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## Development of Uttarakhand's homestays through triple helix and innovation workshops

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### Abstract

This study investigates the application of the Triple Helix model, which emphasizes collaboration among government, industry, and universities, to develop the homestay sector in Uttarakhand, India. The research aims to understand how this collaboration promotes innovation and addresses challenges faced by homestay operators, including seasonal fluctuations and limited resources. Using a qualitative, constructivist approach, the study draws on in-depth interviews with key stakeholders: representatives from the Uttarakhand Tourism Development Board, academic leaders from Hemvati Nandan Garhwal University, and local homestay owners. Thematic analysis reveals that sustained collaboration among these stakeholders is crucial for enhancing homestay services and fostering innovation within the sector. However, significant barriers remain, such as traditionalist mindsets, limited innovation awareness, and low engagement in collaborative initiatives. Proposed solutions include adventure-based and eco-friendly homestay models, along with university-led workshops to improve operators' skills in tourism management and cultural integration. This study provides new insights into the application of the Triple Helix model within tourism, particularly homestays, a sector largely neglected in existing research. By examining the dynamics of collaboration in Uttarakhand, this work contributes to understanding sustainable tourism development in rural mountain regions.

**Keywords:** Triple helix model, homestays, government, university, industry, Uttarakhand

### Introduction

Homestays are popular tourism and hospitality enterprises providing accommodation services in many rural destinations (Uyen, 2020) <sup>[35]</sup>. As a type of home-sharing business, homestays are usually family-owned and operated businesses offering hospitality services such as rooms, food, and beverage, and authentic cultural experiences with local hosts (Ibrahim and Razzaq, 2010; Mura, 2015) <sup>[17, 24]</sup>. These businesses are regarded as community-based enterprises, promoting sustainable community development through the involvement of local residents as tourism entrepreneurs (Pasanchay and Schott, 2021) <sup>[27]</sup>. By providing tourism services in their private dwellings, homestay owners can improve their livelihoods, as these businesses become their main or supplementary income sources (Truong *et al.*, 2014) <sup>[34]</sup>. Guests who share spaces with their host families can enjoy access to private dwellings and the learning that arises from being immersed in the local lifestyle (Truong *et al.*, 2014) <sup>[34]</sup>. This is considered a key component and benefit of the homestay guest experience. Instead of experiencing the standardized services of mainstream accommodation, interactions with homestay service providers can offer guests the opportunities to meet and learn from the lifestyles and indigenous knowledge of local residents.

In 1995, Etzkowitz and Leydesdorff developed the evolutionary Triple Helix concept. This model aims to describe the various types and levels of collaboration that occur among the three key actors involved in the innovation process: universities, industry and governments (Etzkowitz & Leydesdorff, 1995) <sup>[7]</sup>. The Triple Helix model refers to the dynamic and collaborative relationship among industry, government and university. Nevertheless, it is important to highlight that the dominant body of literature and real-world implementations have been focused on the industrial and technology industries (Etzkowitz & Leydesdorff, 1998, 2000) <sup>[9]</sup>. Universities, as research institutions, play an essential position in the dissemination of knowledge, serving as catalysts for novel ideas and possible income generation within the sector.

However, it is essential to recognize that the remaining two players, namely industry and government, hold equal significance and possess the ability to generate their own new concepts. These individuals possess the capacity to effectively execute and convert these novel concepts into concrete results (Etzkowitz & Zhou, 2017a)<sup>[11]</sup>.

The relationship between industry, government and university undergoes a significant transformation when the commercialization of academic knowledge surpasses impartiality and the naturally public nature of knowledge. This change is widely attributed to the observed practices in the field of industrial research, the internal entrepreneurial dynamics inside academic institutions, and the regulations implemented by governmental bodies (Etzkowitz, 2003)<sup>[5]</sup>. Universities worldwide have implemented a diverse range of entrepreneurship education programs aimed at fostering students' entrepreneurial mindset, equipping them with practical and theoretical knowledge in developing businesses, stimulating innovative learning approaches, and cultivating an entrepreneurial mindset that can be advantageous in their professional pursuits (Bienkowska and Klofsten, 2012; Meyer, 2003; 2012; Boldureanu *et al.*, 2020).

### Problem Formulation

The main objective of this study is to investigate the Triple Helix relationship in the context of Homestays in Uttarakhand, a state situated in the Himalayan region of India. The Triple Helix model, which emphasizes the interconnectedness of academia, industry, and government in fostering innovation and economic development, holds relevance in understanding the dynamics of the homestay phenomenon within the tourism industry of Uttarakhand. Homestays, a rapidly growing segment of the tourism sector, involve local residents opening their homes to tourists, providing them with an immersive and authentic experience. This concept aligns with the Triple Helix model as it involves multiple stakeholders collaborating to create a unique and enriching experience for travelers.

