

Indigenous Herbal Wellness: A Potent Threshold towards Growth of Tourism Business in Kashmir Horizon, India

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Abstract

Indigenous herbal medicine, despite its deep cultural roots, remains undervalued in the development of wellness tourism. Kashmir, a biodiversity hotspot of India, possesses a rich heritage of medicinal herbs with traditional therapeutic uses recorded in folklore since ancient times. The Valley's floral diversity presents considerable potential for promoting herbal wellness tourism. This study was undertaken with three objectives: to examine the potential of indigenous bio-herbal heritage for wellness tourism in Kashmir; to highlight the traditional medical significance of herbs in treating various ailments; and to analyze the economic benefits of medicinal plants within the emerging herbal wellness tourism industry and its contribution to host communities. One-Way ANOVA and pooled interval plots has been executed to assess variance (StDev) among wellness market segments, while regression analysis with fitted line plots was employed to explore tourist arrival trends. Analytical evaluation was conducted through MINITAB-18 to ensure reliability. Findings reveal dynamic shifts in wellness travel behavior, with beauty care and nutritional care dominating market shares, followed by alternative therapy, fitness centers, and rejuvenation practices. The study concludes that indigenous herbal wellness traditions significantly influence tourist behavior and present opportunities for local economic development. Furthermore, the revival of traditional herbal healing practices not only strengthens cultural identity but also introduces a new research dimension in wellness tourism scholarship.

Key Words: Herbal-Plants; Economic-boon; Healthcare; Indigenous; Tourism; Wellness.

Introduction

The Himalayan region of Jammu & Kashmir is globally recognized for its rich medicinal plant diversity and deep-seated traditional healthcare systems. Ethnobotanical studies in the region reveal extensive use of wild medicinal plants among local communities. For instance, a survey in the Tral region documented 47 plant species from 27 families used medicinally by local inhabitants (Mir, Mir, & Peer, 2024). Another study recorded 72 medicinal and aromatic plant species in the Kashmir Himalayan region, underscoring the depth of local knowledge systems

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(Gillani, Ahmad, et al. 2024). Such data suggest that the region's bio-cultural resources are considerable and potentially under-utilized. Indigenous communities in this area continue to rely heavily on herbal remedies for primary healthcare a dependency supported by the existence of hundreds of medicinal plant species, many of which are rare, endemic, and unique to the region (Gairola, Sharma, et al. 2014). These practices rooted in vernacular ethno medicine lend themselves naturally to the concept of wellness tourism, defined as travel motivated by the pursuit of physical, mental, or spiritual wellbeing, often including herbal or complementary medicine as a central feature (Dimon, 2013). Simultaneously, the tourism business environment in India (and specifically in mountainous and nature-centric destinations) is evolving to integrate wellness, nature, and experiential offerings. Research shows that wellness tourism is not only about treatments, but also about experience, motivation, nature-based settings and destination branding. For instance, a review focusing on the Indian wellness tourism sector underlined how wellness travel aligns with multiple Sustainable Development Goals (SDGs), and that the country's biodiversity and cultural heritage form a key competitive advantage (Bhuyan, Naik, et al. 2015). Another study validated a wellness-tourism motivation scale among Indian tourists, pointing to the importance of nature, self-exploration and novelty in wellness travel decisions (Dhillon, 2025). The Jammu & Kashmir government, acknowledging this synergy, has recently initiated AYUSH-based wellness centers across key tourist sites such as Pahalgam, Sonamarg, Srinagar, and Gulmarg to capitalize on the healing properties of indigenous herbal traditions (Kashmir Convener, 2023). With evolving global tourism trends and shifting traveler preferences, wellness tourism, medical tourism, and health tourism have emerged as prominent drivers in the international tourism sector in fact it is rapidly expanding segment, with global expenditures rising from approximately US\$439 billion in 2012 to an estimated US\$830 billion by 2023 (Global Wellness Institute, 2024). The economic and cultural benefits of herbal tourism are multifaceted. Regions offering herbal retreats and plant-based healing experiences not only enhance visitor spending through accommodations, workshops, and local crafts but also contribute substantially to local livelihoods by creating jobs for practitioners, guides, artisans, and hospitality staff (The Economic Botanist, 2025). This model simultaneously supports the preservation of indigenous herbal traditions and encourages sustainable, eco-conscious practices such as organic herb cultivation, conservation of rare species, and eco-friendly facility design (The Economic Botanist, 2025).

