

Bridging the Digital Divide in Tourism Education: Infrastructural Realities and Academic Perspectives in Indian Government Universities

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Abstract:

- **Purpose:** To evaluate the current state of tourism education in Indian government universities by assessing the adequacy of departmental infrastructure and analyzing the perceptions of tourism academicians.
- **Design/Methodology/Approach:** An exploratory quantitative approach was employed, surveying 129 tourism academicians across Indian public universities. Primary data concerning institutional affiliation, teaching experience, course nature, and 11 key infrastructural parameters were collected via a structured questionnaire and analyzed using descriptive statistics.
- **Findings:** The results reveal that while foundational infrastructure (e.g., computer labs and departmental libraries) is reasonably established (over 71%), there is a critical deficit in specialized digital infrastructure. Notably, access to tourism software (34.12%) and dedicated student support cells (15.5%) remains inadequate. Additionally, most programs offer generalized curricula, and the majority of faculty possess less than five years of teaching experience.
- **Practical Implications:** To bridge the gap between academic output and industry demands, higher education institutions must urgently upgrade their digital capabilities, integrate specialized tourism software training into the curriculum, and foster targeted student support mechanisms.
- **Originality/Value:** This study provides a foundational empirical assessment of infrastructural bottlenecks in Indian public tourism education, offering actionable insights for educational administrators and policymakers to enhance the global competitiveness of India's tourism workforce.

Keywords: Tourism Education, Digital Infrastructure, Higher Education, Human Resource Development, Educational Infrastructure, Indian Tourism.

1. Introduction

All nations in the world have experienced the growth of tourism, which creates jobs, foreign exchange profits, and revenue. The World Travel and Tourism Council (2016) states that tourism has only shown itself to be "a force for good," i.e., a means of advancing women's empowerment, community development, environmental conservation, and product development, as well as "a solution where other industries have failed." As a result, tourism has spread to every nation, and as a result, even the most isolated and vulnerable regions of the world are benefiting from economic development. The career paths in the tourist business can be specifically categorised into five areas: lodging, food and beverage services, entertainment and recreation, transportation and travel (British Columbia Jobs, 2015). Eight percent of all jobs worldwide are directly or indirectly employed in the human resource-intensive travel and tourism sector (UNWTO & UNEP, 2012). In order to reach this lofty objective of 5 trillion economics by 2025, the Indian government has set tourism as a "champion" industry (Economic times, 2019). Urry (2000) asserts that tourism plays a major role in society and is an essential aspect of modern life. An extremely profitable sector of many countries' economies is tourism. Yet, the academic community does not acknowledge the significance of tourism. Globalisation is also affecting the character of tourism. The travel and tourism sector grew by 3.9% in 2018, according to the World Travel and Tourism Council (WTTC, 2019). Globally, this business created 319 million jobs and brought in USD 8.8 trillion. This was higher than the global GDP growth rate for the ninth year in a row. According to WTTC (2019), travel and tourism is expected to generate 100 million new employments globally over the next ten years, or 421 million jobs by 2029. Currently, it accounts for one in five of all new jobs produced worldwide. In 2019, the growth rate of the Indian travel and tourism industry was 3.5 percent, while the global economy grew by 2.5 percent. According to Statista (2020) in 2019, 27.5 million people got direct employment in India's travel and tourism industry.

Education urgently needs to change in the context of current globalisation. Delineating tourist education for global change requires an understanding of and engagement with complex globalisation and altered education. Globalisation is complex, and Suarez-Orozco and Qin-Hilliard (2004) noted that it "will continue to be a powerful vector of worldwide change. "We need to know more about how globalisation will affect education and how it will influence and control the direction of globalisation. The various facets of globalization—economic, demographic, social, and cultural—need a deeper theoretical grasp. More communication between academics, professionals, and decision-makers is required (p. 25)". Academicians who were rebelliously inclined took the first move towards the formation of tourism knowledge in the Western world. According to Cooper and Shepherd (1994), tourism education is a combination of several academic disciplines, not a single academic field (Jafari & Ritchie, 1981). Business Management Departments at several Indian Universities have embraced tourism education in an effort to diversify the department's growth through bachelor's and master's degree programmes (George, 2017). The establishment of a Post Graduate Diploma in tourist in the 1970s was a significant milestone in the history of tourist education in India. In 1972, the University of Delhi's College of Vocational Studies (CVS) launched it (Singh and Singh, 2006). Subsequently, in 1976, Hemvati Nandan Bahuguna University (HNBGU), Uttarakhand, launched its tourism education programmes by providing a Post Graduate