### Review of Literature

#### Homestays

Homestays are accommodation enterprises in which private homeowners utilize their spare space for business purposes. In other words, homestay operators commercialize residential homes for profit (Kontogeorgopoulos *et al.*, 2015)<sup>[18]</sup>. This definition of a homestay is aligned with the concept of the commercial home enterprise proposed by McIntosh *et al.* (2010)<sup>[22]</sup>, while sharing many of the characteristics of conventional accommodation services. Homestay hosts can offer experiences that enable them to stand out from other accommodation providers by integrating the cultural elements of their homes with products and services (Ngo and Doan, 2014)<sup>[25]</sup>. Homestays are community-embedded tourism and hospitality enterprises, as well. Homestay businesses can generate various socio-economic benefits (Pasanchay and Schott, 2021)<sup>[27]</sup>. Although the literature discusses various types of homestays, they are generally considered a type of home-sharing business (e.g., Lim *et al.*, 2021)<sup>[20]</sup>. Homestays are tourism and hospitality MSMEs providing multiple services, including accommodation, food and beverage, and recreational activities (Truong *et al.*, 2014)<sup>[34]</sup>. Homestay

hosts can offer experiences that enable them to stand out from other accommodation providers by integrating the cultural elements of their homes with products and services (Ngo and Doan, 2014)<sup>[25]</sup>.

#### Triple Helix Model

The Triple Helix model enables the facilitation of innovation by establishing a framework where the combined efforts of three primary players, namely government, industry, universities, give mutual benefits (Page, 2009)<sup>[26]</sup>. In view of the creation of the knowledge-based society and culture, the Triple Helix approach has undergone development in order to examine the knowledge structure present in networks within local, regional and national innovation ecosystems (Etzkowitz, 2002; Etzkowitz & Leydesdorff, 2000)<sup>[4, 10]</sup>. The concept of Triple Helix approach refers to the interdependent relation among three distinct stakeholders namely government, industry, universities occupying various roles within the development of knowledge acquisition (Etzkowitz, 2002)<sup>[4]</sup>. The Triple Helix approach gained prominence in the latter half of the 20th century as a crucial component in several national and multinational innovation strategies, with its foundation in the concept of the regional innovation environment (Setyagung *et al.*, 2013)<sup>[30]</sup>. The TH model places significant importance on regional social development as a result of its defining features, which encompass a robust interplay among three important social systems: government, industry, universities (Cai and Lattu, 2022). The value of these three direct social systems of connection and cooperation, together with their reciprocal advantages, cannot be overstated.

The analysis of social networking as a "neo-intuitive structure" is vital for academics due to the crucial interconnectedness of networks across government, industry, universities (Galvao *et al.*, 2019; Carayannis and Campbell, 2009).

(Etzkowitz & Zhou, 2017a)<sup>[11]</sup> specifies the roles of the various stakeholders, with the university playing the most important role "generative principle of knowledge-based societies", industry as the "locus of production", and government "the source of contractual relations that guarantee stable interactions and exchange". The scenario where governments and universities "act as entrepreneurs" is a prime instance of the role exchange since it shows how this idea goes beyond the limits of conventional businesses. The Triple Helix model comprises three fundamental components: (1) the model highlights the increased importance of universities in the innovation processes, specifically within the framework of this paper, wherein universities engage in collaborations with the tourism sector and government agencies. (2) It facilitates the shift towards enhanced collaborative partnerships among universities, industry, and government, wherein innovation arises from the interaction and synergistic effects among these organizations, rather than being exclusively imposed by the government. (3) Stakeholders within the Triple Helix approach engage in a role-exchange strategy, functioning both horizontally in their original capacities and vertically in their new responsibilities within the innovation ecosystem (Etzkowitz & Leydesdorff, 1997; Etzkowitz & Zhou, 2017a)<sup>[11, 8]</sup>.