Kashmir is uniquely positioned to cultivate a niche tourism segment grounded in its botanical heritage, ecological integrity, and cultural heritage. Initiatives such as herbal parks, high-altitude medicinal plant sanctuaries, and institutions like the Institute of High Altitude Medicinal Plants in Doda district are actively preserving biodiversity while opening up avenues for herbal education, tourism, and agripreneurship (Precious Kashmir, 2022). However, the intensification of tourism in such ecologically sensitive landscapes also demands careful attention to sustainability. Reports suggest that unchecked tourist influx without effective regulation can lead to environmental degradation, particularly in fragile areas like Gulmarg, where the carrying capacity has already been exceeded (Qurashi, 2024). This emphasizes a critical tension between leveraging indigenous herbal wellness as a tourism asset and preserving the very ecosystems that support these traditions. Therefore, it becomes pivotal to harness the potential of indigenous bio-herbal diversity from the perspective of herbal wellness tourism in Kashmir. This stimulates highlighting traditional remedial practices, emphasizing the therapeutic significance of medicinal plants in addressing diverse health disorders, and providing insights into the economic benefits of ethnic medicinal resources within the framework of the herbal travel industry for the host community.

Research Gap: Apart from the above discussion it is apparent that Kashmir province being politically instable region the tourism activities suffered a lot since couple of decades as a result deficient number of research studies in context of indigenous herbal wellness has been conducted. Although a significant number of studies were realized over rest of the areas like, tourist satisfaction, destination loyalty, tourist behavioral intention to revisit; unfortunately herbal wellness studies are hardly to found. Existing literature has either documented plant use and ethno-medicinal knowledge or separately analyzed dynamics and general tourism statistics; few studies systematically link (a) the bio-cultural assets of Kashmir's medicinal flora and indigenous healing practices with (b) the market logic, product design, and enterprise models that could scale wellness. Hence the reason has prompted the present authors to take-up such initiative to address this research gap and contribute towards the existing literature in Kashmir horizon. Based on a depth literature investigation important objectives were identified and analyzed through systematic statistical methods.

Research Questions:

- Q1: Draw attention to traditional medical significance of herbs in association to diverse ailments?
- Q2: Discuss economic benefits of indigenous medicinal plants in reflection of herbal wellness tourism on host community?

This study intended to offer pragmatic insights into these research questions recognizing the value of Kashmir's indigenous herbal heritage through the lens of herbal wellness tourism in turn would generate widespread benefits extending beyond specific regions to impact positively the overall economy of Jammu and Kashmir. Such an approach would foster income generation, create employment opportunities, enhance the demand for indigenous produce, promote cultural exchange, and facilitate mobilization of ethnic herbal knowledge and expertise. Further it is anticipated to provide guidelines on the ways in which antecedents in the tourists' holiday environment can be identified and managed to increase tourist revisit intention, build healthy destination image and business in indigenous herbal wellness areas.

Organization/Structure of the paper: The next section reviews the scientific literature on conceptualizing ethno herbal tourism and medicinal-plant significance, followed by an overview of indigenous herbs a motivational factor towards wellness travel for market dynamics and in Jammu & Kashmir. Subsequent sections present empirical findings from field interviews and secondary data, discuss sustainable business approaches and conclude with concrete recommendations for practitioners, academia, local communities and policymakers interested in building a regenerative herbal-wellness tourism sector in Kashmir.

Literature Review

Conceptualize the Herbal Tourism

Herbal tourism, a form of traditional and alternative medicine tourism, integrates local ethno botanical knowledge into wellness offerings, providing treatments for conditions such as constipation, pustules, joint disorders, nerve stiffness and rheumatism, gout, and bone dislocation without reliance on allopathic medicine or surgical techniques. This niche promotes wellness through culturally embedded practices and natural remedies. Travelers increasingly seek unique, destination-specific wellness experiences grounded in indigenous healing methods,

including native plants and traditional practices (Global Wellness Institute, 2024). Moreover, scholars emphasize that traditional and alternative medicine tourism including Ayurveda, Traditional Complimentary Medicine, naturopathy, and herbal therapies is a recognized and growing component of health tourism (Tourism Institute, 2023). Herbal tourism stimulates travel for the purpose of promoting physical, mental or spiritual well-being has emerged as one of the fastest-growing segments of the global tourism industry. In the Indian context, wellness tourism is increasingly being recognized as a strategic growth area, rooted in the country's rich heritage of traditional healing systems like Ayurveda, Yoga and other indigenous health practices. For example, research shows that the Indian wellness-tourism sector is gaining momentum in the post-COVID era, positioning India as an emerging global herbal wellness hub (Choudhary, 2022).