Diploma in Tourism and Pilgrimage Studies under the Department of Tourism (HNBGU, 2013). There is no doubt that the stages of the tourist education life cycle differ from nation to nation and around the world (Ladkin, 2014). These phases range in popularity and degree of discipline from the "introductory stage" to the "declined stage." While tourism education in India is in the "introductory stage," it is in decline or stagnant in the United States, the United Kingdom, and Australia (George, 2017). It follows that there is room for growth in Indian higher education related to tourism. Therefore, the purpose of the study was to find out what academics thought about Indian tourism education in postsecondary institutions. Finding the government-run universities and examining the state of tourism education in the nation were the study's two main goals.

1.1 Status of tourism education in India in government universities

As the tourism industry is growing, at the same time, there is an intense competition amongst international and domestic destinations. Quality of services is one of the reasons to magnetise the destination to attract the tourist and it is furnished through educational and professional exposure. There are 28 central universities providing tourism education. 14 Central Universities have introduced PhD programs in tourism. The college of vocational studies started Diploma programme in 1972 and followed by HNBGU. The HNBGU started tourism education with Post Graduate Diploma in Tourism and Pilgrimage Studies in 1976 (When it was state university). The Universities like, IGNOU have more than 20,000 students enrolled in both tourism and hospitality programmes. The department of tourism at JMI University has most diversified tourism education programs. The Pondicherry University can be considered as most innovative in the context of student exchange programme. In addition, there are 58 state universities which are providing tourism education through Certificate, Diploma, Bachelor, Master, MPhil and PhD course.

2. Literature Review

2.1 Human resource and tourism industry

Amoah and Baum (1997) have investigated human resource is the foundation of tourism industry. Peacock & Ladkin, (2002), asserted that "At the macro level, the improvement of the human resource will result into a national gain, and at the micro-level businesses and enterprises will benefit from a better-trained workforce and knowledge transferal. The students themselves will also be better prepared to face future challenges if educators and industry leaders work together" (p. 394). This implies that there is a need to integrate tourism education policy with national tourism development policy. McDonald & Hopkin (2003) have advocated that specialised education leads to the quality of the human resource is concerned industry. Stevenson (2004) advocated the integration of theory and practices of tourism education the researcher added: "Seminars can provide learning opportunities to explore, experience and engage with subject material and to make connections between theory and practice" (p.107). It can play a role to enhance critical thinking and application of knowledge. Manpower with digital skills is also needed in the era of digitalisation (Buhalis & Law 2008). Sheldon et al (2011) have mentioned that TFFI has advocated adopting value-based tourism education comprises of ethics, professionalism, mutuality, stewardship and knowledge. The outcome of these basics values for tourism programs across the world to be a responsible representative-cum-leader of tourism and travel system. Ethics leads to transparent decision making,

knowledge gained by creativity, professionalism, incorporating problems solving temperament, stewardship quality to serve the host community and responsibilities of the stakeholders and mutuality towards lifelong learning. The growth in tourism industry impressively leads to the demand of efficient manpower (Dahiya, 2013). Hence, it is clear that there is a need to develop multi-dimensions among tourism graduates with regards to values and skills.

Indian tourism industry has potential to grow but there is lack of qualified human resources at operational and managerial level (Dhanoa, 2014). Vijayaraghvan (2014), for the sustainability of tourism industry trained manpower is required at managerial, supervisory, and skilled or semi-skilled based operation. There is dearth of human resource at mid and senior management levels of the organizations. Further, this gap is raised because of lack of tourism training infrastructure, educator as well as lifelong strategies and policies (p.2836). Ghatage & Kumbhar (2015) proposed the central and state governments should provide qualified personnel and training for human resource working in tourism industry. As per the information from the Ministry of Skill Development and Entrepreneurship (2018); hospitality and tourism sector were considered as priority sector in 2014-2015 to provide the skilled manpower to industry. Internationally competitive and skilled manpower can shine India as a tourism leader. Tourism and Hospitality Skill Council (THSC, 2018) has a target to skill 3.3 million manpower by 2022. It can be inferred from the above analysed literature that development and growth of tourism industry depend upon the skilled human resources.