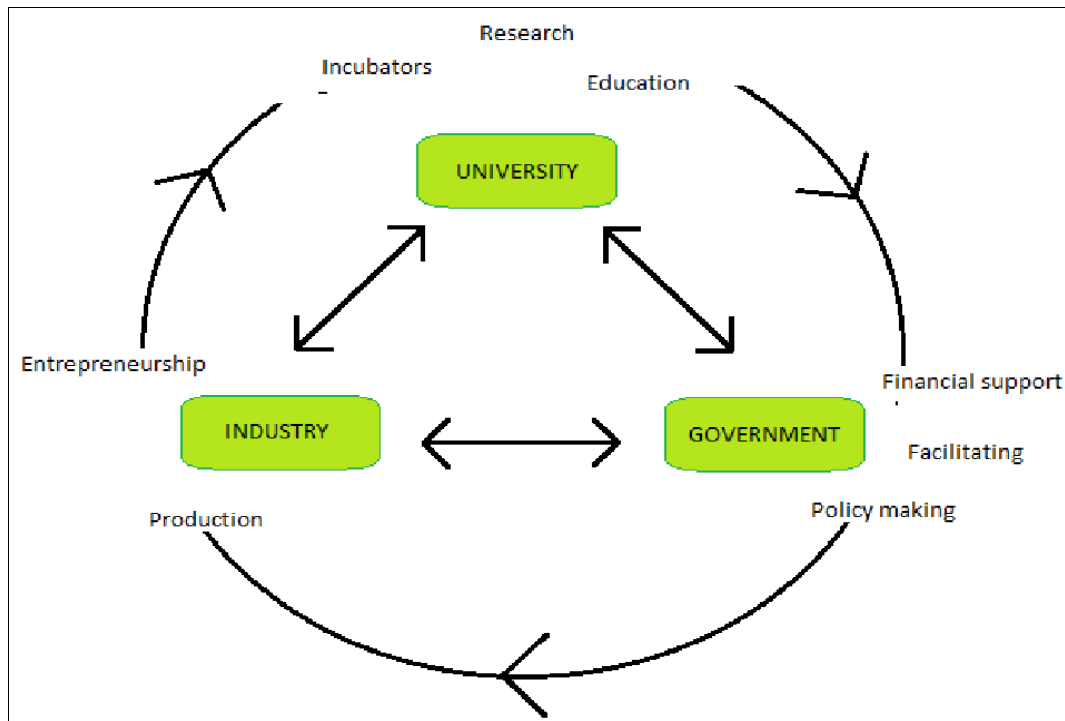


Fig 1: Source: (Etzkowitz, 2008) <sup>[6]</sup>

### Innovation

Throughout history, tourism has shown significant levels of innovation. In the present globalized world, when the tourism sector faces increased competition, innovation plays a crucial role in maintaining a competitive edge for enterprises, destinations, and all other relevant stakeholders (Hjalager, 2010) <sup>[16]</sup>. (Schumpeter & Backhaus, 1934) <sup>[29]</sup> who is widely recognized as a pioneer in the field of innovation theory is credited with formulating the concept of creative destruction, which has subsequently served as a fundamental principle in many innovation theories. The concept of creative destruction refers to the ongoing process of innovation and the subsequent obsolescence of currently available products. (Hjalager, 2002) <sup>[15]</sup> provides additional support for the previous classifications by asserting that innovations can be categorized as either advances of inventions or broad concepts aimed at transforming them into practical products. Based on the definition previously provided, it can be inferred that the presence of knowledge (management) and creativity holds significant significance in the area of innovation and should not be disregarded when discussing innovation within a knowledge-driven society.

The ability of the service sector to serve as a center for innovation has only lately been acknowledged; in the past, manufacturing dominated this industry, as it was seen to be the primary force behind economic progress (Hall & Williams, 2019). According to Poon (1993, as cited in Hall & Williams, 2008), the tourism industry is currently experiencing a state of crisis characterized by significant transformation and uncertainty. This crisis is primarily driven by a variety of issues, including the emergence of new technologies, the increasing sophistication of consumers, and the constraints imposed by environmental factors.

(Hall & Williams, 2019) <sup>[13]</sup> stated that the field of tourism has consistently experienced transformations, with important constants associated with the increase of

activities, numbers of tourists, employment, and economic impact in recent decades. Furthermore, the authors believe that the sector has experienced a substantial transformation in recent years as a result of the emergence of new technology, new markets, and innovative organizational frameworks. The problem related to tourism innovation lies in the unique characteristics of the industry, which is mainly known by the high number of small and medium sized firms (SMSEs), limited educational attainment levels, and substantial personnel turnover resulting from seasonal fluctuations. Moreover, the act of replicating the inventions of competitors is a relatively simple task. Consequently, the levels of trust among small tourism enterprises are reduced. Consequently, the promotion of collaboration between these enterprises requires the involvement of intermediary organizations, such as tourist boards (Cooper, 2006; Hall & Williams, 2019; Hjalager, 2010; Svensson *et al.*, 2005) <sup>[2, 13, 16, 33]</sup>. Public-sector initiatives in the field of tourism frequently entail the establishment of networks aimed at improving collaboration and facilitating information exchange among small enterprises including homestays. The primary objective of such efforts is to bolster.