Herbal tourism sits at the intersection of ethno-botany, wellness tourism, and place-based cultural heritage: it describes travel motivated by interest in medicinal plants, traditional healing practices, herbal gardens and related experiences (workshops, foraging walks, spa/tea therapies). In Kashmir a region with high medicinal-plant diversity and strong local knowledge systems herbal tourism is both a practical opportunity and a conservation challenge. This review synthesizes existing literature (ethno botany, conservation, wellness tourism) to propose a working conceptualization and identify empirical gaps for Kashmir-specific research and policy (Bhat, Singh, et al 2021). Herbal tourism a travel to experience, learn about, purchase, or benefit from plants used in traditional medicine and related cultural practices motivating visits to herbal gardens, guided ethno-botanic tours, participatory herbal workshops, inhalation/in-fusion therapies, and product-based experiences (herbal teas, oils, remedies). This concept draws on literature over wellness tourism, traditional health tourism (THT), and medical-tourism typologies (Al-ansi, Kim, et al. 2024). The literature indicates that Kashmir has both the bio-cultural resources and emerging grassroots initiatives to support a carefully governed herbal-tourism sector.

The Global Wellness Institute (2016) defines herbal tourism as the travel associated with the pursuit of maintaining or enhancing one's physical and psychological health." In contrast with medical tourism, which usually includes traveling for the objective of medical intervention to treat or cure illness (Carrera & Bridges, 2006; Yu & Ko, 2012). Unlike conventional tourism experience, the herbal tourism experience is more associated with the pursuit of maintaining or enhancing one's health physically and psychologically (Mueller & Kaufmann, 2001). Systematically analyzed individuals' herbal wellness experiences based on the extent of their participation and response to an external stimulus. They found that the herbal tourism experience comprises multiple dimensions that include educational, entertainment, esthetic, and escapist facets (Liao, Zuo, et al. 2018). The herbal wellness tourism experience not only improves tourists' functional status but also plays an important role in promoting physical and mental relaxation and well-being. People desiring self-improvement can enhance their self-perception through experience, use, purchase, and other behaviors (Liu, Zhou, 2023). Conceptually, herbal tourism should be framed as an integrated socio-ecological product grounded in ethno-botanical knowledge, packaged through wellness tourism design, and constrained by conservation and ethical governance.

Herbal Tourism 'Factor Motivation' Towards Wellness

Herbal tourism is increasingly recognized as a growing niche within the broader wellness tourism sector, primarily driven by visitors' motivations for natural, holistic, and culturally grounded healing experiences. Key motivational factors include the desire for health enhancement and preventive care, where tourists seek herbal therapies for detoxification, stress management, and lifestyle-related health improvements (Smith & Puczko, 2014). Another major driver is the authenticity of cultural experience, as travelers are motivated by the opportunity to engage with indigenous herbal knowledge and traditional healing practices (Voigt & Pforr, 2013). In addition, nature-based motivations play a vital role, with herbal tourism often associated with bio-diverse landscapes and immersive environments that promote rejuvenation and well-being (Goodarzi, Taghipour, et al 2017). The trend toward eco-wellness and sustainability further motivates wellness tourists to choose herbal-based treatments, aligning with environmentally conscious travel preferences (Kelly, 2012). Finally, the pursuit of spiritual and psychological well-being constitutes a central factor, as herbal tourism is frequently linked to stress reduction, mindfulness, and inner balance (Voigt, Brown, et al 2011). Collectively, these motivations highlight the multi-dimensional appeal of herbal tourism as a pathway toward physiological wellness. According to Brooker & Joppe (2014), herbal wellness tourism aims people who are proactive and interested in maintaining their health by offering them treatments like herbal therapies.

