analysis of local economic embeddedness is aimed to be provided.

As discussed in *2.3 Accommodation service providers in tourism*, there are various types of service providers for accommodation: at the one hand hotels, either "independent single site" establishments or "franchise and/or chain hotel" establishments, and at the other hand apartments, either as "landlord owned" or as "absentee owned" type are chosen to be included in the research. Hostels could be distinguished as "in between" category and have been excluded from the study since this is assumed to be strongly represented in Budapest but weakly in the other study region.

While this may seem an overly simplified representation of the accommodations industry, the reason for such distinction is that it is assumed that each of the four types just mentioned has a different type of supply base, in particular, in respect to its spatial dimension and the local embeddedness. This spatial aspect is of importance in measuring both positive and negative local impacts of these different types of accommodations on the local economy. Moreover, by doing so, there is a potential to enable the formulation of an optimal local tourism development policy.

While independent hotels are assumed to be more inclined in terms of using local suppliers and are more likely to be embedded in the local social/economic network, the chain hotels on the other hand are considered to use more suppliers from other localities and are more probable to be managed in financial terms from outside the region. Hence, their local embeddedness could well be less in comparison with the independent hotel category.

When it comes to Airbnb apartments, as it has been discussed in the section *2.3.3.2 Airbnb host heterogeneity*, such a framework that takes ownership type together with the presence of the hosts is efficient for analyzing how tourism revenue is retained locally, considering it reflects not only the scale of business operations but also the physical and social ties of the landlords to the destination as a whole.

In this regard, it is considered that the landlord-owned Airbnbs are more rooted in the local network of suppliers, stakeholders, and social interaction than the typical absentee-owned type, which is more expected to outsource most activities outside the regions as in most cases the owners live away from the apartment.

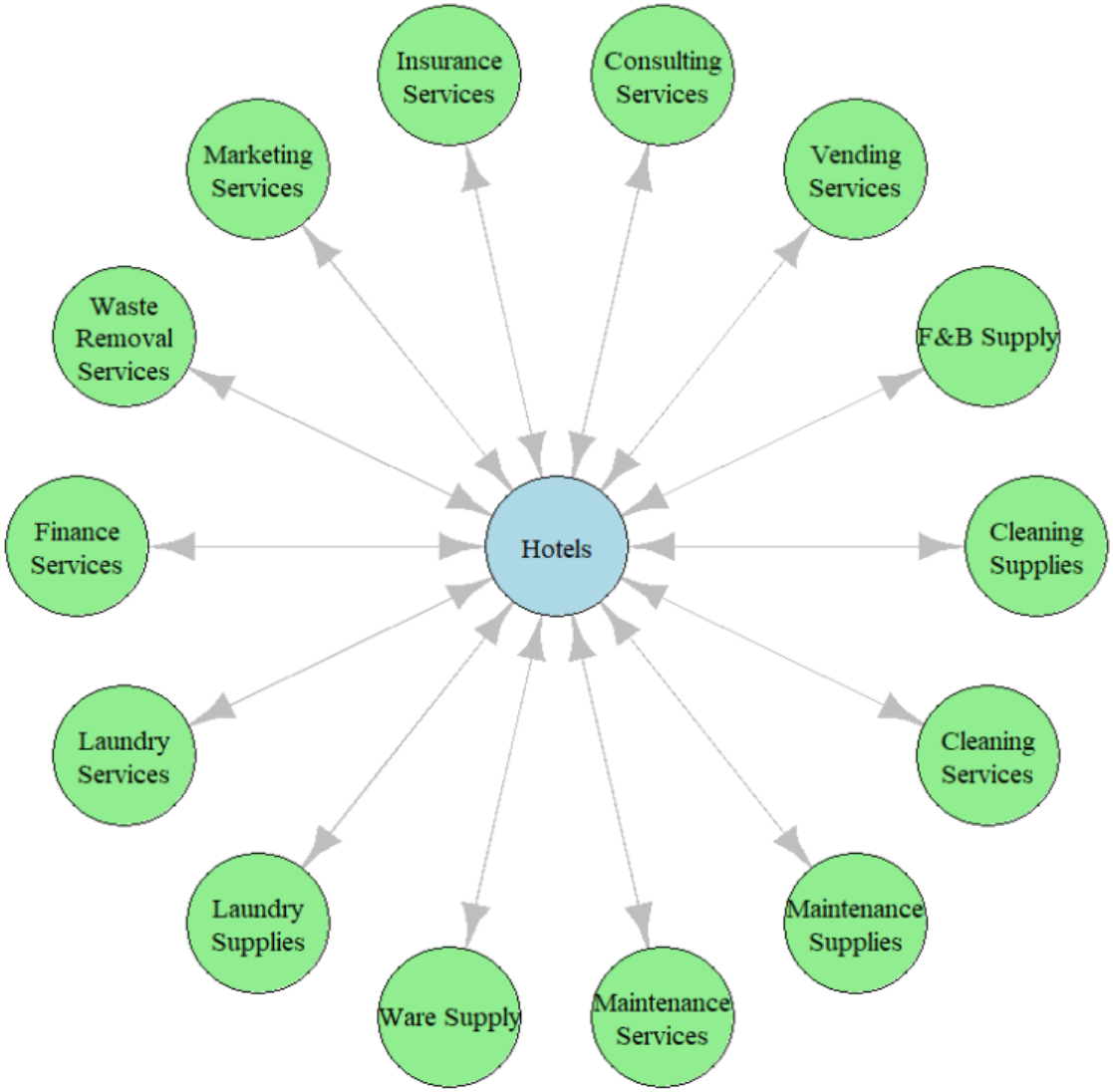

Figure 13. The supply network of accommodation service providers

Source: Own edition based on Feinstein, et al. (2017)

As shown in *Figure 13*, the supply networks of hotels are categorized into 14 specific procurement areas based on the instructions of Feinstein et al. (2017) discussed in *2.3.1 Hotels and procurement operations*. Each of the listed supply categories has potential for interaction with the local economy by the accommodation service providers. Therefore, it forms the basis for calculating the average local embeddedness of accommodation providers.

Notwithstanding, there is a need for a more simplified procurement model for Airbnb properties. Considering Airbnbs typically operate with simpler business structures compared

to hotels as discussed by Zervas, et al. (2017), the scope of supply categories analyzed for Airbnb properties was narrowed to only 3. Specifically, only food and beverage, laundry services, and cleaning services were considered for Airbnb operations. These supply categories were also confirmed by the Airbnb community representatives in both study regions. Therefore, it reflects the operational realities of Airbnbs while also maintaining the study's focus on local economic effect.

Henceforth, the 14 procurement categories for hotels and the 3 procurement categories for Airbnbs make the foundation in order to calculate the average local procurement rates for both accommodation types. The calculated rates serve as the dependent variable in the analysis, while the accommodation categories, merely, chain hotels, independent hotels, landlord-owned Airbnbs, and absentee-owned Airbnbs function as the independent variable in the model. Such a relationship allows comparisons of local procurement practices across the mentioned accommodation types.

4.1.1.2 Study phase 2: tourist expenditure analysis

Above-discussed analysis of local supply practices of accommodation service providers deliver valuable details. However, considering what have been discussed in *2.2 Tourist expenditure*, it is also necessary to further complement it with the evaluation of how their customers spend their remaining budget after the expenditure of lodging.

Therefore, in addition to the procurement patterns, the spending habits of hotel and Airbnb guests are also hypothesized to be significantly different. This can provide additional information, hence potential implications for the local economy.

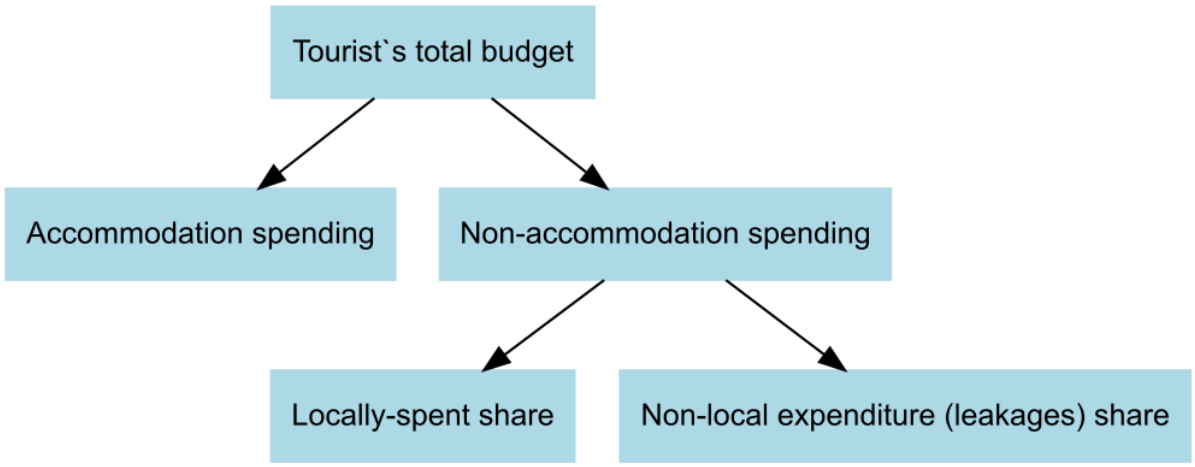

Figure 14. Breakdown of tourist spending

Source: Own edition

Hence, such spending differences can be partly explained by the unique relationship of each tourist group with the places that they visit. As discussed in the section *2.2 Tourist expenditure*, according to place attachment theory of Relph (1976; 2008), individuals can develop different

levels of connection to a place based on the experiences and interactions they had during their visit. In addition, Shamai (1991) further quantifies such attachment, which ranges between "no sense of place" and "total identity with the location".

If one applies the aforementioned concepts to the tourism sector, it can be stated that Airbnb and hotel guests basically can exhibit different relationships with their local environments, which potentially affects their spending behaviors, hence local engagement as a result.

Therefore, it can be stated that Airbnb tourists usually have a stronger connection with the local area, as such apartments typically demand self-sufficiency. This means a bigger probability of integration into the local community during their visit, which is consistent with Relph's before-mentioned concept of place attachment through active interaction in the area. For example, as they have access to kitchen facilities, they are more prone to shop at local grocery stores, farmers' markets, and specialty shops, which directly support small-scale local businesses as a result. Consequently, Airbnb guests can be more exposed to exploring a broader range of local attractions and thus engage in more diverse tourist activities.

In contrast, hotel guests most of the time lack access to some facilities, such as cooking amenities. Hence, they can be more inclined to rely on restaurants, cafes, and other prepared food services, which may either be located near or within their hotel. This also means the hotel guests' spending is more probable to be cumulated adjacent to the accommodation places as opposed to the Airbnb customers. Accordingly, in comparison with the Airbnb guests, such behavior patterns of the hotel guests have a potential to form different type of engagement with the local area, where the connection is mediated by the convenience offered within or close to the hotel.

Based on the aforementioned theoretical foundation, it is hypothesized that the distribution of non-accommodation spending across categories, such as food and beverages, transportation, tourist attractions, entertainment, and shopping will be different between Airbnb and hotel guests.

To be more precise, Airbnb guests are expected to allocate a larger share of their non-accommodation expenditures on locally sourced goods and services, also because of a more diversity in their total spending. In contrast, hotel guests' spending may be more concentrated within structured and narrower networks, including restaurants and other amenities that are directly connected to hotels.

To recapitulate, the second phase of the research examines the spending behaviors of tourists, focusing on whether Airbnb customers allocate a greater share of their non-accommodation expenditure to local goods and services compared to hotel customers. This analysis contributes to a more detailed understanding of the local economic impact of the studied accommodation categories.

4.1.1.3 The final model

In order to picture and analyze the contributions of accommodation service providers to local economies as a whole, integration of both above-discussed research phases into the main model

is necessary. In this regard, the research model depicted in *Figure 15*, combines and illustrates the main variables as well as relationships that are analyzed.

To conclude, by including procurement practices of accommodations, and tourist spending behaviors, the model provides a thorough approach. This enables carefully testing the study's hypotheses mentioned in *3.2 Hypotheses* as well as addressing its research questions.

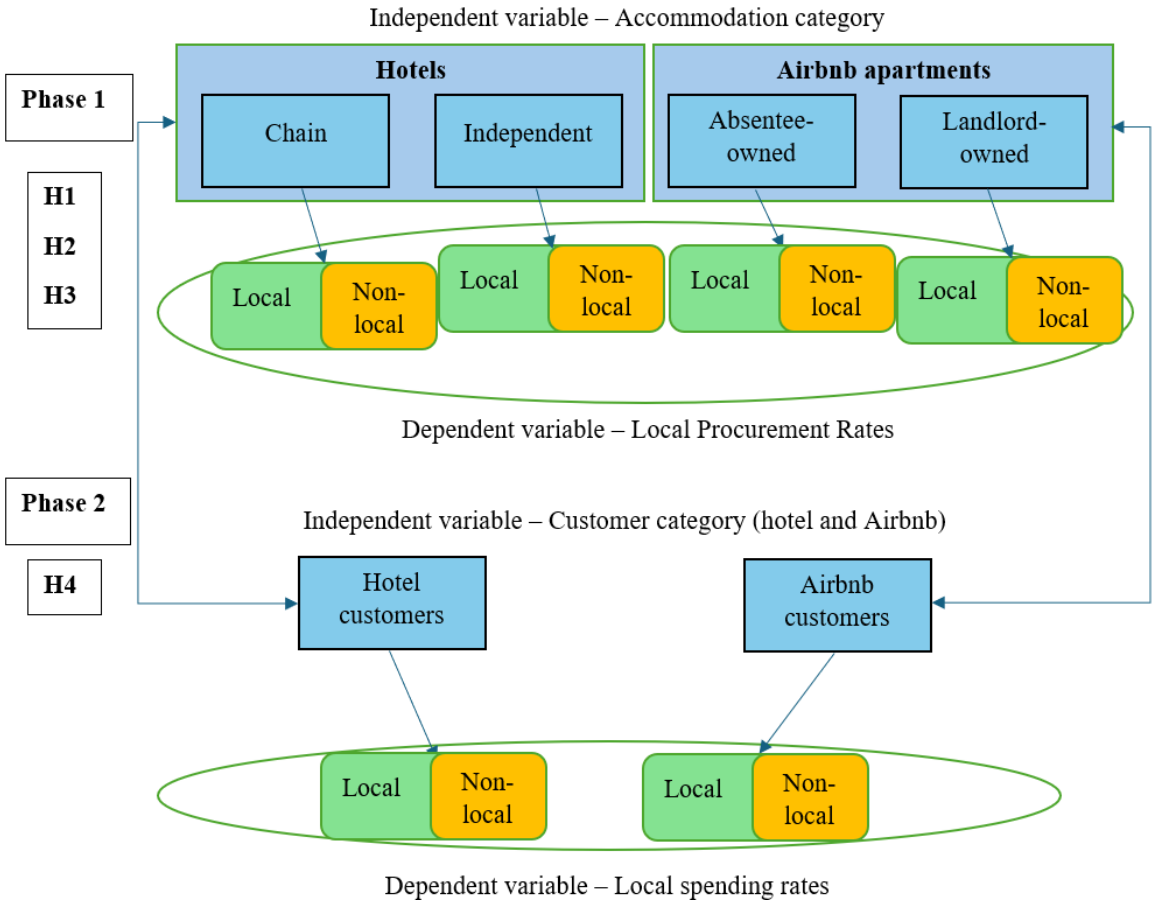

Figure 15. The research model

Source: Own edition

Section below provides information about the regions included in this research.

4.1.2 Overview of the study areas

There are two study regions selected for being analyzed, the first being Budapest and surroundings and the other being Lake Balaton. The paragraphs below provide information about the main justification points behind the selection of the regions for the purposes of the research work.

The first study region – Budapest and surroundings is the capital area of Hungary. With a population of 1.7 million inhabitants, Budapest is one of the largest metropolitan areas in Central Europe (Smith, et al., 2023) and serves as a major tourist destination within the country

and across the region. As the city is known for its history, culture, as well as architecture, it almost always ranks among the "Top 100 City Destinations" (Euromonitor, 2023).

The city therefore attracts millions of visitors annually (Hungarian Central Statistical Office, 2024), contributing significantly to the national economy. Moreover, as the most developed region, Central Hungary (Hungarian Central Statistical Office, 2024), where Budapest is located, benefits from both substantial infrastructure as well as flow of investment. As a consequence, such an inflow of tourists and capital has transformed Budapest into a lively metropolis with a wide range of accommodation options, ranging from luxury hotels to budget-friendly hostels and increasingly popular short-term rental options such as Airbnb apartments. Smith and Puczkó (2020) even consider that Budapest has undergone from under-tourism to over-tourism throughout the post-socialist era of Hungary, which may explain the reason behind the recent regulations targeting short-term rentals discussed in the section *2.5 Tourism and accommodation sector in Hungary*.