### Knowledge

According to (Hall & Williams, 2019) <sup>[13]</sup>, knowledge plays a crucial role in the process of innovation, as innovation involves the application of various forms of knowledge. The idea of knowledge management argues that individuals have to engage in the sharing of their ideas and information in order to generate products and services that offer enhanced value. The transition from a material-based economy to a knowledge-based economy in the 20th century led to the emergence of a movement towards the adoption of a knowledge management paradigm (Metsaots, 2016) <sup>[23]</sup>. The strategic value of knowledge and its management is widely acknowledged since it offers organizations a competitive advantage. Previous studies have established that knowledge

sharing (KS) plays a vital role in organizations by facilitating the promotion of best practices, fostering knowledge generation, and improving overall effectiveness (Yiu & Law, 2014) [37]. Tourism has entered the field of knowledge management very recently, despite its established status as an academic discipline. The implementation of knowledge management practices can yield substantial advantages for tourism companies and destinations, particularly in areas of innovation and competition (Cooper, 2015) [3]. The tourism business encounters several obstacles in the area of information exchange and management, resulting in limited utilization of knowledge management practices within the industry. Due to the predominant presence of small and medium-sized firms within the sector, it is frequently seen that these entities exhibit limited capacity or motivation to engage in research activities (Metsaots, 2016) [23]. The institution holds the top position as a result of its increased importance in the domains of technology transfer (TT), company establishment, and regional regeneration within the context of the knowledge society. On contrary, inside an industrialized society, it has the secondary position (Cai and Etkowitz, 2020).

### Methodology

This study follows to the constructivist methodology, which includes a preference for using qualitative research methods (Thompson & Walker, 1998). The process of qualitative research begins by formulating certain assumptions and using interpretive or theoretical frameworks to guide the exploration of research issues related to the subjective interpretations and opinions that people or organisations have to a social or human context (Wainstein *et al.*, 2023). (Hammersley, 2000), (Shaw, 2003) [14, 36, 31] provide a concise overview of the primary benefits associated with qualitative research. One argument suggests that qualitative approaches have the ability to investigate aspects that are beyond the reach of other quantitative methods, especially when examining the connections between steps and results in research. Qualitative research has the potential to improve understanding of important problems. The training in qualitative techniques emphasizes the significance of an

interpretivist epistemology attitude, which believes that knowledge is generated through social processes (McMullin, 2023) [21]. The primary objective of qualitative research is to gain a comprehensive understanding of a social phenomenon by considering many perspectives. In contrast, quantitative research primarily aims to test hypotheses and ascertain the validity of prediction generalizations derived from a theory (Smith *et al.*, 2015) [32].

### Data Collection

As previously stated, this study uses the qualitative approach in order to examine the perspectives and evaluations of the concerned parties. Consequently, qualitative methods are employed to gather data, focusing on capturing subjective insights rather than quantifying the acquired information. There are two distinct categories of data collection techniques, namely primary and secondary. According to (Bjerke & Arbnor, 2009) [1] primary data refers to the process for collecting new information by means such as interviews, and personal observations. These approaches require the researchers' involvement, either in a passive or active manner.

### Interviews

Qualitative research uses interviews as a means of gathering data. Both of in-person and telephone interviews have been found to be reliable methods for qualitative research investigations, with a reasonable margin of error (Rahman, 2023) [28]. Interviews are widely recognized as one of the main methods for collecting primary data which are utilized in this paper. The aim of this study was to conduct interviews with all relevant players involved in the Triple Helix interaction, namely encompassing Hemvati Nandan Garhwal University, Uttarakhand Tourism Development Board, and owners of Homestays. The individuals who participated in the interviews were Prof. Rakesh Dhodi, the Dean of the School of Management at Hemvati Nandan Garhwal University, Pushkar Negi from the Uttarakhand Tourism Development Board, and the owners of various homestay owners.

**Table 1:** Demographic details of Interviewed homestay owners

| S. No. | Gender | Name                 | Years in Business | No. of Rooms | Services they offer  |
|--------|--------|----------------------|-------------------|--------------|----------------------|
| 1      | F      | Beena Devi           | 4                 | 4            | Room rental and food |
| 2      | M      | Ankit Singh          | 5                 | 6            | Room Only            |
| 3      | M      | Hanumat Singh        | 4                 | 6            | Room rental and food |
| 4      | F      | Usha Bartwal         | 3                 | 5            | Room rental and food |
| 5      | M      | Suresh Chandra Joshi | 6                 | 5            | Room rental and food |
| 6      | M      | Ravindra Panwar      | 5                 | 6            | Room Only            |
| 7      | F      | Priyanka             | 2                 | 4            | Room rental and food |
| 8      | M      | Devendra Singh       | 6                 | 6            | Room rental and food |

### Qualitative Content Analysis

Since the data acquired has qualitative attributes, it is considered suitable for using qualitative data analysis techniques. The analysis is performed with a qualitative content analysis approach based on thematic considerations. Qualitative content analysis differs from quantitative content analysis by prioritizing the essence of knowledge rather than its structure or numerical characteristics. Qualitative content analysis provides an in-depth review of both the context and thematic aspects of the data factors,

including an investigation into how themes were represented (Liljeroos *et al.*, 2023) [19].