2.2 Tourism Education and Professionalism

Professionalism has multifaceted dimensions i.e. growth of individual as well as organisation, lifelong learning, innovation, and development of nation above all. As per the opinions of Hill et al (2013), the professionalism can be incorporated through education, training and motivation of aspiring professionals. Continuous learning ability is a major facet of professionalism. The professionalism behaviour is heavily influenced by changes in the political, cultural and economic context in which professionals work. Also, economic loss to the local community is walking parallel with tourism growth, but it can be minimised through professional training among the locals. The fact is supported by the Oppermann (1993) who has revealed that “the import propensity or leakage factor depends mostly on the country’s economic structure for example, the level of technology, production of agricultural products, and education level of the local population” (p.549). Further, Singh (2001), has defined Tourism Education not a source to produce managers but effective entrepreneurs, specialists, interpreters and responsible citizens can be produced. Tan & Morgan (2001) “Partnerships between educators and industry professionals can facilitate students’ tourism career opportunities” (p.59). Moreover Stevenson (2004) speaks, seminars can be designed to inculcate leadership and presentation skills among the students and as a bridge between academia and industry. Wickens & Forbes (2004), there is need to redefine the relationship, role, nature of relation between student and tutor. Gupta (2008) opined strongly, gap between Tourism Education and industry needs, leads to direct and indirect generation of poor quality of human resources, adverse impact on the economy and decline of tourism industry itself. The researcher mentioned, these three major consequences will emerge if gap analysis is not studied, and relevant actions are not taken to bridge this gap. Above-mentioned literature identified the consequences which arise due to the gap between tourism education

and industry needs but not mentioned the context of analysis of gap and those actions which are relevant to fulfil the gap between tourism education and industry needs. It can be inferred that there is communication gap between academia and industry which results into supply-demand mismatch. There is urgent need of communication between academia and industry. It will make a paradigm shift in while quality education can be an output towards professionalism. Technological innovation has changed the work culture of tourism business organisations, marketing strategy, product development, destinations, and consumer centric technologies (Buhalis & Law 2008). In the context of transitional economics, education, networking, professional associations, international exposure, and the development of a tourism professional identity are the fundamentals of professionalism in tourism industry (Hussey, Holden & Lynch, 2011). Educator's responsibility is to lead the way more effectively, linkages and research will need to be established with special disciplines and professional practice careers at the academic and industry level. Moreover, Bagri & Babu (2011) Indian tourism education has not optimum share in tourism benefits as well as less professional compared to other continents.

2.3 Problems in Tourism Education

It was mentioned in the above discussion that rich literature is an important tool for professionalism. Also, educator must be aware of needs of industry (Peacock & Ladkin, 2002). In addition, Tribe (2002) argued "indeed how does tourism higher education match up to other degree programmes? The lack of evaluative and prescriptive literature in this area is of prime concern" (p.73). It asserts that lack to 'tourism studies'-based literature is a key problem in tourism education. Moreover, subject has 'humble origin', as the pioneer publication came into light the importance of subject sparked across the variety of education institution. It can be concluded that pioneer publication is very important for the publicity of subject. McKercher (2002), described Australian tourism education is facing problem i.e., stratification of tourism programmes over prestige of institution. Moreover, academia has less industry experience and industry practitioner have less chances to practice as academia because of qualification. There are, Peacock & Ladkin (2002) have asserted the problems responsible for non-interface of education. -industry. It was explored by Shepherd and Cooper (1994), four main areas of interaction such as the need to identify industry requirements, work placement schemes, curriculum planning issues, and ways in which tourism educators can update their industry knowledge. The industry and academia interact in different ways. Botterill (1996) identifies six main areas: student placements, staff exchange and collaboration, industry advisory panels, graduate recruitment, research and consultancy, and student projects. Haywood and Maki (1992) identify a conceptual model of the education–employment interface for the tourism industry, based on the expectations and perceptions of several stakeholders. There are different hurdles to have interaction among both. First, the industry tends to regard training and education as an alien concept (Messenger, 1991), whereby training is not seen as an important contributor to competitiveness and profitability. Second, few hurdles to entry mean that specialist qualifications are not a requirement (DfEE, 2000), and a career in tourism is often seen as a low status career (Shepherd and Cooper, 1994). It is also found that managers in the tourism industry who have often not had a higher education themselves tend not to value educational background (Ritchie, 1990; Shepherd and Cooper, 1994). At last, there are problems in the attitudes of tourism academicians in terms of striking a balance between industry and academic

requirements (Baum, 1998; Cooper, Scales and Westlake, 1992). Hannam et al. (2004) surveyed MSc program (Tourism) at University of Sunderland and found that professional skills and information technology skills need to be improved. Moreover, career guidance is own responsibility as well as the course team.