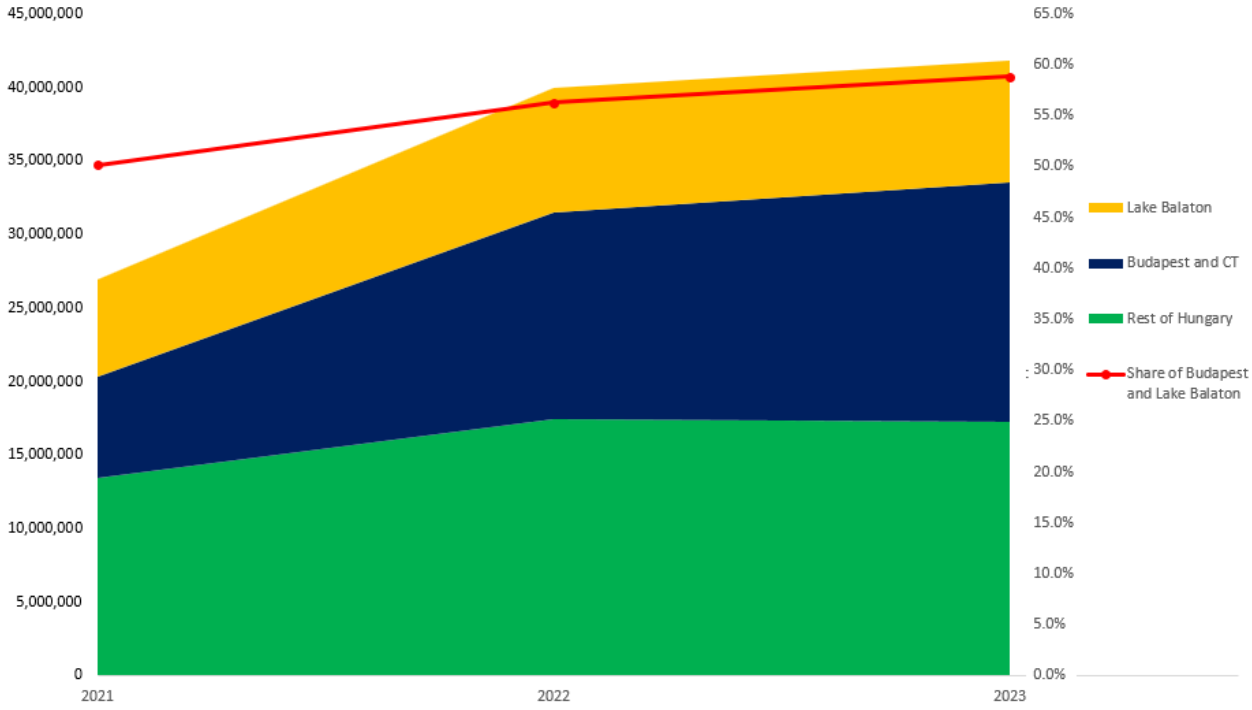

Figure 16. Number of tourism nights in accommodation establishments

Source: Own edition, based on data from HCSO (2024)

The second study region – Lake Balaton, which is often referred as the "Hungarian Sea", is the second most-visited tourist attraction in Hungary according to the Hungarian Central Statistical Office (2024). As it is also the largest freshwater lake in Central European region, Lake Balaton has become quite a popular destination for both domestic and international tourists (Lőrincz, et al., 2020; Sulyok, et al., 2024).

If compared with the other study region – Budapest, the tourism development around the lake is better spread as several smaller towns and villages are catering to the visiting tourists. The tourism dynamics here also differ as the seasonality of tourism is quite high. Hot summer

months see the peak of the calendar year for number of arrivals, hence, mostly emphasizing outdoor and water-related activities.

Moreover, it is worthy to mention that economic development is not always divided equally among regions of some countries, Hungary is also not an exception. Thus, Dusek et al. (2014) mention in their study regarding the development differences among the regions of Hungary that Central Hungary is the most developed region in Hungary, followed by Western Transdanubia, Central Transdanubia, and South Transdanubia. Southern Great Plains, Northern Great Plains, and Northern Hungary, on the other hand, are found to be the less developed regions of Hungary, which supports the claim that the western side of the country is more developed than the eastern side (Brown, et al., 2007; Wandel, 2010; Quadrado, et al., 2001; Lengyel, 2005). Such a situation naturally reflects on the tourism industry as well, thus, *Figure 16* illustrates that the two regions selected for the study made up over half of all tourism arrivals to the country, including both international and domestic visitors between 2021-2023, indicating that the selected regions might be perceived as more authentic or desirable by the tourists.

Overall, although Budapest and surroundings and Lake Balaton tourism regions differ in terms of tourism seasonality, spatial development, and economic structure, the current research focuses primarily on comparing accommodation categories. Methodologically, this study therefore maintains standardized metrics across regions to ensure valid accommodation-category comparisons. However, the findings should be interpreted considering the characteristics of each region, and any practical implications or policy suggestions must be derived accordingly.

To recapitulate, taking into account what have been discussed above, the strategic significance of both study regions in the tourism industry of Hungary shows the importance of understanding the local economic impact of accommodation industry in these regions. Next subsection includes discussion of the administrative structure of the regions in the country, which will be a basis for defining the scope of the term “local” for this research.

4.1.3 Administrative structure of Hungarian regions

Considering what have been discussed in the section *2.4.1 Defining “local” in tourism and economic impact studies*, understanding the administrative structure of Hungarian regions is essential in order to define the term “local” within the context of the research.

As illustrated in the *Figure 17,* Hungary is divided into several administrative levels, with “járások” (districts or townships) being one of the primary sub-national divisions. These districts play the role of administrative units that help in regional planning and development. Each district contains multiple settlements, including towns and villages, which is providing a structure for localized governance and economic activities (Hungarian Central Statistical Office, 2019a).

Nonetheless, Budapest, the capital city, presents a unique case with its division into 23 smaller districts (kerületek) (Hungarian Central Statistical Office, 2019a). These districts function as administrative units within the city, each with its own local government and administrative responsibilities. The urban structure of Budapest and its integrated economic interactions

necessitate treating the city as a single entity for the purposes of economic impact studies (Dusek, et al., 2011)

To conclude, the varied interpretations of "local" in tourism literature as discussed in the section *2.4.1 Defining "local" in tourism* depict the need for context-specific definitions considering the unique administrative and economic structures of the study areas. The following section provides information in this specific regard.

Figure 17. Districts (Townships) of Hungary

Source: HCSO (2019a)

4.1.4 Defining "local" for the research

Within a country, various factors, such as population density, transportation accessibility, cultural behaviors, and proximity to administrative borders can be different significantly. Such differences necessitate a review of the operational definition of the term "usual environment" to ensure it accurately reflects these disparities (United Nations World Tourism Organization, 2008). Hence, in order to effectively measure and compare the local economic impacts of accommodation service providers in the study regions of Hungary, a proper definition of the term "local" is necessary. This definition can vary based on the unique administrative structures and urban characteristics of Hungary, particularly among regions outside Budapest and Budapest itself.

Based on what has been discussed in the sections *2.4.1 Defining "local" in tourism* and *4.1.2 Overview of the study areas* the following paragraphs explain the justification for defining the "local" in this study.

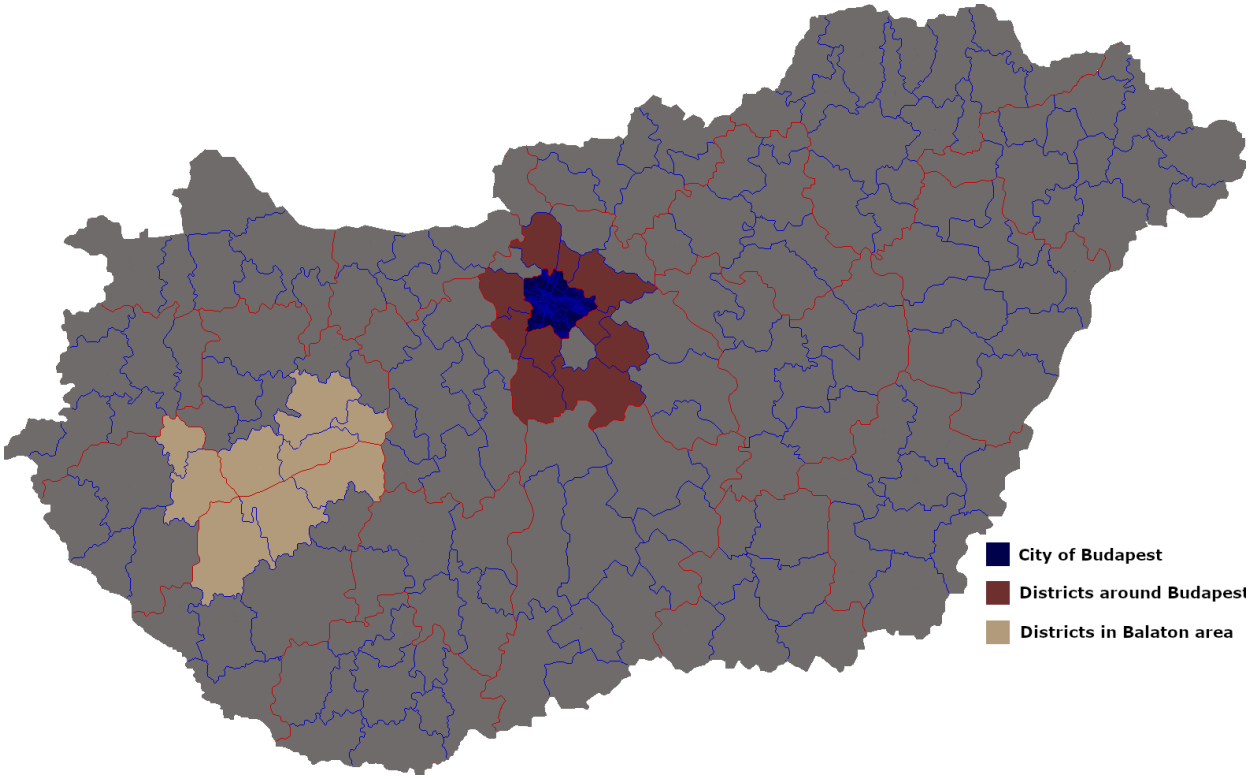

Figure 18. Local research regions in the study areas

Source: Own edition based on HCSO (2019b) *and HHRA* (2024)

Defining "local" based on specific administrative and urban contexts has been shown to provide more accurate and relevant results in previous studies on regional economic impacts (Isserman, 1977). Urban areas often demand a more detailed approach in comparison with rural or less densely populated regions, as evidenced by various studies that demonstrate the importance of context-specific definitions in economic research (Brown, et al., 2004; Wineman, et al., 2020).

Henceforth, based on all discussed above, for regions outside the city of Budapest, including Balaton surroundings, the existing administrative divisions known as "járás" (districts) are used as the geographical boundaries to define "local". As depicted in the *Figure 18*, each "járás" is well defined and provides a suitable unit for measuring local economic embeddedness, including the use of local suppliers.

To reiterate, Budapest, as the capital city, presents a unique scenario with its complex urban structure. Unlike the "járás" in other regions, Budapest is divided into 23 smaller districts (kerületek). For the purposes of the research, the city of Budapest is considered as a single "local" area. This approach effectively simplifies the analysis and takes into account the integrated economic interactions within the entire city. Hence, treating Budapest as a whole also aligns with previous studies that consider the interconnectedness of urban economies (Cattaneo, et al., 2021).

To be more precise, during the dissemination of the surveys, the definition of "local" was communicated to the survey participants as follows:

Accommodations located in the Budapest and surroundings region:

"Local refers to either (1) the city of Budapest if the accommodation is located within Budapest, or (2) the respective járás (district) around Budapest if the accommodation is not located within the city of Budapest."

Accommodations located in the Lake Balaton region:

"Local refers to the respective járás (district) where the accommodation is located."

The next section discusses the data collection process, including the preparation of surveys and its distribution to the survey participants.

4.2 Data collection

This dissertation evaluates the local economic effect of different types of hotels and Airbnb accommodations as well as their customers. In order to achieve this, several data collection research methods can be utilized, including surveys, interviews, focus groups, observations, and secondary data analysis (Kabir, 2016). Each of the aforementioned methods has its own strengths and weaknesses, however, the most appropriate method for the research can be selected based on the appropriateness and applicability for the research. Among all other possible research methods, surveys are a common and widely used method for collecting data in social science research (Groves, et al., 2009; Fowler, 2012; Dillman, et al., 2014; Babbie, 2016). Thus, surveys involve asking respondents a set of standardized questions, either in person, over the phone, through mail, or online, and then analyzing the responses using statistical methods. Surveys are also a widely used method in social science research, particularly in economics, because of their effectiveness in collecting data from diverse and large samples (Groves, et al., 2009).

Among all other research methods available, surveys can be mentioned as the best method for evaluating and measuring the local economic effect of different types of hotels and Airbnb accommodations for several reasons explained in below paragraphs.

First of all, surveys are a highly efficient and cost-effective method of data collection (Dillman, et al., 2014; Babbie, 2016). They can be administered to a large number of participants, either online or in-person, and the responses can be quickly and easily analyzed using statistical software. Therefore, compared to other methods, such as interviews or focus groups, surveys are definitely less time-consuming as well as less expensive.

Secondly, surveys can provide highly standardized and reliable data (Fowler, 2012; Babbie, 2016). Thus, surveys use a set of consistent questions that are asked of all participants, ensuring that all respondents are asked the same questions in the same way. This makes it easier to compare responses, hence, to draw conclusions from the data respectively. Surveys can also be designed to minimize response bias, so that participants can provide accurate and honest responses (Stopher, 2012).

Next, surveys are a highly flexible method of data collection (Hox & Boeije, 2005). Surveys can be structured, semi-structured, or unstructured, depending on the research question and the type of data that needs to be collected (Ponto, 2015). They can also be administered using a variety of methods, including online, in-person, or over the phone, making them accessible to a wide range of participants.

Moreover, surveys can be used to collect data on a wide range of variables, such as demographic information, attitudes, behaviors, and experiences (Fowler, 2012).

Lastly, surveys can be easily analyzed using statistical software to identify patterns and trends in the data (Groves, et al., 2009; Fowler, 2012; Dillman, et al., 2014; Babbie, 2016). This makes it possible to conduct quantitative statistical analysis to test hypotheses and draw conclusions from the data.

All in all, based on all discussed above, it can firmly be stated that surveys are the best method for collecting and evaluating the necessary data on local economic effect of different types of hotels and Airbnb accommodations. To reiterate, surveys are efficient, cost-effective, standardized, reliable, flexible, and easy to analyze, which makes them an ideal data collection research method where quantitative data is required. Therefore, web surveys have been chosen as the primary method for data collection. However, the survey is also administered in person to some of the participants by providing them with a QR code which directed the participants to the online survey website.

Secondary data, which merely involves using accessible data sources such as government statistics, databases and other data sources was also used to answer research questions. This method is particularly cost-effective and efficient, even though the availability and quality of the data limits it (Taherdoost, 2021).

The section below provides information about the surveys utilized in the research.

4.2.1 Survey design and administration

The survey was designed to measure the local embeddedness of different types of accommodations (hotels and Airbnbs) in the selected study regions. In this regard, the survey questions were structured to test the research hypotheses and answer research questions.

First, in order to gather the required information, the survey questions were divided into three subsections:

1. Questions about hotels
2. Questions about Airbnb apartments
3. Questions about customers of hotels and Airbnb apartments

This approach resulted in three separate surveys, each consisting of questions from the above question groups. These surveys were then distributed to the respective participant groups: (1) hotel representatives, (2) Airbnb owners, as well as (3) tourists that stayed in hotels or Airbnb apartments to enable collection of the necessary information for the final data analysis.

In order to encourage honest responses from the participants, the surveys were anonymized using LimeSurvey online survey tool's anonymizing feature. Hence, by doing so, confidentiality was ensured. Guaranteeing participant confidentiality is a widely accepted method in the literature that helps participants to feel more comfortable for providing accurate and unbiased information (Lelkes, et al., 2012) which was critical for obtaining reliable data for the analysis. Such an approach is helpful in overcoming issues about social desirability bias and also encourages participants to report their true expenditure patterns and procurement practices without any hesitation.

The survey questions were then subjected to a testing phase in order to guarantee clarity as well as understanding. During this process, the participants provided important feedback on different aspects of the survey, including question wording and the response options.

Next, following the necessary modifications, the final surveys have been sent out to the survey participants via appropriate channels, such as email and online platforms, which will be discussed in more detail in the paragraphs below. The time of the survey conduction has been carefully chosen to be in between the high season and off-season, merely because previous studies have shown that such a practice provides better response behavior in comparison with the high season (Matzler, et al., 2005). Therefore, all considerations and adjustments were made before the final data collection in order to make sure of the highest quality of responses.

Below subsections explain the details on the preparation and distribution of each survey respectively as well as describe their relevance with the research hypotheses.

4.2.1.1 Hotel survey

In general, the hotel survey (**Appendix 6**) was carefully prepared to collect detailed information regarding the procurement practices of hotels, in order to get information about the geographic origin of the goods and services that they buy to operate their business. Such an approach was targeted to provide a proper understanding of how the different types of hotels contribute to the local economy through their procurement behaviors.

In this context, the survey included two sections: *(1) "Basic information"* and *(2) "Supply-related information"*. The first section included questions to categorize hotels based on their ownership types (independent or chain-affiliated), while the second section was dedicated to understand the share of local suppliers for the procurement categories discussed in *4.1.1.1 Study phase 1: accommodation category analysis.*

These questions helped to quantify, calculate and compare the local embeddedness levels of hotel categories. Therefore, the data collected thanks to these questions were used in testing the hypotheses **H1** and **H3** described in *3.2 Hypotheses*. To be more precise, the questions helped to collect needed data to compare the local embeddedness levels of independent and chain hotels **(H1)** as well as later compare their overall local embeddedness levels with that of the Airbnb apartments **(H3)**.

Due to the fact that the complete database of all hotels is currently not publicly accessible in the country, the target population for the hotel survey comprised of those members of Hungarian Hotel and Restaurant Association located in the study regions, as illustrated in

Figure 19. Despite this approach limits the generalizability of the results as it may possibly underrepresent some rural establishments, the association is considerably represented in the hotel industry of Hungary. Thus, as of late 2024, the HHRA had more than 460 hotels members, which accounted for approximately 70% of the sector in terms of the room capacity as discussed in section *2.5.1 Hungarian Hotel and Restaurant Association*.