### Result and Analysis

#### Innovation

All the homestay operator who interviewed stated that "awareness is absent among individuals about the concept of innovation in tourism and homestays".

Prof. Rakesh Dhodi explained that "homestays are more likely to try something from themselves and fail.



Universities, as intellectual institutions, do not directly influence the innovation processes of small business-like homestays and travel agency instead, they typically work through middlemen, such Visit-organizations, NGO to facilitate cooperation and involvement”.

The group interviews conducted with Homestay owners “revealed an agreement about the significance of innovation within the tourism industry. This importance is particularly emphasized due to the common problem of seasonality that numerous homestay operator face. Therefore, there exists a necessity to identify and implement solutions that effectively alleviate the fluctuations in guest numbers throughout different seasons. Continuous redevelopment is necessary to enhance the appeal of organizations and attract tourists”.

Both homestay owners and Prof. Rakesh Dhodi believe in the fact that “many homestays operator fail to acknowledge the significance of innovation in the tourism industry. Moreover, these homestays often lack innovativeness and prioritize maintaining their current lifestyle”.

The lack of curiosity in innovation may be “because only few Homestay owners are aware of what innovation is as well as how to use it. They claim that it is crucial to teach them since it provides them with a diverse range of skills. The problem with teaching innovation, as they point out, is that most homestays have just two or three employees, so if they participate in the workshops, homestays would have to shut down for a couple of days, which would result in a loss of earnings”. [1, 3, 5]

Even if the events are helpful to them, “the three-homestay owner stated that above mentioned difficulties make them less interested in participating, showing that small businesses primarily consider what will benefit them immediately”. [2, 4, 7.]

Majority of homestay owners are “fairly traditional and don't favor change. The risk associated with innovation is another reason that frequently limits homestays owners because failure could be quite costly for them”.

Prof. Rakesh Dhodi has proposed several innovative ideas and strategies to help homestay operators attract more tourists. These ideas can significantly enhance the appeal and success of homestay businesses.

- **Adventure-Based Homestays:** Uttarakhand is a hub for adventure activities like trekking, mountaineering, and river rafting. Homestay hosts can collaborate with adventure tour operators to offer packages that include accommodation along with guided adventure experiences.
- **Eco-friendly Himalayan Retreats:** Given Uttarakhand's proximity to the Himalayas, hosts can create eco-friendly retreats that emphasize sustainability and promote responsible tourism. This might involve practices like rainwater harvesting, solar power, and organic farming.
- **Yoga and Wellness Retreats:** Uttarakhand is renowned for its yoga and wellness centers. Homestay hosts can partner with certified yoga instructors and wellness experts to provide guests with tailored wellness experiences, including daily yoga sessions and meditation retreats.
- **Cultural Immersion:** Uttarakhand has a rich cultural heritage. Homestay hosts can organize cultural immersion experiences such as folk-dance

performances, traditional cooking classes, and visits to local temples and monasteries.

- **Ayurvedic Homestays:** Ayurveda, the traditional Indian system of medicine, is popular in Uttarakhand. Homestay hosts can offer Ayurvedic treatments, spa therapies, and herbal remedies to promote health and relaxation.
- **Camping Experiences:** In addition to traditional homestay accommodations, hosts can set up luxury tents or glamping sites in scenic locations like the Himalayan foothills or near pristine rivers, providing guests with a unique camping experience.
- **Agricultural Tourism:** Guests can engage in farming activities like plowing, sowing, and harvesting with local farmers. They can also learn about organic farming practices and enjoy farm-to-table meals.
- **Artisanal Workshops:** Encourage local artisans to conduct workshops in traditional crafts such as woodcarving, rug making, and pottery. Guests can create their own souvenirs and learn about the region's cultural heritage.
- **Stargazing and Astronomy Tours:** Uttarakhand's clear skies make it an ideal destination for stargazing. Homestay hosts can collaborate with universities and government to offer guided stargazing experiences with telescopes and astronomy lectures.
- **Culinary Experiences:** Uttarakhand has a unique cuisine. Hosts can offer cooking classes where guests can learn to prepare regional dishes using local ingredients.
- **Storytelling and Folklore Nights:** Organize storytelling sessions where local residents share traditional stories, myths, and legends with guests, creating a sense of cultural connection.

### Collaboration

Similar to the concept of innovation, the majority of interviews emphasize the significance of engaging in collaborative efforts with various stakeholders within the tourism sector, including homestay owners, universities, and governments. The partnership between homestay owners and government institutions is simple to recognize and easily understood. However, the nature of collaboration with universities can be rather confusing, particularly for homestay owners. There exists a considerable amount of confusion among respondents regarding the precise nature of universities' involvement in the Triple Helix paradigm.