2.4 Departmental infrastructure and tourism education

According to Silver and Brennan (1988), the vocational curriculum in tourism education creates employment in the tourism industry but it does not provide 'thinking and reflection'. Tribe (2005) has advocated tourism is a phenomenon of activities and events of human mind acceptance. It has attracted academicians towards knowledge creation and called it a 'study of tourism'. The facilities within a tourism education department play a crucial role in shaping the learning experiences of students and preparing them for careers in the dynamic field of tourism. A comprehensive literature review reveals the significance of well-equipped facilities in enhancing the quality of education and practical training in tourism programs. Firstly, modern classrooms and lecture halls equipped with state-of-the-art audio-visual technology contribute to a more engaging and effective learning environment. Studies (Smith et al., 2018) have emphasized the positive impact of interactive and multimedia tools on student comprehension and retention of tourism-related concepts. Therefore, institutions that invest in advanced classroom facilities are better positioned to deliver impactful and up-to-date content to their students. Furthermore, researchers also highlights the importance of specialized laboratories in tourism education. Facilities such as tourism simulation labs and travel agency setups provide students with hands-on experience, allowing them to apply theoretical knowledge in practical scenarios. These experiential learning opportunities are essential for developing the skills and competencies required in the tourism industry. Libraries within tourism education departments also play a crucial role, offering access to a wealth of resources including books, journals, and electronic databases.

Also, Library is the heart of an institution. It was found that a considerable percentage of respondents' institutes are not providing 'tourism world information environment'. A well-equipped library facilitates research and promotes a culture of continuous learning among students. Field trips and internships are integral components of tourism education, and facilities that facilitate these experiences contribute significantly to a student's understanding of the industry. Adequate transportation, accommodation, and coordination are essential elements for successful field trips, as outlined in studies by Chen et al. (2014). The students' cell is established with the objectives to motivate students towards academic excellence, extracurricular & co-curricular activities participation, psychological support and guest lecturer (Bharti Vidyapeeth, 20219). While, Indian Institute of Management, Kashipur (2019), established such cell to conduct mock interview, group discussion (maximize performance, opinion presentation in group environment, Dos and Don'ts), Preparatory Session (Industry, Market and Curriculum Vitae analysis) and Information Sharing (reading material and company background and analysis).

2.5 Digital Platform

Digital platform has given a chance to diversify tourism products (Dredge et al., 2019). Digital platforms in the education sector offer transformative opportunities, enhancing learning experiences and administrative efficiency. They facilitate interactive and collaborative learning, providing students with

diverse resources (Hew & Cheung, 2014). Moreover, digital platforms streamline administrative processes, enabling efficient communication and resource management (Almajali & Masa'deh, 2019). In the department of education, the integration of digital platforms supports personalized learning, fosters technological literacy, and prepares students for a digitally-driven future (Nguyen, 2015). Embracing digital technologies in education aligns with global trends and empowers educational institutions to adapt to the evolving needs of students and educators alike. The 21st century has entered the 4th industrial revolution. The technologies like cloud computing, mobile application, Artificial Intelligence (AI) and Machine Learning (ML) have changed the profile of Human Resource (HR). Human resource and technology are the great contributors for the productivity of tourism sector. To compete the futuristic demand of tourism industry, there is need to look into “careful planning, positioning clear goals, curriculum planning, integrating hospitality/tourism curriculum, alliances and collaboration, and strengthening tourism and hospitality research” (Dahiya, 2013). He opined that there is need for implement above mentioned reforms. It implies the growth in global tourism education is leading towards the competitive tourism industry. There is need to improve Indian tourism education system. Morellato, 2014, Generation Z has stimulated higher education institutes to reform towards enlarged digital competency rather than just for digital skills. In information society, there is need to “developing digital competence in tourism education by considering new technologies and a cooperative learning paradigm” (p.184).