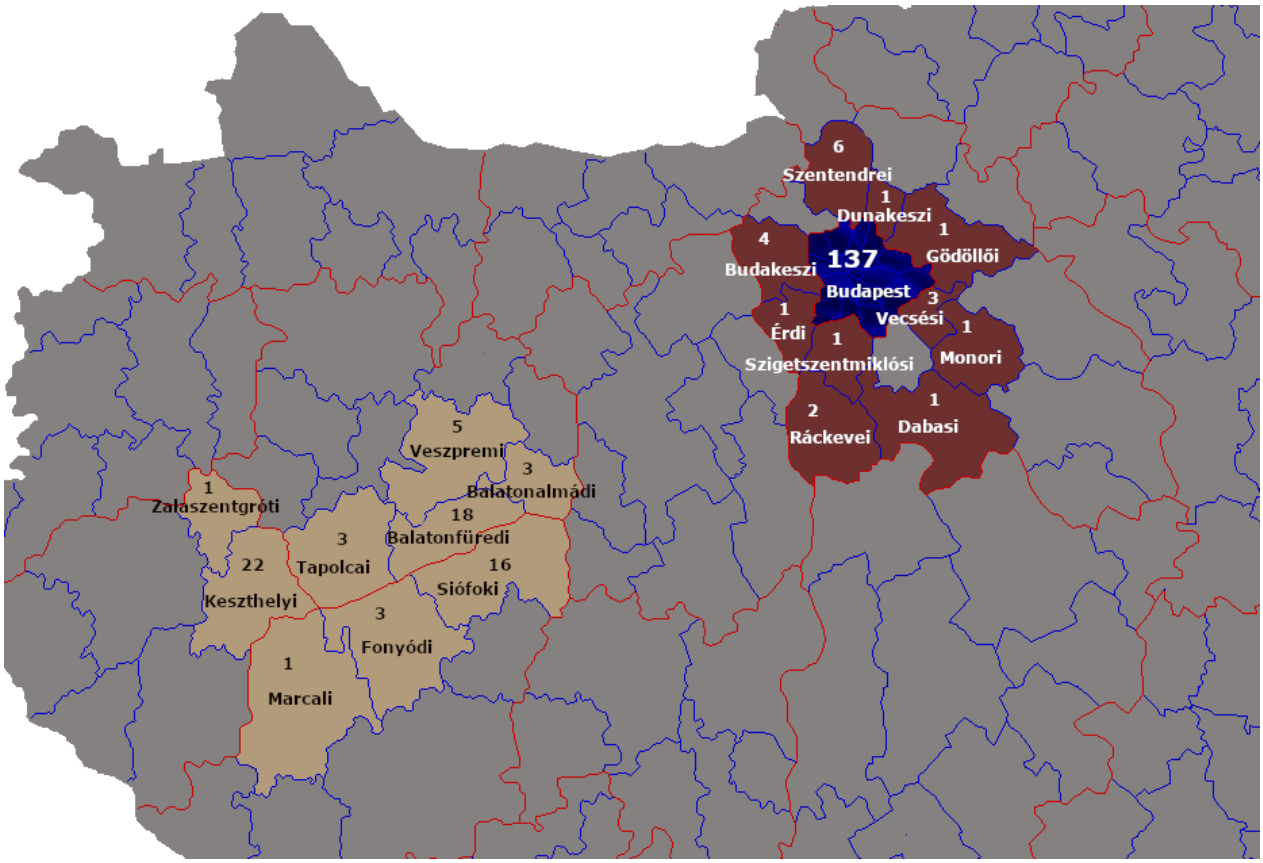

Figure 19. Distribution and number of hotels in the study areas

Source: Own edition based on HCSO (2019a) *and HHRA* (2024)

In order to formulate the final participant dataset, web scraping method was utilized using Power Query. Such an automated approach made it possible to extract essential data categories from the HHRA website, such as hotel names, necessary contact information, room capacity, as well as the addresses of the hotels that are located in Budapest and Balaton regions. All gathered data was publicly available. Following, the scraped datasets for both regions were merged, organized and manually reviewed in order to confirm accuracy as well as completeness for subsequent survey distribution.

With the purpose of transparency and reproducibility, the Power Query code used for the aforementioned process is included for both Budapest and Balaton regions in the **Appendix 2** and **Appendix 3** respectively.

The final dataset comprised a total of 245 hotels, with 163 hotels from the Budapest region and 85 hotels from the Balaton region. Notwithstanding, four hotels were later removed from the

data as the necessary e-mail contact information was not possible to find. Hence, a total of 241 hotels with complete data for the hotel survey were left.

Figure 19 illustrates the distribution of the hotels in the study regions which were determined thanks to the availability of the exact addresses of the hotels in the scraped data. As can be seen from the figure, over half of the hotels are situated in the city of Budapest, while the remaining hotels are primarily located in the Balaton region.

Following the above process of participant data collection, the survey was sent to the hotel representatives via the automated email sending option in LimeSurvey online survey tool, and the process was closely monitored. To increase the response rates, multiple follow-up emails were sent to the hotel contacts.

All in all, the information collected about the procurement categories of hotels through this survey was the first and very important step in exploring their local embeddedness levels.

4.2.1.2 Airbnb survey

The Airbnb survey (**Appendix 5**) was designed to gather comprehensive data on procurement patterns, more precisely, acquiring information about the geographic sourcing of goods and services for operations of Airbnb apartments. This approach was helpful for understanding how the various types of Airbnb apartments contribute to the local economy through their procurement and sourcing practices.

In the same vein with the hotel survey, the Airbnb survey also included two sections, *(1) "Basic information"* and *(2) "Supply-related information"*. The questions in the first section were selected as they enabled categorization of the Airbnbs. On the other hand, the questions of the second section were used to determine the local embeddedness levels of the Airbnb categories by providing data for the share of local supplies in their procurement categories described in section *4.1.1.1 Study phase 1: accommodation category analysis.*

Region	*N*	Average price (Ft/night)	Total of Number of Reviews	Average Rating	Total Beds	Total Bedrooms	Total Baths
Budapest and surroundings	*247*	26,653	25,672	4.80	340	225	248
Lake Balaton	*250*	40,379	7,165	4.88	413	293	260

Table 2. Characteristics of targeted Airbnb apartments in the study areas as of August 2024

Source: Own edition based on Airbnb (2024b)

Therefore, the questions of this survey assisted in measuring, calculating and comparing the levels of local embeddedness of Airbnb categories. In this regard, the gathered data based on

these questions were utilized in testing process of the hypotheses **H2** and **H3** depicted in section *3.2 Hypotheses*. More precisely, the questions made possible to collect the necessary data for comparison of the local embeddedness levels of landlord-owned and absentee-owned Airbnbs **(H2)** as well as further compare their overall local embeddedness levels with that of the hotels **(H3)**.

As the initial step, similar to the hotel survey, web scraping was used to gather participant data. However, since on the Airbnb portal's website it is not feasible to scrape data through Excel Power Query, a web tool named "BNB Toolbox Scraper for Airbnb" was utilized instead. This tool allowed for the extraction of various listing details such as location and web link to listings, which was helpful in terms of reaching out to the survey participants through the internal mailing system of the Airbnb portal.

Considering the extensive number of Airbnb listings in the study regions and the platform's restrictions in terms of direct communication with the hosts, a sampling approach was applied. Thus, web scraping was conducted during the high season to capture the most active listings, and only properties with availability at the time of data collection were considered in order to ensure that hosts could be contacted. Moreover, with the aim of maintaining feasibility, a subset of listings was selected systematically by focusing on a representative portion of the total listings on the portal. Accordingly, the selection process considered the first 5 pages of search results on the Airbnb website for each region for achieving the list of most prominently listed accommodations. Not to mention, hotels have been excluded from the search by filtering them out during the participant selection process.

Following the web scraping process, the dataset was manually reviewed and cleaned to confirm accuracy and completeness before survey distribution. As outlined in *Table 2*, the final sample included 247 Airbnb apartment listings in Budapest and its surroundings and 250 in the Balaton region. The Airbnb survey was then distributed to the identified hosts via the internal Airbnb mailing system using a LimeSurvey online survey tool link. Because of the restrictions on the Airbnb platform regarding mailing frequency as well as volume, follow-ups were conducted strategically to maximize the response rates while adhering to the policies of the platform.Similar to the hotel survey, frequent follow-ups were also conducted to improve response rates from the Airbnb hosts and representatives.

To conclude, the data gathered on Airbnbs' procurement categories through this survey served as the foundational step in terms of assessing their levels of local embeddedness.

4.2.1.3 Tourist survey

This survey was prepared based on the discussions in sections *2.2 Tourist expenditure* as well as *4.1.1.2 Study phase 2: tourist expenditure analysis.*

Considering the scarcity of official data on most aspects of tourist spending in Hungary, direct contact has been made with the tourists to collect primary data. For this aim, the tourist survey was designed to gather data on the non-accommodation spending patterns of tourists. This was

fruitful to understand how the tourists, being customers of the accommodation categories, contributed to the local economy through their non-accommodation expenditure.

In terms of the structure of the tourist survey (**Appendix 4**), it was consisted of two sections based on the questions asked, *(1) "Basic information"* and *(2) "Spending pattern".*

The questions in the first section were chosen as they assisted categorization of the tourists based on their choice of accommodation (hotel or Airbnb). This section therefore was designed to achieve responses by accommodation type by disabling multiple selections for the respondents, in order to make sure that participants only reported one specific trip where either a hotel or an Airbnb was used. This was done to ensure clear attribution of spending behavior to a particular accommodation category.

On the other hand, the second question group enabled the participants to indicate the information about the percentage share of their non-accommodation expenditure that was directed at local businesses.

Therefore, the data that was collected based on the questions of this survey was used when the hypothesis **H4** which is included in section *3.2 Hypotheses* was tested. In this regard, the questions made it possible to collect the required data to compare how the customers of the hotels and Airbnbs are inclined to spend more locally.

The survey was distributed to participants who were selected using a random sampling method through both online avenues, namely, social media (Facebook.com and Reddit.com) groups where tourists share their experiences as well as in-person approaching. More precisely, online distribution was carried out by posting in the social media groups as well as reaching out to tourists via personal messages, with the aim of broad reach among potential respondents. On the other hand, in-person data collection was conducted at the tourist destinations in both study regions by using the QR code of the survey link which helped with direct engagement with participants and increased the response rates. This was done to avoid potential desirability bias and achieve genuine answers.

The LimeSurvey online survey tool was utilized in this survey as well which assisted the dissemination of survey questions and the systematic collection and management of responses. Hence, the data, which was the main basis in terms of measuring the tourists' local spending patterns, was gathered in a structured and organized manner.

4.2.2 Sampling approach and response rates calculation

A random sampling strategy was applied in order to select participants for the survey. This approach guaranteed that each individual in the population had an equal probability of being included. Although no predefined strata were used, the collected data was then examined for evaluating the distribution of responses across main categories, such as age, location (Balaton and Budapest) and accommodation type. Such verification effectively confirmed that the dataset included a reasonable representation of all groups, therefore increasing the robustness and generalizability of the research findings.

The sample size was decided based on the required level of precision for statistical tests to be used, as well as the expected response rates in accordance with the previous tourism studies.

Thus, according to Mitchell and Carson (1989; 2013), response rates are calculated by dividing the number of completed responses by the total number of individuals contacted. It is also suggested by the authors that adjusting this calculation by excluding undeliverable surveys can provide a more accurate measure of participation. An acceptable rate in case of the tourism industry can be estimated around 20%, since most tourism and SME surveys have weak response rates, especially from the small and medium tourism establishments, as indicated by Buhalis (2003) who in his study about eTourism received a response rate of 25,2%. Louvieris, et al (2001) also received quite a low response rate of 21,7% in his research on London hotels.

The next section provides information about the data analysis process of the research.

4.3 Data analysis

It is claimed that differentiating between the quantitative extent and qualitative characteristics of regional development is essential (Pike, et al., 2007). While quantitative approaches concentrate on the relative or absolute changes in metrics such as GDP, number of jobs, etc., over specific periods (Mccann, 2007) the qualitative dimension is concerned with the nature of local and regional development, such as sustainability (economic, social, and environmental), forms of growth and local embeddedness (Pike, et al., 2007).

In this research, a quantitative approach is utilized on the measurable aspects of the local embeddedness characteristics which have been discussed in the section *4.1.1 Research Model.*

Following the completion of the above-discussed surveys, all datasets have been exported from the LimeSurvey online survey tool. Data cleaning and data analysis processes were conducted using the RStudio statistical software version 2024.12.0+467.

The following paragraphs provide information about all steps and methods utilized subsequent to data cleaning to test the hypotheses of the research model, which necessitate the comparison of the groups.

4.3.1 Identification and treatment of outliers

Outliers are those observations in data that are much smaller or larger than the rest of the observations, and such extreme observations can distort the results of statistical tests due to the effect on the mean and median they are causing (Cousineau & Chartier, 2010). Sprent (2019) explains in his book that even in randomly drawn samples, anomalies can occur because of issues in the sampling process or limitations in measurement techniques. In the book, the author first recommends analyzing the data to look for the possible outlier values, then suggests several methods to accommodate them, if any.

In order to check for the outliers, the Grubbs test was first decided to be applied. However, the normal distribution is assumed for the application of this test (Adikaram, et al., 2015). Based on the results of the Shapiro-Wilk test for normality, where the null hypothesis assumes normality, this requirement was not met for any of the subsets of the research data, except the chain hotels subgroup, as can be seen from the *Table 3.*

Hence, box plots were used as an alternative approach to look for potential outliers in the data. By providing a visual representation of the distribution of the data, boxplots visualize values that fall outside the typical range of observations based on the interquartile range (Williamson, et al., 1989).

Data subset	W Value	ρ-value	Normality assumption
Absentee-owned Airbnbs	0.762	$\rho < 0.001$	Unmet
Landlord-owned Airbnbs	0.718	$\rho < 0.001$	Unmet
Chain hotels	0.960	$\rho = 0.466$	Met
Independent hotels	0.921	$\rho = 0.015$	Unmet
Airbnb tourists	0.928	$\rho = 0.005$	Unmet
Hotel tourists	0.942	$\rho = 0.011$	Unmet

Table 3. Results of the Shapiro-Wilk normality test for data subsets

Source: Own edition

Therefore, boxplots for the subsets of the data (*Figure 20*, *Figure 21* and *Figure 22*) indicate that there are outliers identified within the subsets of landlord-owned Airbnbs (3 outliers), absentee-owned Airbnbs (1 outlier), independent hotels (2 outliers) and Airbnb customers (1 outlier), while the remaining subsets do not contain any such extreme values.

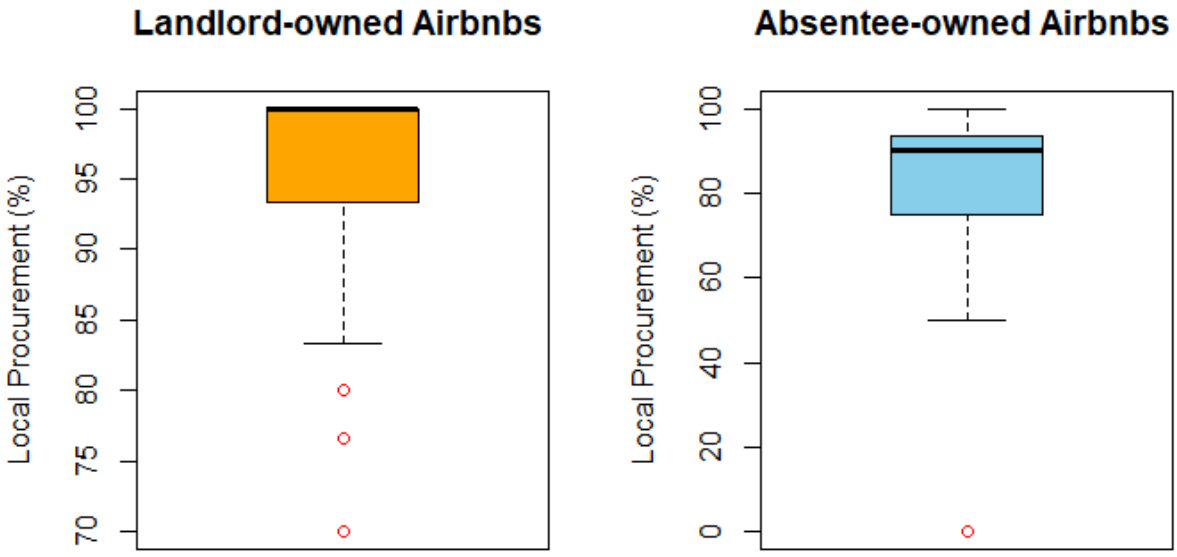

Figure 20. Outliers in the data for local procurement levels of Airbnb categories