Prof. Rakesh Dhodi stated that the “Triple Helix is seen by practitioners as the collaborative interaction among the three key stakeholders. This cooperation is the initial stage of the Triple Helix model, as previously described by Etzkowitz (2008) [6] in the present study”.

Prof. Rakesh Dhodi argues that “this particular model holds significance within the tourism industry, particularly due to its significance of fostering collaboration among stakeholders and providing mutual support in areas where others may lack proficiency. He further added that Collaboration holds significant importance in the context described since it has the potential to foster innovation and hence enhance the sustainability of a given location”.

Prof. Rakesh Dhodi said that Government organizations and homestays within the tourism industry have only recently begun to acknowledge the potential for collaboration with

universities. However, the involvement of universities in these partnerships remains significantly limited”.

The interviewed homestay owners from all the homestay “emphasised the significance of collaboration. They actively look for opportunities to work with other homestay owners in the area. Furthermore, they recognise the value of universities and the expertise possessed by their students, which is typically more up-to-date than their own”.

According to Pushkar Negi, a representative from the Uttarakhand Tourism Development Board, “there is an increasing number of businesses engaging in collaborations with universities and other homestays, resulting in significant benefits for everyone involved. Collaboration fosters information sharing and innovation, thereby benefiting not just businesses but also the entire destination through increased tourist inflow. He further added that the positive outcomes of collaboration extend beyond individual enterprises. It is important for small enterprises like homestays to recognize that while immediate gains may not be obvious, engaging in collaborative efforts can yield long-term benefits, therefore necessitating a shift in their perspective towards prioritizing such endeavors”.

All the owners of homestays interviewed in this study states that the “prevalence of seasonality in the region where the homestays operate requires collaborative efforts with other homestays to address this concern and collectively enhance tourist attraction.

Majority of homestays owners “focuses greater emphasis on the marketing dimension of the region rather than solely concentrating on pilgrimage and religious tourism”. [1, 2, 4, 6, 7, 8]

### Knowledge Sharing

Prof. Rakesh Dhodi stated that the concept of Triple Helix is centered on the capacity to exchange knowledge. One challenging aspect is the linguistic diversity among players, as universities primarily use a theoretical language while homestays operators and tourism industry in Uttarakhand typically prefer a more practical language.

All the Homestays owners stated that “it is essential for homestay owners to engage in knowledge sharing to foster networking opportunities”.

All Homestays owners agreed that “they often lack such resources and consequently place greater importance on knowledge sharing as a way of acquiring valuable insights and expertise”.

### Workshops

Prof. Rakesh Dhodi stated that “innovation workshops offer a valuable venue for the exchange of knowledge and encouraging engagement in the tourism industry. These workshops facilitate collaboration between various stakeholders, including tourism industry and universities thereby promoting the spread and acquisition of innovative ideas.

All the owner of homestays stated that “conducting workshops with homestay owners can be challenging because they often don't have many employees”.

Majority of homestays owners interviewed in this study affirms that “innovation workshops can be helpful, but it is not usually simple to get homestays owners to participate. They added that, like collaboration, not all homestays recognize their gains and potential advantages”. [1, 3, 4, 5, 7, 8]

Owners of the majority of homestays stated that “these workshops can further improve the inter-business collaboration within the destination, promoting a wider perspective”. [1, 2, 4, 6, 7, 8]

### Findings

The study underscores the essential role of collaboration within the tourism sector, specifically through the Triple Helix framework, which integrates universities, industries, and government agencies to enhance innovation and competitiveness in local and regional tourism markets, particularly within Uttarakhand. It highlights that while a limited number of homestay operators recognize the potential benefits of working with universities and industry players, there remains a general hesitancy due to factors such as limited engagement, knowledge obsolescence, and a need for practical application over purely academic insights. The findings suggest that while homestay owners and other SMEs in the tourism sector acknowledge the importance of knowledge exchange, they often struggle to implement it effectively due to barriers like language differences, trust issues, and traditionalist attitudes.

For sustainable growth, it is essential for government agencies to facilitate these collaborations by bridging the communication gap between academic institutions and industry practitioners. Additionally, universities must strive to produce more actionable, practical knowledge that tourism businesses can readily apply. Innovation workshops and public sector-led initiatives are identified as effective strategies for fostering these connections, empowering small businesses to innovate and contribute to a more competitive regional tourism economy. However, the study also reveals that a lack of awareness and action among SMEs can hinder progress. To overcome this, a paradigm shift toward openness and trust in knowledge-sharing is necessary, addressing cultural resistance and fostering a more collaborative environment for long-term growth and sustainability in the tourism industry.