In conclusion, the literature underscores the importance of facilities in a tourism education department, encompassing classrooms, laboratories, libraries, and practical training setups, Internet or wifi. Institutions that prioritize and invest in these facilities create an environment conducive to effective learning and better prepare students for the challenges of the tourism industry. The following research questions were addressed through this research:

R1: What is the status of departments offering tourism education?

R2: What is the teaching experience of tourism academicians and their designation?

R3 What is the status of departmental infrastructure?

R4 What is the specialization and nature of tourism courses?

2.6 Research Objectives

The primary purpose of this study is to explore the existing departmental infrastructure of government universities providing tourism education and to understand academicians' perceptions of it. Specifically, the study seeks to achieve the following objectives:

1. To evaluate the institutional status and departmental affiliation of tourism programs in Indian government universities.
2. To profile the demographic landscape of tourism academicians, specifically regarding their designations and teaching experience.
3. To assess the availability and adequacy of departmental infrastructure, encompassing both foundational facilities and specialized digital tools.
4. To identify the nature of tourism courses and the range of specializations currently being offered to students.

3. Research Methodology

The study is exploratory in nature. And a sample of 129 tourism academicians was used for data collection. Among tourism academicians, the data were collected from Professors, Associate Professors, Assistant Professors, Guest Faculty and Research Scholars who are teaching in government universities of India. The respondents were asked to provide their opinions on institutional information, designation, departmental affiliation, teaching experience, infrastructure availability in the department (11 parameters), specialization and nature of courses offered. The data was analysed through SPSS software using descriptive statistics. The study used a close ended questionnaire.

4. Results

4.1 Institutional Information

This part of study shows (Table 1) the percentage distribution of respondents regarding designation and department affiliation. It asserts the opinions of academicians. About academicians the data collected about designation, department affiliation, infrastructure availability and years of teachings was collected. The table shows that most of the respondents are Assistant professors i.e. 33.3 percent of total respondents.

Table-1: Respondents designation

Designation	Percentage
Professor	11.6
Associate Professor	12.4
Assistant Professor	33.3
Guest Faculty	12.4
Tourism Research Scholar	30.2

Source: Primary data through questionnaire.

4.1.1 Department affiliation

Table 2 explains about the affiliation of the department whether it is a complete discipline in itself or is being disciplined by another department. Among total academic respondents, 62.8% (which is highest) respondents opined that they have a tourism department as an independent discipline.

Table-2: Department affiliation

Sr. No.	Departmental affiliation	Frequency	Percentage (%)
1	Independent department	81	62.8
2	Under Management Faculty	23	17.8
3	Under Commerce Faculty	10	7.8
4	Under Commerce and Management Faculty	7	5.4
5	Under Arts Faculty	8	6.2
6	Total	129	100.0

Source: Primary data through questionnaire.

4.1.2 Year of teaching in industry

It was tried to investigate for how long the majority of the respondents i.e. are serving either in academia. Table-3 shows that the majority of respondents are having teaching experience <5 years. It shows that tourism education is a new discipline, and it has huge opportunities in the tourism industry, academics, and research (Table-3).

Table-3: Teaching experience

Years of teaching	Tourism Academicians
<5	54.3
6-10	14.7
11-15	10.9
16-20	9.3
>20	10.9
Total	100.0

Source: Primary data through questionnaire.

4.2 Infrastructure availability in the tourism department

Table-4 clearly reveals the status of existing infrastructure in the institutions providing tourism education. It can be inferred from the table-4 that 72.87 % of respondents mentioned that “Yes” there is Computer lab in the department followed by Placement cell (72.09 %); Departmental Library and Internet or Wifi facility (71.72 %); Newspaper or Smart Class Room (70.54 %); Tourism journal (64.34 %); Tourism Magazine (63.57 %); Tourism Software (34.12 %); Tourism newspaper or Student Support Cell (15.50).

Table-4: Infrastructure availability in tourism department

Sr. No.	Facilities for students	Frequency	Percentage (%)
1.	Computer Lab	94	72.87
2.	Placement Cell	93	72.09
3.	Departmental Library	92	71.72
4	Internet-Wi-Fi	92	71.72
5	Newspaper	91	70.54
6	Smart Classroom(s)	91	70.54
7	Tourism Journal	83	64.34
8	Tourism Magazine	82	63.57
9	Tourism Software	44	34.12
10	Tourism Newspaper	20	15.50
11	Student Support Cell	20	15.50

Source: Primary data through questionnaire.