Source: Own edition

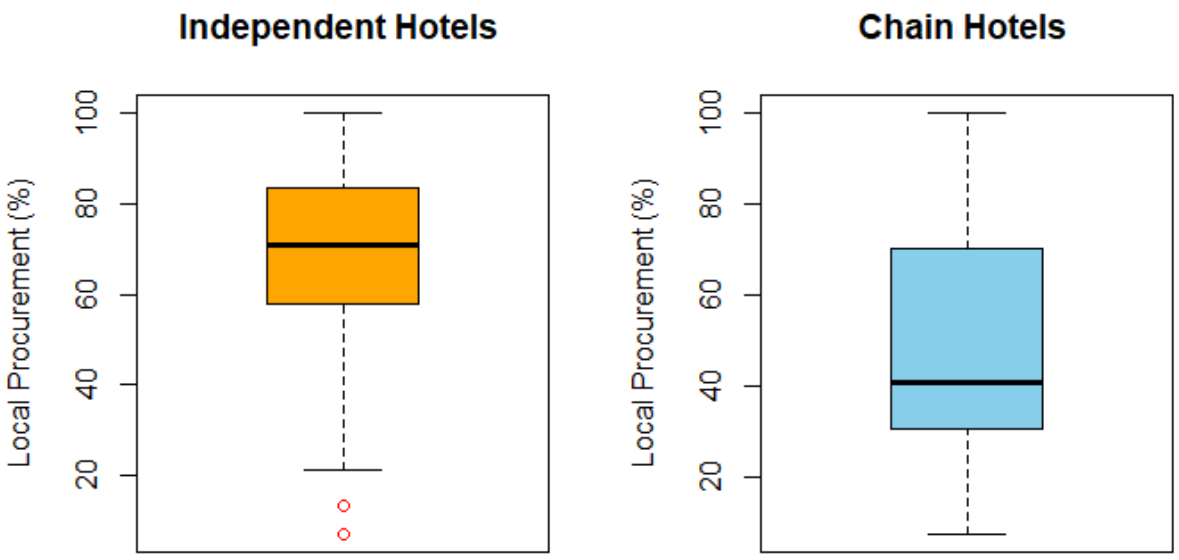

Figure 21. Outliers in the data for local procurement levels of hotel categories

Source: Own edition

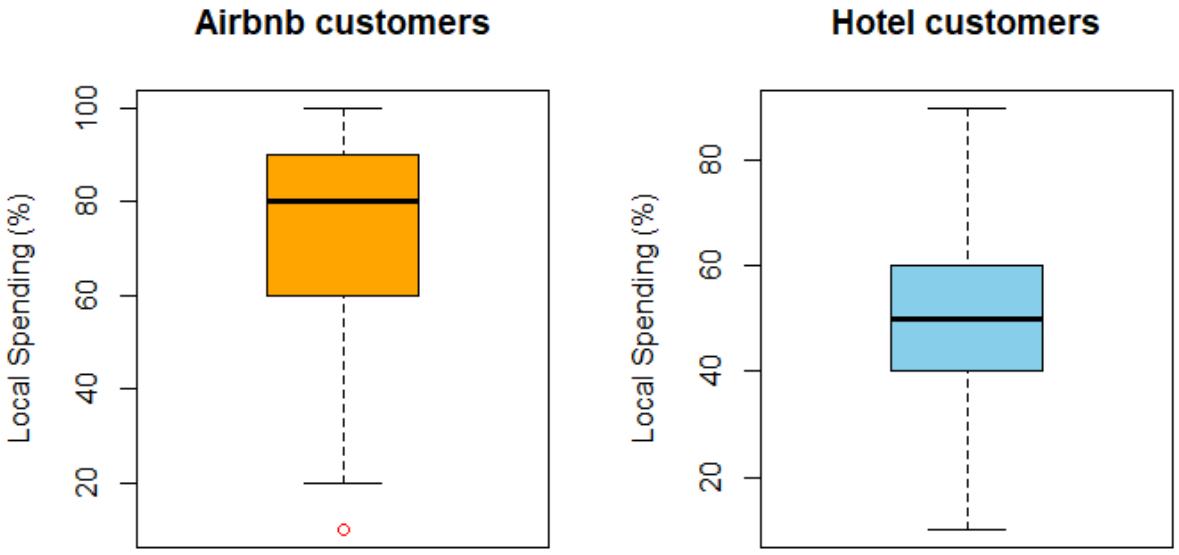

Figure 22. Outliers in the data for local spending levels of hotel and Airbnb customers

Source: Own edition

Sprent (2019), in his book, further emphasizes the need for such inference procedures that can mitigate the effects of contamination while still preserving valuable information in data. The author suggests several methods to accommodate outliers, including trimmed means, adaptive procedures, etc. However, he highlights one interesting and effective technique called winsorization, which involves reducing extreme observations to match the value of the most extreme remaining observation in each tail. By being an alternative method to trimmed mean, this method lessens the impact of outliers without entirely removing their influence. The reason behind this method is that outliers often contain useful location information, but they may exert

excessive influence unless adjusted. Therefore, winsorization was chosen to be the most applicable method to reduce the effect of the determined outliers without removing them totally. To reiterate, this process has been done by transforming the above-described outliers to be equal to the nearest non-outlier values in each subset.

4.3.2 Selection of statistical methods

According to the guidelines by Bryman and Bell (2011), it is not appropriate to apply just any statistical technique to any type of variables. Selected methods must be appropriately matched to the measurement levels of variables that are going to be generated by the research. This implies that a researcher must be fully familiar with the various classifications of variables. In addition, the size and nature of the sample also naturally limits the techniques that can be used.

Considering the aforementioned statements as well as the local procurement and spending rates (ratio measurement level) being dependent on the accommodation and tourist categories (nominal measurement level) respectively, appropriate quantitative methods should be selected. Below paragraphs elaborate the selection of tests which is also illustrated in *Figure 23*.

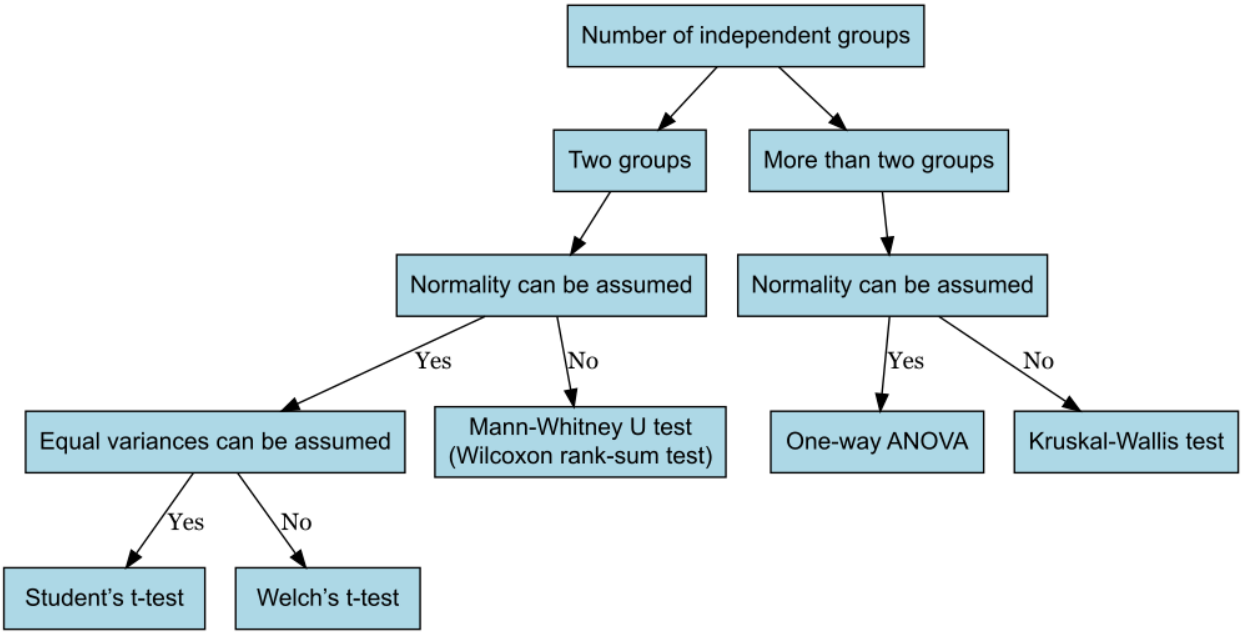

Figure 23. Flowchart for the selection of the statistical tests

Source: Own edition

In order to determine the most appropriate statistical test for comparing the groups, one-way ANOVA test was decided to be applied. One-way ANOVA is generally accepted as a powerful statistical method that is widely used for comparing means across multiple groups (Field, 2013). Having stated that, on the occasion that there are only two independent groups being compared, which is the case for all the hypotheses of the research, one-way ANOVA provides equal results as independent Student's t-test, making the Student's t-test the simplified version

of one-way ANOVA test for the case where is one independent variable with two groups (Sawyer, 2009; Emerson, 2017).

The t-statistic for the unpaired Student's t-test is calculated as:

$$t = \frac{\mu_1 - \mu_2}{s_p^2 \sqrt{\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

where s^2_p is the pooled variance and calculated as:

$$s_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

where μ_1 and μ_2 are group means, n_1 and n_2 are the sample sizes, and s_1 and s_2 are the group variances (Ruxton, 2006).

The null hypothesis for the Student's t-test is:

$$H_0: \mu_1 = \mu_2$$

meaning the groups means are same. In this case, the alternative hypothesis indicates the difference between the group means.

Furthermore, as the Student's t-test is a parametric test, there are several assumptions to be met in order to make sure that any result that will be achieved is going to be valid. These assumptions are independence of observations, normality of residuals and homogeneity of variances. When these assumptions are not satisfied, the results of the t-test can be misleading (Sawyer, 2009).

Therefore, necessary diagnostic tests were run in order to validate the aforementioned assumption. Merely, Levene's test for the homogeneity of variances (which has a null hypothesis of equal variances between groups) is more robust to non-normal data than Barlett's test (Yitnosumarto & O'Neill, 1986) and Shapiro-Wilk test for normality of the model's residuals have been run for this purpose. Moreover, each observation in all of the datasets represents a unique participant. This means the independence assumption is met for all datasets.

On the occasion that it was confirmed that all assumptions were met for the t-test test, its results were accepted to be reliable. Notwithstanding, while the Student's t-test is very sensitive for the violation of homogeneity of variances assumption, Welch's t-test, which is also known as the unequal variance t-test is more robust in this regard as it uses individual group variances and test statistic t` is calculated as:

$$t' = \frac{\mu_1 - \mu_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

where s_1^2 and s_2^2 are individual group variances (Ruxton, 2006).

Having stated that, on the occasion that the normality of residuals assumption is not satisfied as well, there was a need to utilize a more robust test instead. Nonparametric tests are quite advantageous as they do not assume a specific distribution for the data, such as normal distribution, which is why they are also called distribution-free tests (Madrigal, 2012). Such an advantage makes them very suitable and robust for datasets that do not meet the assumptions of parametric tests (Gibbons & Chakraborti, 2020).

Therefore, the Kruskal-Wallis test can be applied to identify significant differences between the groups. This non-parametric test is useful for comparing more than two independent groups. However, when applied to two groups, Kruskal-Wallis test serves as an equivalent of the Mann-Whitney U test (Conover, 1999). Since all research hypotheses involve only two groups, the Mann-Whitney U test was considered to be more appropriate.

The Mann-Whitney U test, which is also known as the Wilcoxon rank-sum test, is a nonparametric statistical test used in order to compare differences between two independent groups on the occasion that the dependent variable is either ordinal or continuous, while not being normally distributed (Mann & Whitney, 1947). The test therefore evaluates if the distributions of the two groups are identical. It ranks all the data from both groups together and then compares the sum of the ranks between the groups (Hollander, et al., 2015).

Henceforth, application of the Mann-Whitney U test will provide valid evidence for the hypotheses while considering the restrictions of the collected data.

U is calculated as:

$$U = mn + \frac{m(m+1)}{2} - T$$

where m and n are the sizes of the two groups and T is the sum of ranks for the first group (Mann & Whitney, 1947).

In the same vein with the student's t-test, the null hypothesis for the Mann-Whitney U test is that there is no statistically significant difference between the groups (MacFarland & Yates, 2016).

The threshold for rejecting the null hypothesis for the tests was set at a significance level of 5%, which is a generally accepted threshold for hypothesis testing (O'Donnell, et al., 2023). This means that if the p-value obtained from any of the tests is less than 0.05, the null hypothesis is going to be rejected. Such a scenario will indicate a statistically significant difference between groups being compared.

In addition to the statistical tests to analyze the group differences, descriptive statistics as well as data visualization techniques such as boxplots are also utilized to decide the direction of the detected differences.

This chapter demonstrated the methods used in this research. The next chapter includes the results achieved by using these methods.

5 RESULTS

This chapter presents the results of the study, beginning with an overview of the respondents' characteristics and followed by analysis of the statistical tests conducted to evaluate each hypothesis.

5.1 Respondents' characteristics

This section illustrates the notable findings derived from the collected data, including the response rates, regional distribution and other characteristics of the accommodation and tourist categories.

5.1.1 Accommodation categories

To begin with, it should firstly be reiterated that the accommodation data was collected based on two surveys: (1) hotel survey and (2) Airbnb survey as discussed in the section *4.2 Data collection*.

Overall, both surveys yielded a total of 122 complete responses from accommodation service providers in total, which was useful for the data analysis as can be seen from the *Table 4*.

In terms of the hotel survey, out of 241 targeted participants that have been invited, 58 hotel representatives have submitted full answers. While this meant slightly above 24% response rate for the hotel survey, 35 hotels belonged to the independent category and 23 operated within the chain framework.

When it comes to the Airbnb survey, out of 497 invitations sent, 64 resulted in meaningful responses that were useful for data analysis. At first glance, based on what was discussed in *4.2.2 Sampling approach and response rates calculation*, it formally corresponds to a response rate of just under 13%. However, it should also be stated that around 44% of the respondents owned more than one apartment. This means that in many instances, the invitations have been sent to the same owner, who was instructed to respond only once and ignore the survey if already filled. Therefore, when considering the unique owners, the effective response rate of the Airbnb survey can be estimated to be similar to that of the hotel survey, or even higher.

With regard to the regional distribution, responses varied between two study areas. Among Airbnb respondents, comparable numbers came from Budapest and the Lake Balaton areas. For hotels, independent hotels had more responses from Lake Balaton compared to Budapest, while chain hotels showed the opposite pattern with more responses coming from Budapest than from Lake Balaton.

Within the landlord-owned group of the Airbnb category, only 4 respondents answered that they manage at least 2 apartments. This indicates that even some of the locally embedded hosts may expand their portfolio within the area. By contrast, a substantial majority in the absentee-owned group reported renting several apartments which confirms that absentee owners are more prone to managing several properties away from the regions.

Accommodation type		Landlord-owned Airbnbs	Absentee-owned Airbnbs	Independent hotels	Chain hotels
N		*33*	*31*	*35*	*23*
Region	Budapest and CT	*19*	*16*	*11*	*17*
	Lake Balaton	*14*	*15*	*24*	*6*
Multiple apartments rented by owner	Yes	*4*	*24*	-	-
	No	*29*	*7*	-	-
Listing portals	Airbnb.com	*33*	*31*	*4*	*0*
	Booking.com	*6*	*15*	*31*	*23*
	Own website	*2*	*1*	*34*	*23*
	Expedia.com	*0*	*0*	*20*	*22*
	Other	*1*	*8*	*17*	*20*
Room capacity	Less than 50	-	-	*23*	*2*
	50-100	-	-	*8*	*5*
	100-200	-	-	*0*	*7*
	More than 200	-	-	*4*	*9*
Target group	Business	-	-	*5*	*9*
	Leisure	-	-	*27*	*13*
	Other	-	-	*3*	*1*

Table 4. Characteristics of the accommodation categories in the sample

Source: Own edition

In terms of the listing portals, some Airbnb respondents, especially those from the absentee-owned group, had indicated a presence on other platforms than Airbnb.com, mostly being listed on Booking.com. Hotels, however, demonstrated using different platforms more equally. Thus, while very few independent hotels were listed on Airbnb.com, most of them appeared on Booking.com as well as their own websites according to the survey results. On the other hand, chain hotels had no listings on Airbnb.com, with many of their listings being on Booking.com, their own websites, and Expedia.com. Finally, over 60% of the hotel respondents and a small fraction of the Airbnb respondents showed presence in another unlisted portal.

Additional details from the results of the hotel survey illustrate that independent hotels mostly had fewer than 50 rooms and mainly served leisure travelers. Conversely, chain hotels varied in room capacity and had a more balanced clientele of business and leisure travelers.

The above-mentioned details clearly indicate operational differences among accommodation categories.

5.1.2 Customers of the Airbnbs and hotels

Table 5 provides information about several characteristics of the survey respondents, comparing those tourists who stayed in Airbnb apartments and hotels.

Accommodation type		**Airbnb customers**	**Hotel customers**
N		*49*	*54*
Region visited	Budapest and CT	*36*	*34*
	Lake Balaton	*13*	*20*
Gender	Males	*21*	*28*
	Females	*28*	*26*
Age categories	U-24	*14*	*5*
	25-34	*16*	*12*
	35-44	*9*	*9*
	45-54	*8*	*12*
	55-64	*1*	*10*
	65+	*1*	*6*
Travel motivation of the respondents	Business	*3*	*5*
	Spa & Wellness	*2*	*7*
	Cultural	*24*	*28*
	Nature & Adventure	*14*	*11*
	Personal growth	*6*	*3*

Table 5. Characteristics of the tourist categories in the sample

Source: Own edition

Among Airbnb customers, a significant majority (36) visited Budapest and Central Transdanubia, while 13 visited the Lake Balaton region. Conversely, hotel customers were more evenly split in this regard, with 34 visiting Budapest and Central Transdanubia and 20 visiting Lake Balaton.

Cultural tourism was the main motivation among apartment customers, with 24 respondents choosing this as their main reason to travel. Those who were motivated by nature and adventure came second in this regard with 14 responses.

When it comes to the gender distribution, while data shows a slight male predominance in general, there were 21 males and 28 females in Airbnb apartments category. Conversely, hotel category had 28 males and 26 females which shows a more even split.

The age distribution indicates that the majority of tourists in both accommodation types were younger individuals as can be seen from the *Figure 24*. Among Airbnb apartment customers, the most represented age categories were 25-34 and under 24, with minimal representation from older age groups. On the other hand, for hotel customers, the 25-34 age group together with the 45-54 age group were the two largest, followed by the 55-64 age group, with few respondents from other age categories.

Hotel customers had similar distribution in terms of their travel motivations, with 28 respondents indicating cultural tourism as their main reason and 11 tourists answering nature and adventure as their motivation.

All in all, the respondents of the tourist survey were largely younger tourists, with a significant interest in cultural and nature and adventure tourism categories. There were also considerable differences in the regional distribution of visits between apartment and hotel customers. Apartment customers were more likely to visit Budapest and Central Transdanubia, while hotel customers visiting both regions more equally.

In terms of gender distribution, while the apartment customers category was slightly female-dominant, there were almost even number of males and females for hotel customers category.