India has a potential to attract significant number of health tourists per annum which will contribute billions to the economy. Patients from various countries are becoming medical tourists to India for low cost and health restorative alternative treatments. The Medical Tourists undergo health restorative treatments of a combination of Ayurveda, yoga, acupuncture, herbal oil massage, nature therapies and some ancient Indian healthcare methods. This novel phenomenon has been acknowledged as the Unique Selling Proposition (USP) of Kerala (Borgohain 2015). The key factors that contribute to this are the availability of trained, skilled English and foreign language speaking doctors and paramedics, pleasant weather with two monsoons ideal for treatments, availability of authentic medicines due to the medicinal plants wealth, large number of accredited wellness centers and resorts. Wellness seekers around the world opt for Kerala as a most sought after "Wellness Tourism Destination". In Kerala, Ayurveda is not only an alternative way of treatment but also one of the powerful engines for its economic and employment growth. It is estimated that around 30% of the foreign tourists visiting Kerala are for wellness purpose (approx 3.3 lakh) and about 40% of the State's tourism revenue is generated from Ayurveda (i.e appox Rs. 17,000 crore). Ayurveda and wellness has become synonymous in Kerala and the State has embarked on ensuring various parameters to certify the Wellness centers and hospitals though its classification norms and committees (Krishnan, 2020). Herbal tourism represents an emerging niche market that is progressively expanding across the horizons of Jammu and Kashmir. In various geographical belts, the wellness components vary according to the prevalence of herbal diversity, traditional therapies, and wellness expertise. The Union Territory of Kashmir holds significant potential to be recognized as an abode of indigenous herbal wellness. Many of the recognized wellness practices like naturopathy, Ayurveda, homeopathy are considerably being practiced since immemorial times in Kashmir Vale. Lawrence (2014), elaborated that I have known cases in which some of my subordinates have derived great benefit from the skill of the Kashmiri Hakim. Once, when I was in great anxiety, a deputation of Kashmiris begged me to allow a well-known *Hakim* to treat my son. They urged that this *Hakim* had never failed to cure the disease. The *Hakim* had a great knowl-

edge of herbs and their herb collectors are the shepherds, who spend the summer on the high mountains where the herbs are found. The discussion highlights perspectives on wellness tourism while offering literary insights into the herbal wealth of Kashmir, which can be further harnessed for developing the region's herbal wellness tourism. Meanwhile may serve as a foundation for advancing research-driven initiatives in herbal wellness tourism.

Methodology

Research Design

The study is exploratory in nature and grounded in extensive fieldwork. It adopts a mixed-methods design, combining qualitative and quantitative approaches to ensure comprehensive data collection, evaluation, and interpretation.

Population and Sampling

Purposive sampling was employed to select respondents based on their expertise and availability. The sample consisted of 50 indigenous folk herbal healing practitioners drawn from distinct, selective regions. This sampling approach was considered appropriate due to the specialized knowledge required for the study.

Data Collection Method

Primary data were collected in two phases.

1. Pilot Surveys were conducted to identify and catalogue herbal species.
2. Community Interactions were carried out to document knowledge on the uses, properties, modes of administration, and medicinal efficacies of these species.

Self administered open-ended questionnaires were used to capture quantitative data, allowing flexibility in responses while ensuring consistency across participants. Haldar (2023), the questionnaire was designed on the basis of the literature review each item of the instrument was measured on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Additionally, an interview schedule was administered to selected informants. This method was chosen to provide in-depth narratives that could not be obtained through structured instruments alone.

Data Analysis Technique

Qualitative Data: Responses were organized into themes and analyzed using content analysis. Content analysis was justified because it allows for systematic categorization of textual data, thereby identifying recurring themes and patterns within indigenous facts and information. Badam (2024), themes have been classified as one of the pertinent areas according to proper codes assigned. Some themes could have been in two of categories but it was decided to classify the themes into a category they considered most relevant through induction process to reach on point of conversion/deduction. The exercise was settled with the framework of 'substitution/conceptual method and correlation/relational method. Since analyze average mean values and deviation/variance in classified themes 'ANOVA technique (One way ANOVA)' has

been applied to bring validity. To achieve reliability in the results advanced analytical software MINITAB-18 has been utilized.