4.3 Specialisation based tourism education programs offered or not.

The 21st century is a knowledge-based economy, and it demands specialized knowledge. It was found that a big number of tourism education institutes are providing specialized programs.

Table-5: Specialization offered.

Sr. No.	Specialization offered	Percentage (%)
1.	Yes	60.5
2.	No	30.5
3.	Didn't Answer	9

Source: Primary data through questionnaire

4.4 Specialization based tourism education programs offered.

Table 6 shows the specialization of tourism programs offered in India, are general in nature and specialization programs as per the demand of the economy are near absent in the Indian education system. The majority (60.5 %) of academicians show that specialization-based tourism education is being provided in the country. But the research has also shown (Table-6) that Travel and Tourism Management, Tourism and Hospitality Management and Tourism Management are dominating the Indian tourism education system.

Table-6: Specialization based tourism education.

Specialization offered	Specialization offered	Specialization offered
Accounts and Tourism	Tour Operation, Airline Ticketing, Cargo Management, Event Management	Diploma in Medical Tourism
Adventure & Gastronomy Tourism	Tour operation, marketing, HR, Finance	Tourism Services
Adventure Tourism	Tour Operations / Event Management	Tourism and history
Adventure, Events, Travel Trade and Air Ticketing Air Fares and Ticketing	Tourism	Tourism and hospitality
Airlines, Tourism & Hospitality	Tourism	General MBA(Tourism) & Cargo HM, Tourism Marketing, Tourism Entrepreneurship and Tourism Management
Aviation Management and Event Management	Tourism & Hospitality	History and tourism

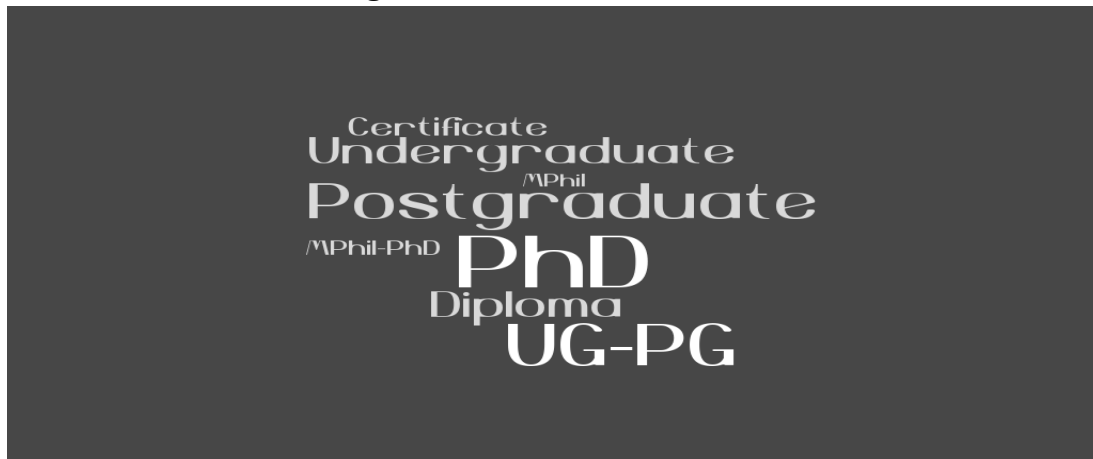
Aviation Management and Event Management	Tourism & Hospitality	Hotel and Tourism Management
Culinary Arts and tourism	Tourism & Hospitality	In Hospitality and Tourism
Cultural Tourism	Tourism & Hospitality	Inbound tourism and Outbound tourism as Major and Adventure tourism and Event Management as Minor
Master of Tourism Management	Teach French, Industrial visits	Tourism & Hospitality Management
MBA (T) HR and Marketing, BBA (tourism), and integrated BHMCT and MHMCT	Tour operation	Tourism and airlines
MBA BBA PhD	Tour operation	Tourism and hospitality
MBA BBA PhD	Tour Packaging operation, Event Management	Tourism and Hotel Management
MBA Tourism	Tourism Management	Tourism and Skills
MBA Tourism, PG Diploma in Tourism	Sustainable Development	Tourism and Travel disciplines
MBA Tourism, PG Diploma in Tourism	Tourism Studies	Tourism and Travel Management
Rural Tourism	Tourism Management	Tourism management
Sustainable Tourism	Travel & Tourism	Tourism management
Sustainable tourism	Travel & Tourism Management	
	Travel trade, marketing, cargo management and event management	Tourism Management

Source: Primary data through questionnaire.