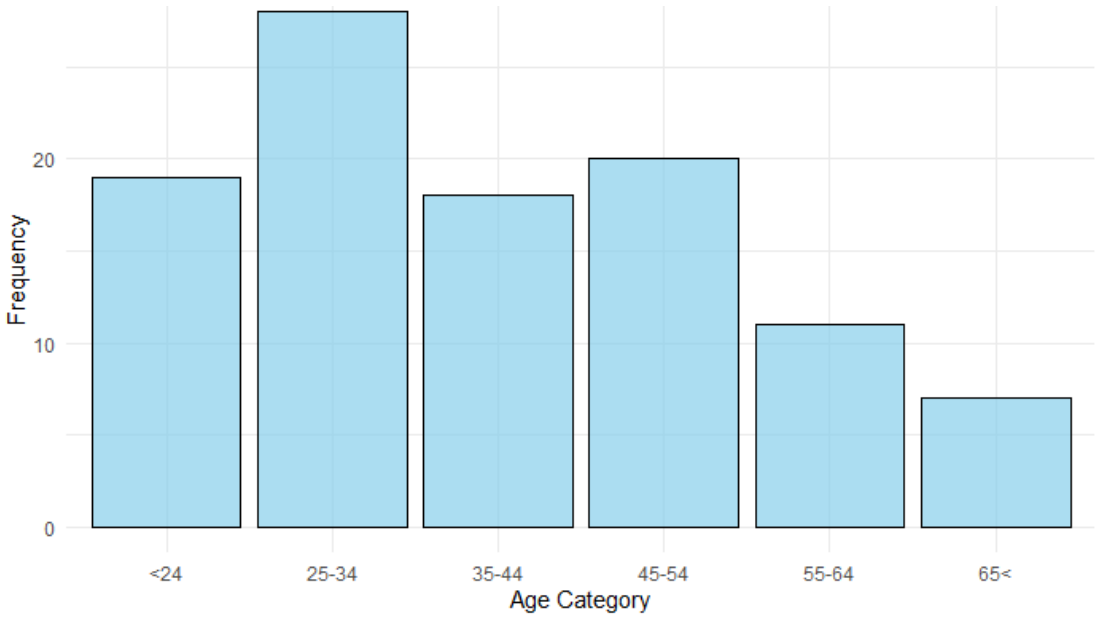

Figure 24. Distribution of age categories among responding tourists

Source: Own edition

5.2 Independent hotels versus chain hotels

This section provides empirical evidence for **H1**:

Independent hotels have a higher percentage of procurement from local sources compared to chain hotels in the studied Hungarian tourism regions.

In this regard, the analysis follows a two-stage approach: first, descriptive statistics outline the central tendencies and variability in the data. Second, inferential statistics evaluate the statistical significance of the observed differences by using hypothesis-testing methods.

Hence, these subsections determine whether operational autonomy of independent hotels, as hypothesized, results in greater reliance on local procurement networks compared to the chain hotel practices.

5.2.1 Descriptive statistics for H1

As shown in *Table 6* and *Figure 25*, the data indicate that independent hotels generally have higher local procurement rates than chain hotels. The measures of central tendency for independent hotels are notably higher. Based on the standard deviation of both groups, independent hotel's procurement levels show less variation as well.

Accommodation type		**Independent hotels**	**Chain hotels**
Local procurement	Mean	*67.3%*	*49.0%*
	Median	*70.7%*	*40.7%*
	SD	*21.5%*	*26.8%*

Table 6. Summary statistics for H1

Source: Own edition

This suggests that independent hotels rely more on local suppliers, probably because their autonomy in purchasing allows them to be more flexible in decision-making.

By contrast, chain hotels tend to follow centralized procurement practices that are set by corporate policies, which apparently results in a lower inclination for local sources in procurement when combined with economies of scale.

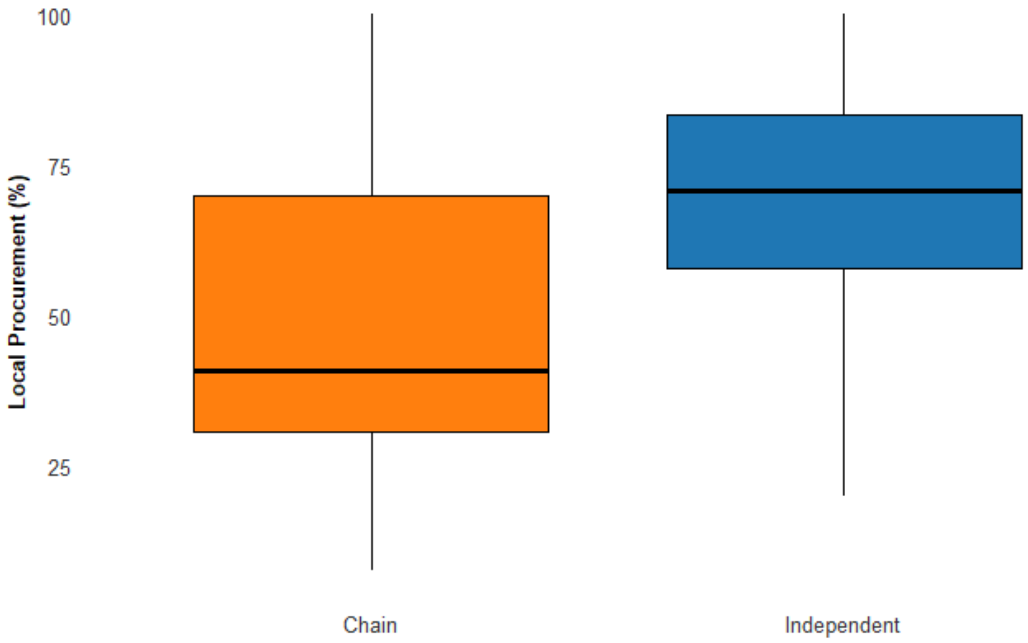

Figure 25. Box plots for hotel categories' local procurement levels

Source: Own edition

5.2.2 Test results for H1

Statistical analysis further supported the above observations. What stands out from the *Table 7* is, the t-test confirmed that the difference in local procurement between independent and chain hotels is statistically significant based on the significant p value. Importantly, diagnostic tests verified that the necessary assumptions for the t-test were also met, which means the results are reliable.

Test	**Statistic**	**Degrees of Freedom**	***ρ***
Student's t-test	t = 2.880	df = 56	$\rho = 0.006$
Levene's test for homogeneity of variance	F = 2.109	df = 1; 56	$\rho = 0.152$
Shapiro-Wilk normality test	W = 0.978		$\rho = 0.363$

Table 7. Test results for Hypothesis 1

Source: Own edition

To conclude, both the descriptive and inferential statistics support the hypothesis that independent hotels are more embedded within the local supplier network compared to chain hotels.

5.3 Landlord-owned Airbnbs versus absentee-owned Airbnbs

This section includes information about confirmation for **H2**:

Landlord-owned Airbnbs have a higher percentage of procurement from local sources compared to absentee-owned Airbnbs in the studied Hungarian tourism regions.

In this regard, both descriptive statistics and inferential statistics investigate whether the physical presence of hosts of landlord-owned Airbnbs, as supposed, cause higher integration with local supply networks compared to absentee-owned properties.

5.3.1 Descriptive statistics for H2

Summary statistics from *Table 8* and box plots in *Figure 26* demonstrate that landlord-owned Airbnbs have a higher percentage of local procurement than absentee-owned Airbnbs.

In simple terms, the results demonstrate that among respondents, landlord-owned properties consistently source a larger share of their supplies from local providers and show less variation in their procurement levels whereas absentee-owned Airbnbs have lower local procurement rates and more variability.

Accommodation type		**Landlord-owned Airbnbs**	**Absentee-owned Airbnbs**
Local procurement	Mean	*95.4%*	*83.8%*
	Median	*100.0%*	*90.0%*
	SD	*6.4%*	*15.0%*

Table 8. Summary statistics for Airbnb data

Source: Own edition

Therefore, the results support the hypothesis that landlord-owned Airbnbs are more embedded in the local community, and their procurement practices are more consistent compared to absentee-owned Airbnbs. Their local presence possibly allows them to build stronger relationships with local suppliers and service providers, leading to higher local procurement rates. Conversely, absentee-owned Airbnbs tend to manage multiple properties from outside the localities, which may result in a lower reliance on local sources.

Figure 26. Box plots of Airbnb categories' local procurement levels

Source: Own edition

5.3.2 Test results for H2

In order to confirm the above-mentioned pattern, looking at the *Table 9*, the t-test found a significant difference between the landlord-owned and absentee-owned Airbnb groups.

Test	Statistic	Degrees of Freedom	ρ
Student's t-test	t = 4.055	df = 62	$\rho < 0.001$
Levene's test for homogeneity of variance	F = 9.361	df = 1; 62	$\rho = 0.003$
Shapiro-Wilk normality test	W = 0.897		$\rho < 0.001$
Wilcoxon rank sum test	W = 258		$\rho < 0.001$

Table 9. Test results for Hypothesis 2

Source: Own edition

Nonetheless, the t-test's assumptions of equal variances and normality were not met, as indicated by significant results from Levene's and Shapiro-Wilk tests.

To address this, the Wilcoxon rank sum test (Mann-Whitney U test) was applied. This test, which does not require assumptions of the t-test confirmed the significant difference between landlord-owned and absentee-owned Airbnbs.

Therefore, both the statistical tests and the summary data support the hypothesis that landlord-owned Airbnbs are more embedded in the local community, which in turn contributes to a higher percentage of local procurement.

5.4 Airbnbs versus hotels

This section analyzes the validity of **H3**:

Airbnb properties have a higher percentage of procurement from local sources compared to hotels in the studied Hungarian tourism regions.

In this regard, first, descriptive statistics present the summary statistics and visualization for comparative procurement patterns between the two accommodation types.

Second, inferential statistical tests assess the above hypothesis through parametric and non-parametric methods in order to address potential assumption violations.

Both analyses examine whether the community-based nature of Airbnb operations results in higher local embeddedness than more established procurement systems of hotels.

5.4.1 Descriptive statistics for H3

It becomes evident from the *Table 10* that Airbnb properties tend to source a larger proportion of their supplies from local providers compared to hotels together with the box plots visualized in *Figure 27*.

Accommodation type		**Airbnbs**	**Hotels**
Local procurement	Mean	*89.8%*	*60.1%*
	Median	*93.3%*	*65.4%*
	SD	*12.7%*	*25.2%*

Table 10. Summary statistics for accommodation categories

Source: Own edition

Thus, Airbnbs not only report higher average local procurement but also show a more consistent pattern, with less variation in procurement levels.

This difference indicates that Airbnbs may have a stronger connection to the local economy, while hotels, especially those operating within chains, may be more integrated into centralized procurement networks.

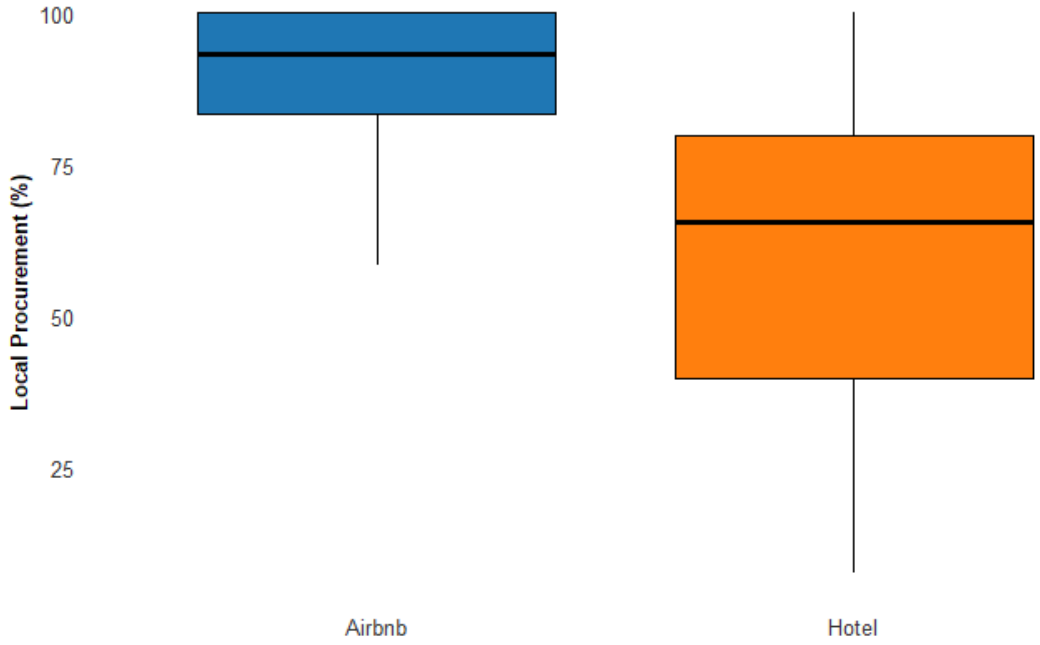

Figure 27. Box plots for the accommodation categories' local procurement levels

Source: Own edition

5.4.2 Test results for H3

The Student's t-test further revealed a significant difference between Airbnbs and hotels in terms of local procurement as can be seen from *Table 11*.

However, both Levene's test and the Shapiro-Wilk test showed violations of this test's assumptions.

To address this, the Wilcoxon rank sum test was conducted as a non-parametric alternative, and it effectively confirmed the significant difference between the two groups.

Therefore, as a conclusion, the hypothesis 3 assuming Airbnb properties procure a significantly higher percentage from local sources compared to hotels has been robustly confirmed.

Test	Statistic	Degrees of Freedom	ρ
Student's t-test	t = 8.335	df = 120	$\rho < 0.001$
Levene's test for homogeneity of variance	F = 26.601	df = 1;120	$\rho < 0.001$
Shapiro-Wilk normality test	W = 0.946		$\rho < 0.001$
Wilcoxon rank sum test	W = 3221		$\rho < 0.001$

Table 11. Test results for Hypothesis 3

Source: Own edition

5.5 Airbnb customers versus hotel customers

This section analyzes the empirical validity of **H4**:

Airbnb apartment customers spend a larger share of their non-accommodation budget on local goods and services compared to hotel customers in the studied Hungarian tourism regions.

In the same vein with the previous sections, this section also includes descriptive statistics as well as inferential statistics. Together, these analyses assess if the unique nature of Airbnb stays cause higher inclination for local engagement for their customers in comparison with the hotel counterparts.

5.5.1 Descriptive statistics for H4

The summary statistics for the tourist dataset are described in *Table 12*, which provides information about the local spending patterns.

The data indicates that Airbnb tourists tend to spend their non-accommodation budget more locally compared to those staying in hotels. The boxplots for both visitor categories illustrated in *Figure 28* also confirm the above-discussed pattern.

The importance of supporting local businesses was also rated higher by apartment guests compared to hotel guests on a scale of 1 to 5. This clearly suggests that apartment guests may have a stronger inclination towards supporting the local stakeholders during their stay.

Used accommodation type		Airbnb	Hotel
N		*49*	*54*
Share of locally-spent amount	Mean	*74.08%*	*47.41%*
	Median	*80.00%*	*50.00%*
	SD	*19.46%*	*20.39%*
Lodging costs were less than other spending	Yes	*35*	*20*
	No	*14*	*34*
Importance of locals (1-5)	Mean	*3.90*	*3.04*

Table 12. Summary statistics of tourist spending in the study areas

Source: Own edition

Therefore, the data showed that tourists staying in apartments not only spend a higher share of their budget locally but also value supporting local businesses more than hotel guests.

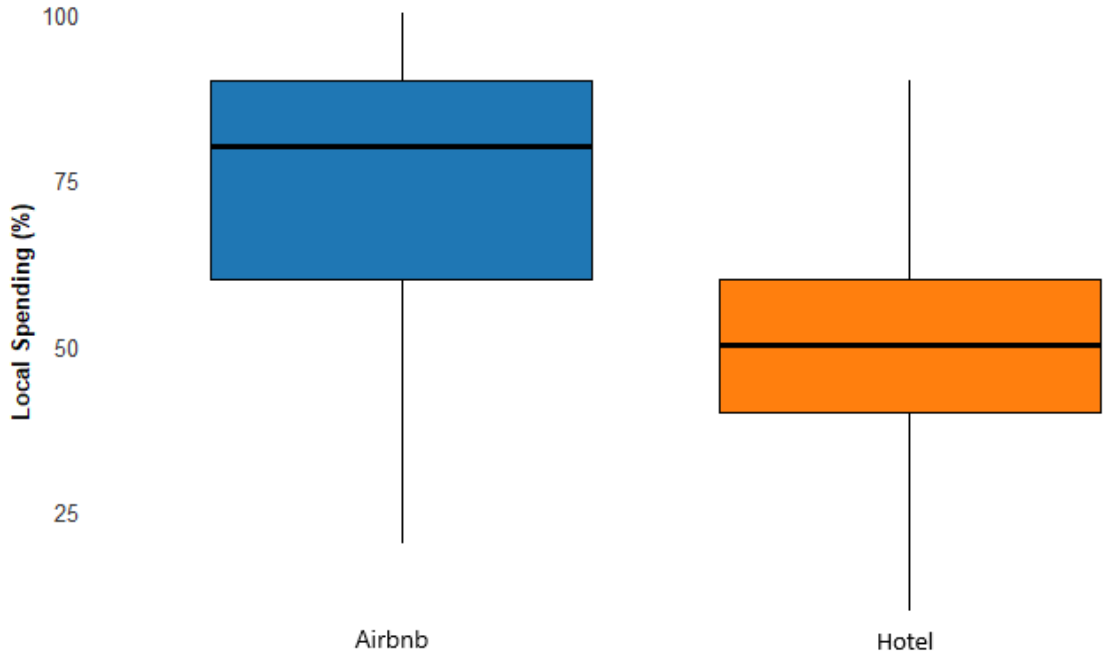

Figure 28. Box plots of responses from tourists grouped by accommodation choices

Source: Own edition

5.5.2 Test results for H4

The Student's t-test robustly confirmed the differences in local spending patterns of tourists. Thus, *Table 13* indicates the test resulted in a ρ-value less than the established threshold of 0.05 and the necessary assumptions of the test were met.

Test	Statistic	Degrees of Freedom	ρ
Student's t-test	t = -6.775	df = 101	$\rho < 0.001$
Levene's test for homogeneity of variance	F = 0.061	df = 1; 101	$\rho = 0.805$
Shapiro-Wilk normality test	W = 0.985		$\rho = 0.278$

Table 13. Test results for Hypothesis 4

Source: Own edition

Hence, the hypothesis 4 has successfully been proven to be correct based on the results of the utilized statistical approaches, which suggests that the type of accommodation plays an important role in terms of influencing tourists' local spending behavior.

To recapitulate, this chapter presented the main findings of the study. Accordingly, the following chapter will provide the discussion and interpretation of these results.