Quantitative Data: Statistical evaluation was conducted using MINITAB-18 ensuring accuracy, reliability, and robustness of results. One-Way ANOVA with pooled interval plots was employed to assess variance (StDev) across variables. Regression analysis was applied to examine the strength and direction of relationships among variables and to forecast business trends. Furthermore, fitted line plot were used to scrutinize current trends and the prospective growth of tourist arrivals.

Indigenous Herbal Plants of Kashmir: Diversity and Potential

The tourism in Jammu and Kashmir offers a wide array of places to see. The delighting backwaters, hill stations and landscape make J&K a beautiful tourist destination. Historical monuments, forts, places of religious importance, hill resorts, etc. add to the grandeur of the state. Thus, they attract tourists from all over the world. Jammu and Kashmir especially Kashmir valley offers various categories of tourism. These include adventure tourism, medical tourism, water rafting, skiing, religious tourism, etc. Jammu and Kashmir has a composite culture. Tourism has now become a significant industry in J&K, contributing enormously to the state's economy and providing employment to a large number of people. Keeping in view the above fact, it is obvious that the district Anantnag of Kashmir province is engulfed with the stunning potential of indigenous ethno-herbal species. The diversity of the herbs would beget the huge prospective market to the state tourism industry in the light of traditional herbal usages. These indigenous ethno herbs have a tremendous medicinal efficacy to cure different health ailments especially on endeavor of proficient *Hakims* and *Vaids* of Kashmir belt.

There has been found various indigenous ethno-herbs in the study area and are appended with their scientific name, followed by local name, ailments against which plant is used and mode of administration. The sequence of plant species, collected and identified in the present investigation, is given in the following manner.

Table 1. Indigenous Herbs with Traditional Healthcare Remedies (Herb Kingdom)

S.No	Scientific Name	Vernacular Name	Herb Parts Used	Used against Ailments	Mode of Administration
01	Artemisia ab-sinthian	<i>Tethwen</i>	Leaves	Obesity, diabetes, liver troubles, digestion problems, and anthelmintic (helminthes).	Extract is prepared from leaves and used to treat helminthes to any age group. The leaves and stalks of plants are soaked in boiled water and tourniquet around dislocated joints.
02	Capsella Bursa-pastoris	<i>Krala mundu</i>	Leaves	Demulcent, blood deficiency, anthelmintic (helminthes), diuretic and duodenum purging.	The leaves of the herb are taken as raw food and sometimes the weed is boiled in water to yield medicinal substance.
03	Rheum Emodi.	<i>Pamb-tsalan</i>	Stalks and roots.	Pustule, blisters, diabetes, inflammation, fungal diseases, microbial infection, ulcer and cancer.	The herb leaves are used as vegetable. The roots are bruised or grind and soften in raw mustard oil and use as paste. The extracts from the stalks and root is also used as decoction to take as remedies.

04	Urtica Dioica	Soi/Nettle	Roots, leaves and stalk.	Dermatitis, diuretic, rheumatoid, numbness, sensation, anti-itching and kidney stone (Calcium oxalate).	The herb is mostly used as 'contact urticari' because spicules of stalk and leaves causing mechanical irritation. Further the roots are intensively steamed till the substances tend to extract and used as decoction.
05	Iris kashmiriana	<i>Mazar Mund</i>	Whole herb	Joint pains	A mixture of rhizome powder, water and sugar is made and is given as a tonic to body weakness.
06	Malva neglecta	Sochal	Leaves	Constipation, diabetes and piles	Leaves are cooked and taken along with food
07	Nepeta cataria	<i>Brade-gass</i>	whole plant	Stomach swelling, Heartburn, high cholesterol, vomiting, and anti-helminthic.	Whole plant is dried and then boiled, meshed or squeezed to form an extract. It is sometimes used as mixture with 'Saunff' (Fennel) to reduce stomach aches. It is used along with turmeric to treat increased cholesterol levels. It can be also used as anti-parasitic that expel helminthes from the body either through killing or stun them without causing significant damage to the host.
08	Portulaca oleracea	<i>Nuner</i>	Whole Plant	Gynaecological purposes and styptic internally.	Plant is cooked as vegetable and is effective against urinary tract infections.
09	Taraxacum officinale	<i>Handd</i>	Whole plant	Gynaecological purposes and styptic internally.	Usually post infant delivery ladies often consume cooked plant so as to compensate blood loss and strengthen bones. Whole plant along with turmeric is boiled for a while and then tied over in case of joint pains and swelling anywhere in body parts.
10	Euphorbia helioscopia	Guer Deud	Seeds and roots.	Abdominal cramps and Cholera.	Decoction of entire plants is used to treat cough, dysentery and Jaundice.
11	Lavatera Cashmeriana	<i>Saz-posh</i>	Flower	Irritation in pregnant women, cardiac tonic, antiphlogistic and renal colic.	Decoction of plant flowers and buds are used to treat. However flowers have been reported to be processed and consequently used for cold, mumps and seeds as antiseptic.
12	Cichorium intybus	<i>Handiposh</i>	Flower and roots.	Wounds, diabetes, Cardiac tonic, constipation, dysentery antiphlogistic, kidney problem, and jaundice.	Roots are baked, grind and used as such. Flowers steamed in water the decoction is sipped as medicine.