4.4 Nature of tourism courses offered.

The word cloud image-1 shows, Tourism courses are offered as Certificate, Diploma, and Graduation, Post-Graduation, and Integrated Post graduation, Integrated MPhil cum PhD, MPhil and PhD. The image shows the largest size of 'PhD' and smallest by 'MPhil'. It was found that among 129 respondents, 55.81 (72 respondents) percent have mentioned that a PhD Course is taught in their department. Undergraduate and Post-graduation by 52 respondents, Post-graduation by 43 respondents, Under graduation by 28 respondents, Diploma by 36 respondents, Certificate by 13 respondents, MPhil cum PhD by 6 respondents and MPhil 3 by respondents.

Image-1: Nature of tourism courses



Source: Primary data through questionnaire.

*UG-PG Integrated Under Graduation and Post-graduation,**MPhil-PhD: Integrated Master of Philosophy cum Doctor of Philosophy. *The largest size of words depict the largest percentage/frequency.

5. Discussion and recommendations

With the growing demand of human resources for the tourism industry there is also a need to increase the number of educational institutes which provide tourism education.

5.1 Fulfilment of Objectives

The research objectives were successfully addressed through empirical data collection and descriptive analysis:

- **Fulfilment of Objective 1:** The study established that the majority of tourism departments (62.8%) operate as independent disciplines rather than being subordinate to other faculties (e.g., Management or Arts). This structural independence provides a dedicated environment for tourism education.
- **Fulfilment of Objective 2:** The academic profile of the respondents reveals a young and emerging discipline. The majority of faculty members are Assistant Professors (33.3%), with a significant portion (54.3%) possessing less than five years of teaching experience.
- **Fulfilment of Objective 3:** The assessment of 11 infrastructural parameters revealed a dichotomy in facility availability. While foundational infrastructure is well-established—with computer labs (72.87%), placement cells (72.09%), and Wi-Fi (71.72%) widely available—there is a critical deficit in industry-specific digital infrastructure. Notably, tourism software (34.12%), tourism newspapers (15.5%), and dedicated student support cells (15.5%) are significantly lacking.
- **Fulfilment of Objective 4:** The study found a robust offering of vertical academic progression, with programs ranging from certificates to PhDs (taught in 55.81% of the respondents' departments). However, while 60.5% of academicians reported that specializations are offered, the data indicates that these are heavily skewed toward general Travel and Tourism Management, with a notable absence of niche, futuristic specializations required by the modern economy.

5.2 Key Results

The key results are as follows:

1. The majority of the respondents were assistant professors.
2. The respondents have teaching experience less than five years. It is important to develop these faculty members with a great exposure to digital skills.
3. The study found that universities are providing diverse courses which vary from Certificate courses to doctorate programs.
4. The departments have independent affiliation and provide good exposure to the tourism students.
5. The tourism department is well equipped with basic infrastructure which helps to provide quality education.
6. The departmental infrastructure was assessed on the bases of Computer Lab, Placement Cell, Departmental Library, Internet-Wi-Fi, Newspaper, Smart Classroom(s), Tourism Journal, Tourism Magazine, Tourism Software, Tourism Newspaper and Student Support Cell
7. The study shows that there is need to improve the departmental infrastructure in context of Tourism Software, Tourism Newspaper and Student Support Cell

5.3 Recommendation

The study explored that there is a poor digital platform in the department regarding 'tourism software' training in the department. The facilities regarding 'computer lab' and departmental 'internet' are also lacking. Hence, Tourism Software, Tourism Newspaper and Student Support Cell are needed to incorporate in the department to cater to the growing need of the tourism industry. The future study can be explored to know the functionality of Computer Lab, Placement Cell, Departmental Library, Internet-Wi-Fi, Newspaper, Smart Classroom(s), Tourism Journal, Tourism Magazine, Tourism Software, Tourism Newspaper and Student Support Cell in the department and its availability per student.

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