6 DISCUSSION

This chapter discusses the findings related to procurement practices across different hotel and Airbnb categories, as well as the spending behavior of tourists, merely their local economic embeddedness patterns.

As discussed in the section *2.4.1.1 Tourism economic impact studies,* numerous studies have raised concerns about the tourism industry's economic leakages and minimal benefits for the local economy which shows the importance of promoting such tourism practices that benefit the local economy. Thus, when tourism enterprises import most of their inputs outside localities, such practices lead to significant leakage from the tourism regions, limiting the beneficial effects of tourism for destinations (Vogt, 2008; Mitchell & Ashley, 2010; Lehmeier, 2015; Mayer & Vogt, 2016). Hence, the higher the dependency on imports, the greater the

leakage occurs. In order to prevent such a leakage, those responsible for the tourism projects ought to ensure that local inputs are procured for their projects (United Nations, 1999).

In the prior sections, the local embeddedness of different accommodation types in Hungarian tourism regions of Budapest and Lake Balaton was analyzed. In this regard, a comprehensive approach was utilized taking into account both the procurement practices of accommodations and tourist spending patterns. The findings mentioned in the previous chapter provide valuable knowledge about how various accommodation service establishments are embedded to the local economy and reveal noteworthy differences between independent and chain hotels, landlord-owned and absentee-owned Airbnbs, as well as between hotels and Airbnb apartments in general.

Having stated that, it is important to interpret the findings of this research within the regional contexts of the two study areas. In this regard, while the methodological approach applied standardized measurement tools across both regions for comparability, it is acknowledged that the structural and seasonal differences between these regions may affect the patterns of local embeddedness.

Therefore, it is recognized that any practical recommendations should consider the regional economic and tourism dynamics discussed in the section *4.1.2 Overview of the study areas.*

Next section discusses the findings from the analyzed accommodation establishments.

6.1 Accommodation type and local procurement levels

The results indicate that independent hotels procured a significantly larger share of their total supplies from local suppliers than chain hotels. Therefore, the idea that independent hotels are more inclined to maintain stronger ties with local businesses is confirmed, which can be explained with them having more autonomy in terms of decision-making for sourcing (Feinstein, et al., 2017; Adiyia & Vanneste, 2018) while standardization practices in chain hotels possibly making them incapable of practicing flexible procurement (Kamann & Gyurácz-Németh, 2023).

Hotels belonging to the independent category are also smaller in terms of room capacity as around 89% of them had less than 100 rooms in the sample analyzed, which can be a contributing factor for them to be more prone to the local supplies to save transportation costs. Hence, it can be stated that both absence of centralized purchasing structures and small size allow independent hotels to respond flexibly to local market conditions, and this enables a close relationship with suppliers in their region. Conversely, chain hotels may rely on national or international supply networks, leading to higher levels of economic leakage.

Furthermore, the abovementioned difference appears to be consistent across the study regions as depicted in the **Appendix 8**, while in the analyzed sample independent hotels being more prevalent in Lake Balaton and chain hotels more concentrated in Budapest and surroundings (*Table 4*).

Overall, while the above-stated finding is consistent with previous studies (Andriotis, 2002; Telfer & Wall, 2010; Mitchell, et al., 2014; Kim & Kim, 2015), by emphasizing the localized nature of smaller independent hotel operations as mentioned in *2.3.1 Hotels*, it also suggests

the need for further policy interventions to encourage chain hotels to integrate more local procurement practices.

Moreover, a similar trend was observed between the studied Airbnb accommodation categories, where landlord-owned properties demonstrated significantly higher local procurement levels than absentee-owned Airbnbs. The local presence of landlords potentially enabled them to engage more actively with nearby suppliers and service providers in the local area, which reflected their high economic embeddedness in the destinations. By contrast, absentee owners, which found managing multiple listings remotely, inclined to be relying more on outsourced services that are not necessarily based within the same region as the accommodation.

Additionally, as discussed in sections *2.3.3.2 Airbnb host heterogeneity* as well as *2.4.1.1 Tourism economic impact studies*, recent tourism research has increasingly recognized the heterogeneity of Airbnb hosts and the potential risks posed by commercialized or multi-listing models for local economies.

Based on the *Table 4,* considering that among respondents, 88% of the landlord-owned Airbnbs had only one listing, the landlord-owned Airbnbs in this research can be comparable to single-unit hosts while absentee-owned Airbnbs seems to resemble multi-host, professional listings as 77% of them reported having at least 2 listings.

Therefore, empirical findings of this research provide a strong support for concerns that were raised in previous studies (Ram & Tchetchik, 2022; Gyódi, 2023; Lee & Kim, 2023; Herrero Ballesta, 2024; Guttentag, et al., 2025) regarding the limited local benefits of absentee-owned short-term rentals. This study therefore builds upon the previous research by adding concrete evidence that ownership structure of Airbnb properties directly influences the degree of local economic embeddedness in the Hungarian tourism context.

It is also worth stating that, in the sample, landlord-owned and absentee-owned Airbnbs were nearly equally distributed across the study regions (*Table 4*). The observed difference in procurement behavior can therefore be more confidently attributed to ownership type than a regional context, which indicates a consistent pattern of stronger local embeddedness among landlord-owned Airbnb accommodations as described in the **Appendix 7**.

When comparing hotels and Airbnb properties as broader categories, the results revealed that Airbnb properties procured a larger share of their supplies from local sources than hotels. This finding is the major novelty of the research. The reason behind such results can be that hotels, particularly chain hotels, may face constraints owing to corporate supply chain agreements which reduce their embeddedness in the local economic environment.

This structural difference, previously theorized in the literature (Oskam & Boswijk, 2016; Wirtz, 2021), is empirically supported by the present findings. Thus, while numerous studies have analyzed the market impact of Airbnb on hotel revenues (Dogru, et al., 2020; Destefanis, et al., 2020; Yang, et al., 2021), the side-to-side comparison of how much each model contributes to local economies through procurement has remained unaddressed.

Hence, this research extends the understanding by showing that Airbnb accommodations, on average, maintain stronger ties with local suppliers which indicates a greater economic embeddedness.

Notwithstanding, it should also be stated that there exist such hotels which actively attempt to practice local sourcing as part of their sustainability initiatives. Thus, although they have been identified as putting less emphasis on local procurement percentagewise, it would be a big mistake to propose hotels as totally harmful establishments for the local economies.

Some hotel establishments apparently are putting strong emphasis on local suppliers. To illustrate, Mariott (2025) specifically state *"We aim near but high: sourcing the very best local supplies"* on the Hungarian branch website. However, prior research suggests that most hotels engage only in minimal partnerships necessary for strategic marketing and a competitive advantage, hence rarely prioritize a deeper, genuine collaboration with local suppliers (Adiyia & Vanneste, 2018).

Furthermore, research conducted in Veszprem district also indicates high multiplier levels (Karimov, et al., 2023) for hotels, while including other similar establishments as well in the calculations.

Finally, in the same vein with what observed for Airbnb and hotel ownership types, the difference in local procurement levels between hotels and Airbnb accommodations also appears consistent across both study regions as illustrated in the **Appendix 9.**

All in all, the local economic impact of Airbnbs, such as benefits of the local stakeholders that provide F&B, transportation and other products and services (Gold, 2019, p. 1587) have been confirmed based on the findings.

Findings on the non-accommodation spending of tourists are discussed in the next section.

6.2 Impact of accommodation type on tourist spending behavior

While procurement patterns show to what extent accommodation service providers are inclined to interact with local suppliers, the spending behavior of tourists represents another channel through which such establishments contribute to the local economy. Thus, the findings provide evidence that those surveyed tourists staying in Airbnb apartments allocated a larger share of their non-accommodation budget in local businesses in comparison with the tourists that stayed in hotels in the researched Hungarian regions.

While the findings support the corresponding research hypothesis, this may not necessarily mean Airbnb customers contribute more in absolute monetary terms to the local economy than the hotel guests. Thus, a lower percentage of a higher total budget which is often the case with hotel guests (Li, et al., 2022) may still result in greater total spending.

Having stated that, there possibly can be several factors contributing to such a difference found in percentage shares. Firstly, while hotel guests may rather rely more on such dining and services located close or within accommodations, apartment guests might be more prone to explore local markets, which may also result from Airbnbs removing the "invisible border" between the traditional neighborhoods and the tourist centers (Begin, 2022), hence, better blending with the local community.

Social communications, as well as authenticity of tourism consumption being identified as the main point of the Airbnb customers' experience (Yannopoulou, et al., 2013) and motivation

(Albaladejo & Díaz-Delfa, 2020) may also influence this pattern (Relph, 1976; 2008). In addition, this scenario effectively results in more diversified spending patterns for the Airbnb customers as indicated by Levendis and Dicle (2016).

Lastly, similar to the local procurement levels of the accommodation categories in the previous section, the differences in local spending levels between hotel and Airbnb customers were also observed to be consistent for both study regions as depicted in the **Appendix 10**.

Following the discussions above, the section below outlines practical recommendations.

6.3 Practical implications

This section includes the practical implications of the research findings for three main stakeholder groups: (1) Airbnb hosts, (2) hotel managers, and (3) tourism policymakers. The recommendations are based on the empirical evidence yielded from this study and aim to improve the local economic benefits through procurement and tourist spending practices.

6.3.1 Practical implications for Airbnbs

The results suggest that Airbnb properties, especially those owned by local landlords, are more locally embedded to their surrounding communities. Hence, such accommodation providers are more likely to purchase goods and services from local businesses, which is important in terms of supporting the local economy.

Having stated that, absentee-owned Airbnb are found to be less prone to source from local suppliers. In this regard, to increase the local economic benefits, such Airbnb hosts can focus on improving their engagement with local suppliers.

In addition, they can inform their guests about local markets, shops, and services, hence encourage tourists to spend their non-accommodation budget within the community which is found to be further increasing factor for the local economic impact of Airbnbs.

Moreover, the Airbnb hosts, particularly those of the absentee-owned ones, must also be aware of regulatory changes, such as those introduced in Budapest that may influence their operations. In fact, they need to take into consideration that investing too heavily in short-term rentals in the same area can eventually make them a detrimental element within the local community by escalating issues such as overcrowding and lack of housing which may result in even stricter rules for them in future.

Therefore, by taking into consideration the requirements and benefits of the locals, Airbnb hosts can sustain their own businesses while being economically beneficial within the tourism sector.

6.3.2 Practical implications for hotels

The results indicate that independent hotels rely more on local suppliers compared to chain

hotels, while both types of establishments can further improve their contributions to the regional economy. In this regard, sourcing locally can be more challenging for chain hotels due to centralized procurement systems, however, they can still improve their economic contributions by integrating local products into their supply chains where possible. Thus, encouraging corporate headquarters to allow more flexibility in procurement decisions may enable hotel branches to purchase more goods from local businesses.

Furthermore, collaborating with local tourism boards to create guest packages that include discounts at regional attractions or businesses can encourage visitors to engage more with the community, benefiting both hotels and local enterprises.

All in all, hotels can increase their impact by improving local collaborations further, which not only supports regional businesses but can also attract guests who appreciate authenticity.

6.3.3 Practical implications for policymakers

The findings of this research provide useful policy considerations for maximizing the local economic benefits of tourism in the Hungarian regions of Budapest and Lake Balaton. Results indicate that certain categories of accommodations tend to engage more with local suppliers and businesses than others. Such information can be an assisting factor for policymakers for preparing regulations that attempt to encourage local embeddedness and to spot possible missing links of activities that may hinder further local development (Kamann, 1986).

However, as the results are based on the percentage shares of local procurement and local tourist spending, this does not provide evidence on absolute monetary amounts. The results demonstrate the inclination for local procurement rather than the total economic impact. A higher percentage of local procurement or spending by a particular group does not automatically mean a greater contribution to the local economy in absolute terms as a lower percentage of a larger total budget may still result in a higher monetary impact.

Firstly, the significant differences observed between independent and chain hotels suggest that independent hotels demonstrated more tendency to source from local suppliers as their smaller size and greater flexibility in procurement decisions allowed them to do so. In contrast, chain hotels usually rely on centralized supply systems, which can reduce their local procurement rates. Therefore, authorities may consider incentive schemes, such as tax reductions or certification programs for hotels that prioritize local sources in their supply chains, also considering previous research found that higher prices can be a discouraging aspect for supplying from locals (Argyropoulou, et al., 2019). Such policies can potentially motivate chain hotels to increase their purchases from local businesses, therefore increasing their contributions to the local economy. It is especially important because chain hotels generally have high operational budgets, hence such incentives can potentially result in substantial increase in terms of the amount spent locally.

From the regional perspective, in the Lake Balaton tourism region, as the independent hotels are more dominant, targeted local sourcing incentives could prioritize supporting existing procurement patterns and further strengthen supplier networks. Conversely, in Budapest, where chain hotels are more prevalent, policy tools might need to focus more on encouraging

procurement flexibility at the corporate level and developing partnerships between hotel branches and urban micro-enterprises.

Secondly, the distinction between landlord-owned and absentee-owned Airbnb properties also necessitates differentiated regulatory approaches. Thus, landlord-owned Airbnbs were found to procure more from local suppliers compared to absentee-owned properties. Hence it can be stated that landlord-owners are more rooted in the local community hence having stronger connections with local stakeholders. This indicates that the policy measures that consider implementing regulations prioritizing local hosts, such as simplified licensing processes or reduced administrative burdens for single-unit, landlord-owned listings have a higher chance of success. Such measures could support local entrepreneurship while limiting the growth of large-scale, absentee-owned operations that may contribute less to the regional economy.

In the same vein with the hotels, regional differences should also be considered when regulations are applied to the Airbnbs as well. For the Lake Balaton, where tourism is more seasonal, local host support programs could aim peak months to encourage short-term but efficient supplier engagement. In contrast, in Budapest and surroundings, which face year-round housing pressures, stricter controls on multi-listing, absentee owners might be reasonable alongside support for landlord owned listings who found to have stronger local integration.

Furthermore, empirical evidence from previous research confirms that short-term rental distribution usually clusters outside central zones, with studies documenting median distances >5km from major tourist landmarks in European cities (Herrero Ballesta, 2024). Such spatial pattern suggests that in destinations like Budapest, core-area gentrification is less likely to be due to Airbnbs than other commercial pressures, meaning citywide regulations can be counterproductive. Instead, geographically targeted policies, such as heritage-district permitting restrictions or flexible zoning for peripheral neighborhoods could better mitigate the housing needs.

On the other hand, in seasonal lake destinations like Lake Balaton, where Airbnbs primarily serve family tourism, policies should prioritize incentivizing embeddedness by requiring host-producer partnerships. Such approaches align with Airbnb guests' demonstrated preference for authentic, community-connected stays while also increasing local economic benefits.

Notwithstanding, any regulatory intervention that targets Airbnb requires careful balancing. Thus, while as the over-promoting of the Airbnb apartments could intensify mass tourism and increased housing prices (Duso, et al., 2024), exceedingly restrictive regulations may reduce accommodation supply, limit tourist options, and harm small-scale local hosts who contribute positively to the community (Airbnb, 2024a).

It is also argued that regulating short-term rentals generally only leads to temporary reductions in listings, as platforms and hosts often adapt to the rules over time (von Briel & Dolnicar, 2021). Moreover, geographical restrictions can raise the number of listings in surrounding districts of cities. (Hübscher & Kallert, 2023). For instance, the Hungarian government's recent decision to suspend new short-term rental permits in Budapest from 2025 reflects growing concerns over housing affordability and neighborhood quality of life (Ministry of National Economy, 2024; Office of National Assembly, 2024). While this step aims to reduce pressure on the housing market, it is also important to ensure that the positive economic contributions of locally embedded Airbnb hosts, such as income of those stakeholders providing F&B,

transportation (Gold, 2019, p. 1587) as well as increased tax revenues (Forgacs & Dimanche, 2016) are not unjustifiably damaged. Hence, a differentiated approach, focusing more heavily on absentee-owned operators while supporting local, landlord-owned hosts can offer a more balanced solution. Such targeted regulation approaches are observed in other European cities as well, where some authorities provide exemptions or simplified rules for single-unit hosts (Falk & Scaglione, 2024).

Furthermore, it has been found that Airbnb guests tend to spend a greater share of their non-accommodation budget in local businesses compared to hotel guests. This indicates that Airbnb customers might engage more actively with local markets and service providers which increase the local economic impact of their stay. However, it is once again necessary to mention that these findings refer to spending as a percentage of tourists' non-accommodation budgets. Since hotel guests may have larger total travel budgets, their total local spending in absolute monetary terms could still exceed Airbnb tourists' spending levels. Hence, policymakers and destination marketing organizations (DMOs) can support and introduce such initiatives that encourage both hotel and Airbnb guests to engage more with local businesses. To illustrate, campaigns that inform and support accommodations to cooperate with local artisans or tour operators, as well as strategies to increase tourists' awareness of regional products and services can be designed.

Moreover, it should be noted that the procurement volumes of Airbnb hosts are naturally much lower than those of hotels. Therefore, while Airbnbs show a higher percentage of local sourcing, the absolute monetary impact of their procurement might still be smaller than that of hotels, even those with lower local procurement rates. In addition, considering that certain hotels have started to prioritize local procurement as part of their sustainability strategies, policy interventions could also focus on recognizing and promoting these efforts. Supporting the best practices from hotels that are actively engaging with local suppliers could encourage other establishments to follow this pathway. Government-backed awards or public acknowledgment of such efforts can increase positive examples within the sector.

Finally, continuous monitoring and data sharing between public authorities and accommodation platforms like Airbnb is essential for effective governance. It is claimed that local governments usually struggle to obtain accurate information on short-term rentals, which hinders their ability to design appropriate regulations (Smigiel, 2020; Bei & Celata, 2023). Hence, improving cooperation between municipalities and accommodation platforms should improve data transparency and enable better-targeted policies that balance tourism development with local community interests.