### Discussion

The primary objective of the Triple Helix concept is to examine the knowledge infrastructure present within a network of local, regional, and national innovation systems. (Etzkowitz, 2002; Etzkowitz & Leydesdorff, 1997) [4, 8]. The significance of collaboration and interaction has witnessed a significant increase within the tourism sector. Consequently, there has been a shift towards fostering greater cooperation among the three major players in the Triple Helix framework, often leading to the development of innovative practices. (Etzkowitz & Zhou, 2017b) [12]. The study reveals that all the respondents who have taken part in this study recognized the significance of collaboration, as it results in an increasingly competitive destination. Prof. Rakesh Dhodi states that a limited number of homestays owners have recognized the benefits of collaborating with tourism industry and universities, and there is a certain level of uncertainty regarding the precise nature of their involvement. Previously, universities have exhibited limited engagement in collaborative efforts with businesses. The significance of knowledge is also seen in the results, as all participants interviewed for this study agreed that organizations frequently exhibit obsolescence and need current external information. It is also acknowledged by the homestay owners involved that universities frequently

contain the latest expertise in concern. Consequently, collaboration between universities and homestays in the tourism industry is seen as necessary, whether it via various initiatives and workshops.

In the study, it was observed that all interview participants emphasized the necessity for change, as conventional methods have been considered insufficient in the promotion of their homestays. Consequently, individuals require enhanced skills in interaction, collaboration, technological proficiency, and knowledge administration. As explained in the analysis, the establishment of university-industry relations has the potential to increase competitiveness and promote innovation within the tourism sector in Uttarakhand. This is primarily achieved through the facilitation of information exchange, which is often facilitated by innovation and workshops. However, it is essential to acknowledge certain factors that need attention in the context of university-industry collaboration. One such factor relates to the language barrier, wherein the information communicated by universities is frequently of an academic nature. This may create a challenge for many tourism companies including homestays, as they often prioritize practical knowledge over the comparatively significant and less immediately useful academic material. This suggests that government organizations should be responsible for facilitating collaborations involving universities, as they have the expertise to effectively communicate academic knowledge to tourism industry and homestay operators. Simultaneously, universities must also generate practical outcomes for businesses to successfully implement them (Hjalager, 2010) <sup>[16]</sup>. This would result in improved innovation and collaboration since enterprises would acquire a greater degree of practical expertise that can be effectively used. Considering the dynamic nature of the tourism business, the inclusion of innovative practices is essential for the overall functioning of the tourism system (Hall & Williams, 2019) <sup>[13]</sup>. Continuous progress is vital, and this can be achieved through the facilitation of knowledge transfer and collaborative efforts, as elaborated upon in the study. Public sector efforts frequently enhance collaboration among small and medium-sized enterprises (SMEs) like homestays, as shown by innovation workshops that effectively show the advantages of collaborative efforts. Consequently, such collaborative efforts have the potential to strengthen regional innovation (Hjalager, 2010) <sup>[16]</sup>. However, a significant number of homestays operating within the tourism sector do not understand the significance of the knowledge they receive from various stakeholders, as well as the advantages of actively disseminating their own knowledge. Unfortunately, this lack of awareness and action will hinder the progress of innovation within the homestay and tourism industry. In summary, the difficulties regarding collaboration and innovation within tourism are due to a variety of factors, particularly those associated with small and medium size enterprises (SMEs) like homestays that have significant influence over the sector. The obstacle to innovation frequently comes from individuals' limited attitude for collaboration and knowledge exchange, despite recognizing its indispensability. There are two primary factors that may account for this phenomenon: firstly, the prevalence of trust issues among many organizations, and secondly, the extensive conservative culture that predominates in Uttarakhand.