In conclusion, the research results demonstrated that a "one-size-fits-all" regulatory approach is not likely to be effective, especially considering most of the regulatory frameworks evolve over time and some are reviewed and modified regularly (von Briel & Dolnicar, 2021). Instead, policies should be adjusted based on the specific characteristics of accommodation service providers. In this regard, considering the results, distinguishing between independent and chain hotels, as well as landlord-owned and absentee-owned Airbnbs is especially important. Hence, by encouraging local procurement and promoting tourist engagement with local businesses, policymakers can work toward ensuring that tourism development contributes more effectively to regional economic growth and protect the well-being of local communities. Notwithstanding, all procurement and spending figures should be interpreted with caution as

the research measures relative shares, not absolute monetary impacts. Future studies should try to capture both dimensions to fully understand and optimize the economic effects of tourism in Hungarian regions.

Below section discusses the theoretical contributions of this research.

6.4 Theoretical contributions

This dissertation contributes theoretically to the fields of tourism economics, local embeddedness, and accommodation services. Thus, it builds on the previous research by identifying gaps and offering new insights that improve academic understanding in the following ways:

Expanding the understanding of filière and local embeddedness in tourism

While prior studies, such as, Andriotis (2002), Telfer and Wall (2010), Mitchell, et al. (2014), and Thomas-Francois, et al. (2017) emphasized the importance of local supply chains in tourism and discussed procurement broadly, most lacked a systematic, side-by-side comparison of different types of accommodations using empirical procurement data.

This research addresses that gap by directly measuring and comparing the local procurement behaviors of (1) independent versus chain hotels, (2) landlord-owned versus absentee-owned Airbnbs as well as (3) hotels versus Airbnbs.

Thus, the research extends the filière approach by disaggregating accommodation actors and also demonstrating how organizational form and ownership structures directly affect local embeddedness. Additionally, as Airbnbs were also integrated into the filière literature, which has traditionally focused on hotels, this study also bridges older tourism network models with newer platform-based accommodation systems.

Moreover, the findings of this research validate the theoretical suggestion that accommodation sub-categories of hotels and Airbnbs affect their procurement practices, hence determine the extent they are embedded in local networks due to their decentralized decision-making, agreeing with Adiyia and Vanneste (2018) as well as Kamann and Gyurácz-Németh (2023).

Refining Airbnb host typologies

This research empirically develops Airbnb host categories as it proves Guttentag's (2015) initial theoretical classification. While earlier studies (Ram & Tchetchik, 2022; Gyódi, 2023; Lee & Kim, 2023; Herrero Ballesta, 2024; Guttentag, et al., 2025) explored Airbnb professionalism, they often used listing volume as a proxy.

Therefore, this dissertation refines the theory by showing that ownership structure and local presence better explain differences in procurement behavior and economic embeddedness rather than just listing count or perceived professionalism. In doing so, it enhances the framework of host heterogeneity not only in market strategy but also in local socio-economic impact.

Integrating tourist spending behavior into local embeddedness analysis

Previous studies have examined tourist spending patterns (Sthapit, et al., 2022; McKercher, et al., 2023) and others focused on tourist motivation and authenticity (Yannopoulou, et al., 2013; Albaladejo & Díaz-Delfa, 2020). However, few have empirically linked these insights to differences in accommodation type.

In this dissertation the economic geography of spending was connected with accommodation choice, demonstrating that Airbnb guests tend to spend a higher proportion of their non-accommodation budget locally. This provides a missing behavioral layer to local embeddedness theory and hence integrates the tourist-side and supplier-side interactions into a unified model.

Methodological contributions

Finally, the research design addresses limitations in prior studies, such as Andriotis (2002) and Dusek, et al. (2011) who relied on rough estimations of local procurement. Thus, this study provides a more precise framework for measuring local embeddedness as it employs a detailed survey methodology and robust statistical analysis.

This empirically grounded, comparative approach can serve as a template for future studies exploring local embeddedness in tourism, especially as platform economies continue to reshape the sector.

To recapitulate, the above-described theoretical contributions strengthen the conceptual tools available for understanding how tourism accommodation systems, both traditional and platform-based, interact with local economies.

6.5 Limitations of the research

In spite of the importance of the research results, the study has its own limitations as well. First of all, the study mainly focused on comparing Airbnb apartments and hotels, however, it did not take into account the other existing types of accommodations, such as guesthouses and hostels. Including such accommodation categories in future studies may provide a better perspective. Moreover, due to the fact that the hotel sample included only those hotels that are members of HHRA, it should also be considered that some rural establishments may possibly be underrepresented in this study.

Additionally, self-reported data was used to assess procurement practices and tourist spending behavior. While every effort was made to design clear and unbiased survey questions, there is always a risk of response bias as participants may have either overestimated or underestimated their local sourcing or spending patterns. Complementary data from financial records or official procurement documents could provide more objective verification of the reported figures in future studies.

It should also be considered that ideologies, political connections, social trust and other similar aspects are also relevant for understanding local embeddedness, which were not included in the scope of this study due to the difficulty of measuring them in a standardized, comparable way.

Furthermore, the study lies in its focus on procurement and spending percentages rather than absolute economic impact. While the findings confirm differences in local procurement rates between accommodation types, this does not directly measure total economic contributions.

Another limitation is that, while the study included two different tourism regions, it did not explicitly control the regional context in the statistical analyses. Although descriptive and interpretative efforts were made to highlight regional differences, future work could benefit from modeling region-specific effects or conducting region-by-category comparisons to more precisely isolate contextual factors that may influence local embeddedness.

To reiterate, despite the above-mentioned limitations, the research makes a significant contribution to understanding the economic role of different accommodation types. Hence, by addressing the abovementioned limitations, future studies can build on and improve this research's findings and offer a more detailed understanding of the impacts of different types of accommodations on the local economy which is discussed in the next section.

6.6 Further research

Based on the limitations identified, several promising areas for future research become apparent. First, future studies could incorporate a longitudinal approach and track changes in procurement patterns as well as tourist spending over periods. This would help to assess how economic conditions, regulatory changes or shifts in consumer behavior impact local embeddedness in the accommodation sector.

In addition, the actual monetary flows generated by different accommodation types can also be analyzed by comparing total local expenditures such as annual supplier contracts and guest spending volumes. This would be further helpful if higher procurement rates were translated proportionally to greater economic contributions in absolute terms.

Future research could also expand on the findings of this study by explicitly comparing local embeddedness patterns across regions using stratified models or interaction effects by using a more comprehensive data that includes other tourism regions as well.

Moreover, by integrating qualitative research methods, such as in-depth interviews with accommodation providers or tourists, local suppliers, and policymakers can complement the quantitative research findings. Thus, such additional information can potentially be fruitful to better understand the motivations behind procurement choices, barriers to local sourcing, as well as strategies for improving economic linkages within the tourism industry.

7 RESEARCH RESULTS SUMMARY AND CONCLUSIONS

Following the discussions of the previous chapter, this chapter includes the summarization of the most important research results as well as final conclusions.

7.1 Research results summary

This section includes the novelty of the research as well as the collection of the theses.

7.1.1 Novelty of the research

Based on the findings there are several contributions of this research that can be considered as novelty as listed below:

- This study analyzed both procurement practices of accommodation service providers and the spending behavior of tourists to assess local economic embeddedness, which is an approach not combined in existing tourism research.

- Unlike previous studies, this research empirically compared independent hotels, chain hotels, landlord-owned Airbnbs, and absentee-owned Airbnbs altogether in terms of local procurement.

- While the distinction between landlord-owned and absentee-owned Airbnbs has been discussed theoretically, this study is the first to empirically prove that landlord-owned Airbnbs are significantly different from absentee-owned ones in terms of sourcing from local suppliers.

- The finding that Airbnb properties, on average, procure a larger share of supplies locally than hotels is a novel contribution not addressed in prior literature.

7.1.2 Collection of theses

Thesis 1

It has been confirmed that independent hotels source a significantly larger share locally than chain hotels in the studied Hungarian tourism regions.

This thesis depicts that ownership category is an important factor in terms of local embeddedness of hotels.

Thesis 2

It has been empirically validated that landlord-owned Airbnbs procure larger share of their supplies from local suppliers than absentee-owned properties in the studied Hungarian tourism regions.

This thesis supports the theoretical distinction between host types while showing the role of host presence in local economic embeddedness.

Thesis 3

Results proved that Airbnb properties source a larger percentage of supplies locally compared to hotels in the studied Hungarian tourism regions.

This thesis indicates accommodation type is an important factor for local embeddedness. However, absolute monetary impacts may also depend on operational scales.

Thesis 4

It has been found that Airbnb guests allocate a greater proportion of their non-accommodation spending to local businesses than hotel customers in the studied Hungarian tourism regions.

This thesis shows accommodation type is a significant factor for local spending propensity of tourists. Notwithstanding, total monetary contributions may also depend on the amounts spent by tourists.

All in all, the findings offer a clearer understanding of how accommodation ownership types influence local economic embeddedness. Hence, the study presents an integrated view of local economic dynamics in the tourism industry.

The next section provides the final conclusions of this research.

7.2 Conclusion

This dissertation examined the local economic embeddedness of hotel and Airbnb categories in the Hungarian tourism regions of Budapest and surroundings as well as Lake Balaton. This has been done by analyzing both their procurement practices and the spending behavior of their guests. Through comparisons between independent and chain hotels, landlord-owned and absentee-owned Airbnbs, as well as between hotels and Airbnbs more broadly, the research revealed how different accommodation models are inclined to contributing to the local economies. The findings confirm that both accommodation type and ownership structure significantly influence local procurement levels and tourist spending patterns, with important implications for policymakers and industry stakeholders.

Independent hotels were found to source a greater share of their supplies locally than chain hotels, which reflects their strong ties to regional supplier networks. In the same vein, landlord-owned Airbnbs were more locally embedded than absentee-owned ones, suggesting that physical owner presence results in greater local economic engagement. On a broader level, Airbnb properties showed higher local procurement rates than hotels, which is in line with their flexible and often more informal sourcing practices.

The study also showed that Airbnb guests allocate a larger share of their non-accommodation budget to local businesses compared to hotel guests. However, this does not automatically mean that their total monetary contribution is higher, as hotel guests may have larger overall travel budgets.

From a practical standpoint, these findings provide guidance for enhancing economic benefits of tourism. Thus, policymakers could encourage chain hotels to integrate more local suppliers and consider incentives for locally embedded Airbnb hosts. DMOs may also support initiatives

that encourage all tourists, regardless of accommodation type, to engage more with local businesses, therefore strengthening local economic impact of the industry.

In addition to the practical recommendations, this research makes theoretical contributions to the academic understanding of tourism embeddedness. It offers empirical comparisons of local embeddedness across accommodation types and ownership models. Moreover, conceptualizations of local embeddedness in platform-based tourism accommodations were refined which strengthens the empirical foundations of Airbnb host typologies. Furthermore, the integration of both supply-side and demand-side behaviors into a unified analysis represents a novel methodological advancement, which enables a more comprehensive understanding of how accommodation structures influence local economic outcomes.

The findings also contribute to the broader debate on tourism development and economic resilience. Hence, as tourism industry grows in Hungary, ensuring that local communities benefit from visitor spending should remain a priority. A balanced regulatory approach is essential to manage the expansion of Airbnbs while avoiding negative side effects such as housing shortages or overtourism. In this regard, strengthening hotel-supplier networks, supporting small-scale hosts, and promoting authentic, community-based activities can result in a more inclusive and resilient tourism practices.

To conclude, policies that promote stronger local economic connections across all types of accommodation are key to ensuring that tourism growth leads to sustainable development. By addressing the limitations outlined in the previous chapter and expanding future research into areas such as absolute spending, a better understanding of economic role of tourism can be achieved. Finally, building a more resilient and inclusive tourism sector will require long-term collaboration and transparency among policymakers, businesses, and local communities.

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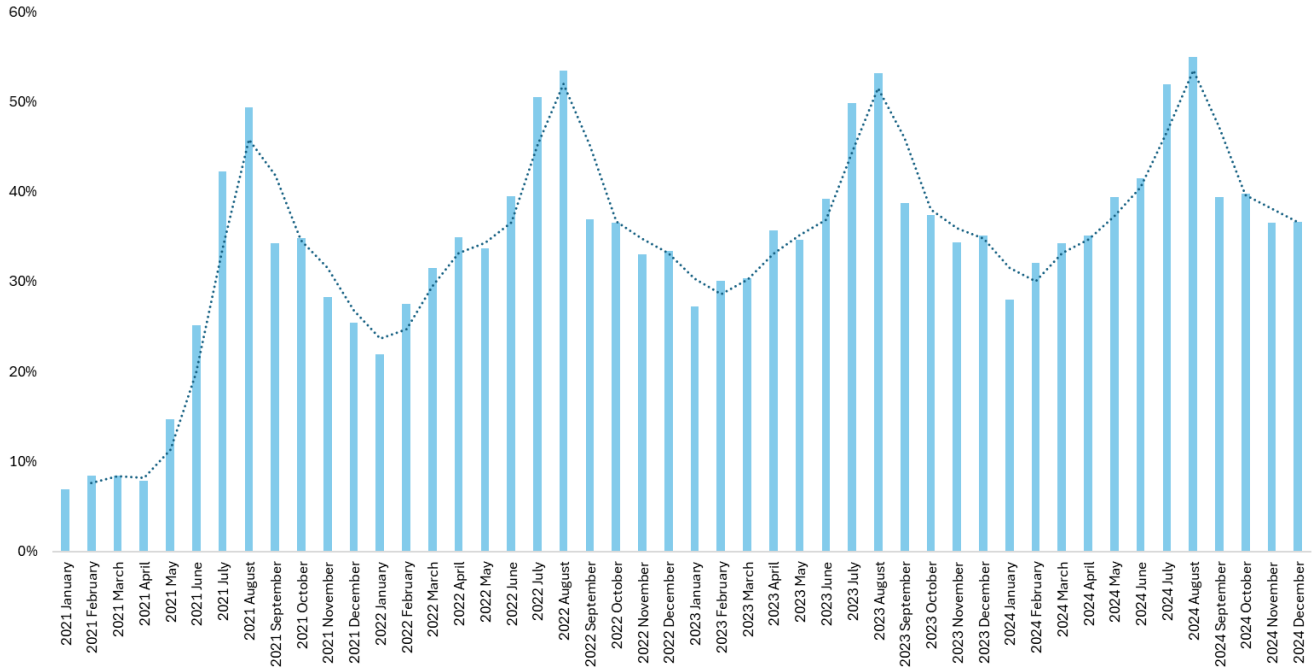
APPENDICES

Appendix 1. Occupancy rates of bed-places in Hungary, 2021-2024



Source: Own edition based on data from HCSO (2025d)

Appendix 2. Power Query web scraping code for Budapest region's hotel data extraction

```
let
  // Function to get data from a single page
  GetPage = (PageNumber as number) as table =>
  let
    Source =
Web.BrowserContents("https://www.hah.hu/tagok?type=hotels&region=2&accommodation=&
capacity=&page=" & Number.ToText(PageNumber)),
    ExtractedTable = Html.Table(Source,
      {{"Hotel", ".text-3xl"},
       {"Room Capacity", ".border-t-\[\#B9B9B9\] *"},
       {"Category", ".py-0\.5"},
       {"Address", ".py-0\.5 + *"},
       {"Phone", ".w-\[282px\] > :nth-child(4)"},
       {"Website", ".flex-wrap DIV:nth-child(5) *"},
       {"Email", ".w-\[282px\] > :nth-child(6)"}
      },
      [RowSelector=".lg\:space-x-4"]),
    CustomColumn = Table.AddColumn(ExtractedTable, "Region", each "Budapest")
  in
    CustomColumn,

  // Determine the total number of pages
  TotalPages = 17,

  // List of page numbers
  PageNumbers = {1..TotalPages},

  // Get data from all pages
  AllPages = List.Transform(PageNumbers, each GetPage(_)),

  // Combine data from all pages
  CombinedData = Table.Combine(AllPages),
```

Source: Own edition

Appendix 3. Power Query web scraping code for Balaton region's hotel data extraction

```
let
  // Function to get data from a single page
  GetPage = (PageNumber as number) as table =>
  let
    Source =
Web.BrowserContents("https://www.hah.hu/tagok?type=hotels&region=1&accommodation=&
capacity=&page=" & Number.ToText(PageNumber)),
    ExtractedTable = Html.Table(Source,
      {{"Hotel", ".text-3xl"},
       {"Room Capacity", ".border-t-\[\#B9B9B9\] *"},
       {"Category", ".py-0\.5"},
       {"Address", ".py-0\.5 + *"},
       {"Phone", ".w-\[282px\] > :nth-child(4)"},
       {"Website", ".flex-wrap DIV:nth-child(5) *"},
       {"Email", ".w-\[282px\] > :nth-child(6)"}
      },
      [RowSelector=".lg\:space-x-4"]),
    CustomColumn = Table.AddColumn(ExtractedTable, "Region", each "Balaton")
  in
    CustomColumn,

  // Determine the total number of pages
  TotalPages = 17,

  // List of page numbers
  PageNumbers = {1..TotalPages},

  // Get data from all pages
  AllPages = List.Transform(PageNumbers, each GetPage(_)),

  // Combine data from all pages
  CombinedData = Table.Combine(AllPages),
```

Source: Own edition

Appendix 4. Survey questions for the tourists' spending patterns

Basic information

Please write where you are from.

- Country of origin

Please indicate your gender (Male/Female)
Choose one of the following answers

Male

Female

No answer

Please indicate your main travel motivation (Business or Leisure) Type
Choose one of the following answers

Business

Cultural

Spa&Wellness

Nature&Adventure

Personal Growth

Which city (or cities) did you stay during your visit?

- City name(s)

Please indicate which accommodation did you stay.

Choose one of the following answers

Hotel

Apartment

Which age category do you belong?
Choose one of the following answers

24 years or younger

25-34 years

35-44 years

45-54 years

55-64 years

65 years and above

Spending pattern

Here we would like to ask questions to know what part of the money you have spent remained in the local area.

How much did you spend for accommodation? Please mention the currency as well.