## References

1. Bjerke B, Arbnor I. *Methodology for creating business knowledge*. Sage Publications; c2009.
2. Cooper C. Knowledge management and tourism. *Annals of Tourism Research*. 2006;33(1):47-64.
3. Cooper C. Managing tourism knowledge. *Tourism Recreation Research*. 2015;40(1):107-19.
4. Etzkowitz H. The triple helix of university-industry-government: Implications for policy and evaluation. *Swedish Institute for Studies in Education and Research*; c2002.
5. Etzkowitz H. Innovation in innovation: The triple helix of university-industry-government relations. *Social Science Information*. 2003;42(3):293-337.
6. Etzkowitz H. *The Triple Helix: university-industry-government innovation*. 1st ed. New York: Routledge; c2008.
7. Etzkowitz H, Leydesdorff L. The Triple Helix-University-industry-government relations: A laboratory for knowledge-based economic development. *EASST Review*. 1995;14(1):14-9.
8. Etzkowitz H, Leydesdorff L. Universities and the global knowledge economy: A triple helix of university-industry relations. Preprint Version. London: Pinter; c1997.
9. Etzkowitz H, Leydesdorff L. The endless transition: A "triple helix" of university-industry-government relations. *Minerva*. 1998;203-8.
10. Etzkowitz H, Leydesdorff L. The dynamics of innovation: From National Systems and "Mode 2" to a Triple Helix of university-industry-government relations. *Research Policy*. 2000;29(2):109-23.
11. Etzkowitz H, Zhou C. *The triple helix: University-industry-government innovation and entrepreneurship*. Routledge; c2017a.
12. Etzkowitz H, Zhou C. *The triple helix: University-industry-government innovation and entrepreneurship*. Routledge; c2017b.
13. Hall CM, Williams AM. *Tourism and innovation*. Routledge; c2019.
14. Hammersley M. The relevance of qualitative research. *Oxford Review of Education*. 2000;26(3-4):393-405.
15. Hjalager A-M. Repairing innovation defectiveness in tourism. *Tourism Management*. 2002;23(5):465-74.
16. Hjalager A-M. A review of innovation research in tourism. *Tourism Management*. 2010;31(1):1-12.
17. Ibrahim Y, Razzaq ARA. Homestay program and rural community development in Malaysia. *J Ritsumeikan Soc Sci Humanit*. 2010;2(1):7-24.
18. Kontogeorgopoulos N, Churyen A, Duangsaeng V. Homestay tourism and the commercialization of the rural home in Thailand. *Asia Pac J Tour Res*. 2015;20(1):29-50.
19. Liljeroos T, Humphries S, Puthooppambal SJ, Norlund F, Olsson EM. Management of emotional distress following a myocardial infarction: A qualitative content analysis. *Cogn Behav Ther*. 2023;52(1):47-64.
20. Lim WM, Yap SF, Makkar M. Home sharing in marketing and tourism at a tipping point: what do we know, how do we know, and where should we be heading? *J Bus Res*. 2021;122:534-66.
21. McMullin C. Transcription and qualitative methods: Implications for third sector research. *VOLUNTAS Int J Volunt Nonprofit Organ*. 2023;34(1):140-53.

22. McIntosh AJ, Lynch P, Sweeney M. "My home is my castle": defiance of the commercial homestay host in tourism. *J Travel Res.* 2010;50(5):509-19.
23. Metsaots M. *Triple Helix and Innovation Workshops in the Tourism Industry.* Aalborg: Aalborg University; c2016.
24. Mura P. Perceptions of authenticity in a Malaysian homestay-A narrative analysis. *Tourism Management.* 2015;51:225-33.
25. Ngo TM, Doan T. Market access and the sustainability of community-based tourism enterprises: Case study in Droong village, Dong Giang district, Quang Nam province, Vietnam [Paper presentation]. International Conference on Sustainable Development and Ethnic Minority Poverty Reduction in Mountainous Regions; 2014 Jun 11-13; Thai Nguyen, Vietnam. Available from:<http://en.tnu.edu.vn/Uploads/Articles/Files/372/Eng.Proceedings.pdf#page=103>.
26. Page SJ. *Tourism Management-Managing for Change.* 3rd ed. Butterworth-Heinemann; c2009.
27. Pasanchay K, Schott C. Community-based tourism homestays' capacity to advance the sustainable development goals: A holistic sustainable livelihood perspective. *Tourism Management Perspectives.* 2021;37:100784.
28. Rahman RBA. Comparison of telephone and in-person interviews for data collection in qualitative human research; c2023.
29. Schumpeter J, Backhaus U. The theory of economic development. In: Joseph Alois Schumpeter: *Entrepreneurship, Style and Vision.* Springer; 1934. p. 61-116.
30. Setyagung E, Hani U, Azzadina I, Sianipar C, Ishii T. Preserving cultural heritage: The harmony between art idealism, commercialization, and triple-helix collaboration. *Am J Tour Manag.* 2013;2(1):22-8.
31. Shaw I. Qualitative research and outcomes in health, social work and education. *Qual Res.* 2003;3(1):57-77.
32. Smith GA, Tryon HD, Snyder LB. Developing an academic library assessment plan: A case study. *Perform Meas Metrics.* 2015;16(1):48-61.
33. Svensson B, Nordin S, Flagestad A. A governance perspective on destination development-exploring partnerships, clusters and innovation systems. *Tourism Review;* c2005.
34. Truong VD, Hall CM, Garry T. Tourism and poverty alleviation: perceptions and experiences of poor people in Sapa, Vietnam. *J Sustain Tour.* 2014;22(7):1071-89.
35. Uyen P. Homestay - thay đổi sao để tồn tại? [Homestay - Adaption to survive]. Available from: <http://tapchitaichinh.vn/thi-truong-tai-chinh/homestay-thay-doisao-de-ton-tai-327510.html>; c2020.
36. Wainstein T, Elliott AM, Austin JC. Considerations for the use of qualitative methodologies in genetic counseling research. *J Genet Couns.* 2023;32(2):300-14.
37. Yiu M, Law R. Review and application of knowledge management and knowledge sharing in tourism. *Asia Pac J Tour Res.* 2014;19(7):737-59.