Please estimate what percentage of your travel spending (excluding accommodation) went to local businesses, such as restaurants, shops, and attractions. (Food and beverage, transportation, tourist attraction, other entertainment).
Choose one of the following answers

10%

20%

30%

40%

50%

60%

70%

80%

90%

100%

The amount spent on other things was more than the money spent on accommodation.
Choose one of the following answers

Yes

No

How important was it for you to support local businesses/buy local good & services during your visit?

1 - not important at all;

5 - very important

Source: Own edition

Appendix 5. Survey questions for the Airbnb owners

Basic information

Please indicate the type (Landlord-owned or absentee-owned) of your Airbnb listing.

- Landlord Owned means someone is present at the apartment when the client comes

This is a question help text.

Choose one of the following answers

Landlord-owned

Absentee-owned

Please indicate which region the apartment is located in.
Choose one of the following answers

Budapest and C.T.

Lake Balaton

Do you own any other such apartments?
Choose one of the following answers

Yes

No

Where do you list your apartment?
Select all that apply

Airbnb.com

Booking.com

Own website

Expedia.com

Another similar service

Supply-related information

Please indicate if you outsource (buy from another company) any of the listed services.

Choose "Uncertain" if you partly outsource any service.

Cleaning service	Yes	Uncertain	No
Bed sheets and other laundry	Yes	Uncertain	No
Food and Drinks	Yes	Uncertain	No

Please indicate what proportion (%) of your supply is locally sourced (the district that the apartment is located) for each category listed.

- Cleaning service
- Bed sheets and other laundry
- Food and drinks

Source: Own edition

Appendix 6. Survey questions for the hotel representatives

Basic Information

Please indicate the room capacity of the hotel.
This is a question help text.

Choose one of the following answers

Less than 50

50-100

100-200

More than 200

Please indicate the type (independent/chain) of the hotel.
Choose one of the following answers

Independent

Chain affiliated

Please indicate the target group of the hotel.
Choose one of the following answers

Leisure

Business

Other

Please indicate the region where the hotel is located.
Choose one of the following answers

Budapest and surroundings

Lake Balaton

Where the hotel rooms are listed?
Select all that apply

Booking.com

Own website

Airbnb.com

Expedia.com

Other similar service

Supply-related information

Please indicate if the hotel outsources (buys from another company) any of the listed services.

Click "Uncertain" if any service is partly outsourced.

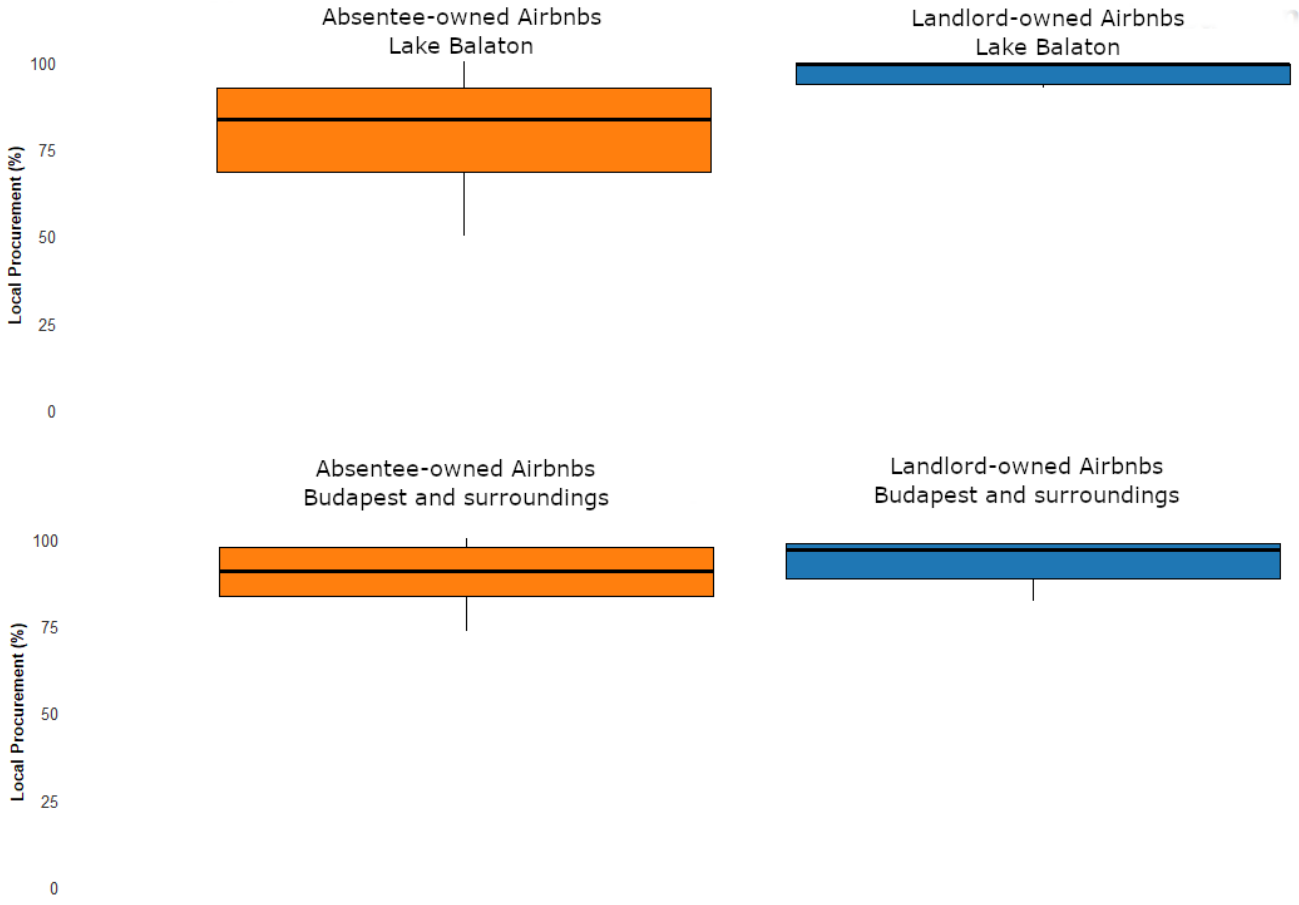
Food and beverage (F&B) supply	**Yes**	**Uncertain**	**No**
Vending machines and water dispensers supply	Yes	Uncertain	No
Consulting supply	Yes	Uncertain	No
Insurance supply	Yes	Uncertain	No
Marketing&Sales service supply	Yes	Uncertain	No
Waste removal service supply	Yes	Uncertain	No
Finance services supply	Yes	Uncertain	No
Laundry service supply	Yes	Uncertain	No
Laundry and linen supply (linens, towels etc.)	Yes	Uncertain	No
Maintenance service supply	Yes	Uncertain	No
Maintenance ware supply (tools, replacement parts, cleaning equipment, and other supplies used for maintenance purposes)	Yes	Uncertain	No
Permanent or disposable ware supply (dishes, utensils, kitchen supplies, buffet ware, pans, sinks, etc.)	Yes	Uncertain	No
Cleaning service supply	Yes	Uncertain	No
Cleaning tools supply (any tools used for cleaning and hygiene purposes)	Yes	Uncertain	No

Please indicate what proportion (%) of the hotel's supply is locally sourced.

- Food and beverage (F&B) supply
- Vending machines and water dispensers supply
- Consulting supply
- Insurance supply
- Marketing&Sales service supply
- Waste removal service supply
- Finance services supply
- Laundry service supply
- Laundry and linen supply (linens, towels etc.)
- Permanent or disposable ware supply (dishes, utensils, kitchen supplies, buffet ware, pans, sinks, etc.)
- Maintenance service supply
- Maintenance ware supply (tools, replacement parts, cleaning equipment, and other supplies used for maintenance purposes)
- Cleaning service supply
- Cleaning tools supply (any tools used for cleaning and hygiene purposes)

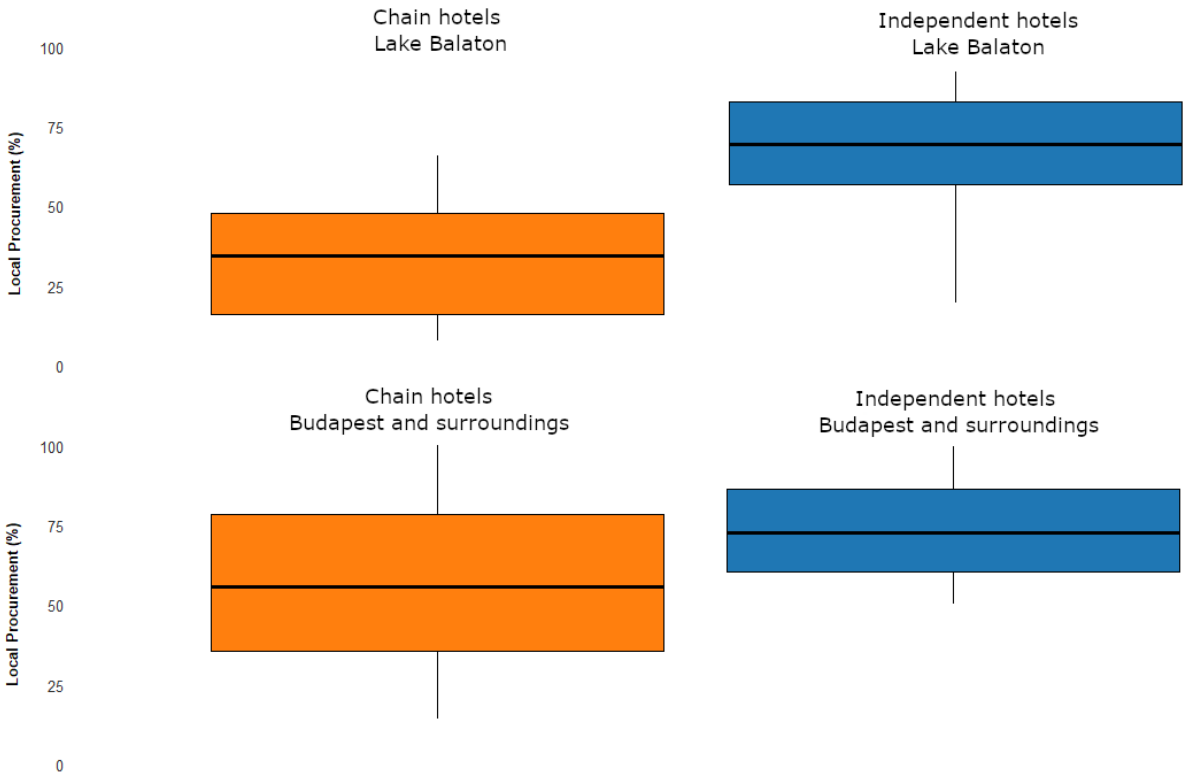
Source: Own edition

Appendix 7. Local procurement levels by Airbnb ownership type and region



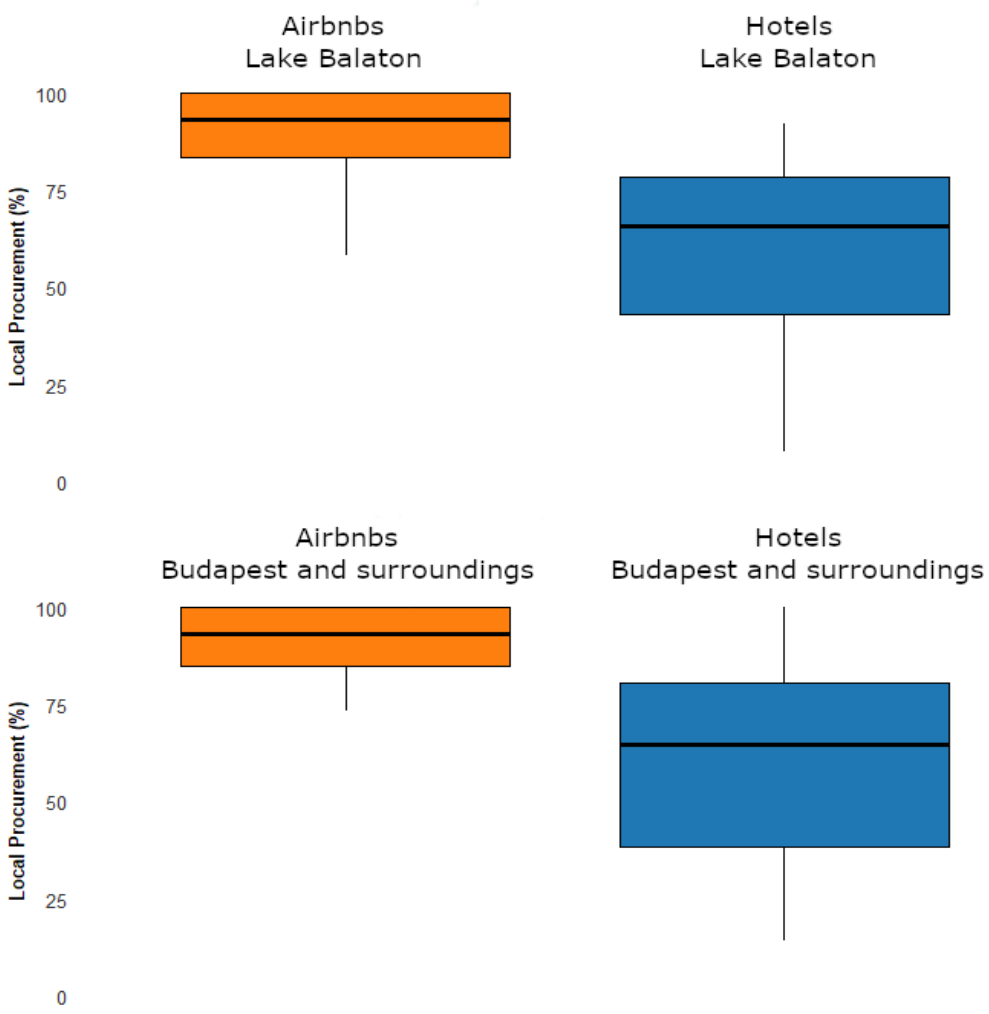
Source: Own edition

Appendix 8. Local procurement levels by hotel ownership type and region



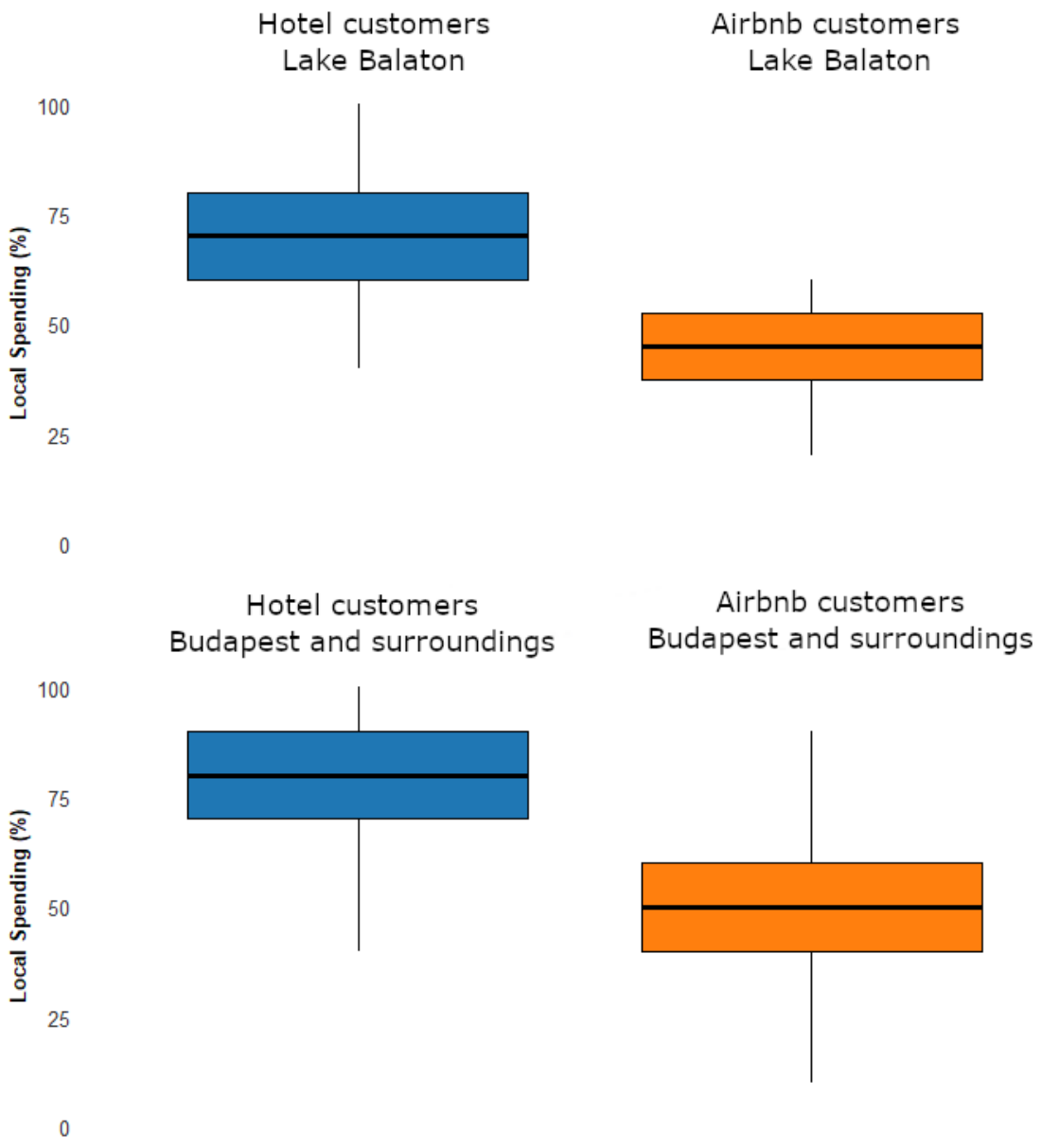
Source: Own edition

Appendix 9. Local procurement levels by accommodation type and region



Source: Own edition

Appendix 10. Local spending levels of tourists by accommodation type and region



Source: Own edition