Source: Kantha et.al.(2018,p.95), Kumar et al. (2018,p.85

Table 2. Indigenous Herbs with Traditional Healthcare Remedies (Plant Kingdom)

S.No	Scientific Name	Vernacular Name	Plant Part Used	Used against Ailments	Mode of Administration
01	<i>Solanum nugrum</i>	<i>Kamber</i>	Berries and leaves.	Renal disorder, liver trouble, digestion problems, anthelmintic (helminthes), Obesity, and gastro-intestinal purging.	Ripened berries can be taken directly in raw form while as leaves are used as food and plant berries as traditional medicine. Parts of this can be toxic to humans and livestock.
02	<i>Celosia</i>	<i>Mawal/ Cockscomb</i>	Seeds	Demulcent, intestinal worms, blood disease, mouth sores, eye problem, chronic rheumatism, Diuretic, liver and kidney disorder.	The extracted seeds are processed and pulverized into powder. Powder is used as culinary delicacies and adding flavor to the cuisine like Wazwan.
03	<i>Ocimum Basilicum</i>	<i>Babrebeol/ Basil</i>	Seeds, leaves, and flower buds.	Weight loss, curbing appetite, Diabetes, blood sugar problem, Constipation, hair loss, dermatitis, stress	Seeds are soaked in water and taken early in the morning as well as in day hours to reduce troubles. Decoction is also made in which leaves are steeped in water so as to extract the flavor.
04	<i>Peganum Harmala</i>	<i>Izband</i>	Roots, Seeds and leaves.	Skin inflammation, skin cancer, unusual pain, parasicide, roundworm etc.	The leaves are taken to be grind into flour which is likely to let stiffen after adding a drop of oil. The seeds can be used as such for spiritual uses to produce wafts of smoke.

Source: Bamzai,(2007,p.370), Lawrence .(2014,p.328), Rahman.(2005,p311)

Table 3. Indigenous Herbs with Traditional Healthcare Remedies (Shrub Kingdom)

S.No	Scientific Name	Vernacular Name	Shrub Parts Used	Used against Ailments	Mode of Administration
01	<i>Datura stramonium</i>	<i>Datur</i>	Seeds	Rheumatism and Chill-blain.	Seeds are sundried and crushed to make powder which is mixed with water to treat cough and Fever. Paste is applied in case of tooth ache. Decoction is also prepared for body aches.
02	<i>Viburnum grandiflorum</i>	<i>Kul-maanch</i>	Leaves and berries.	Stomach problem, constipation, fever, prostate, blood impurity and vision problem.	A preparation of fresh, moistened, or crushed dried leaves is made and to be taken orally. The ripened berries are directly eaten.
03	<i>Dioscorea deltoidea</i>	Krith	Seeds leaves, and roots	Contraceptive, parasicide, roundworm, and arthritis.	The juice of the root tuber is taken to treat roundworms, various disorders of the genital organs as well as asthma and arthritis.

Source: Hassan et al.(2013,p.201), Kumar et al.(2018,p.83)

Table 4. Indigenous ethno-Herbs with Traditional Healthcare Remedies (Tree Kingdom)

S.No	Scientific Name	Vernacular Name	Tree parts Used	Used against Ailments	Mode of Administration
01	<i>Juglans regia</i>	<i>Doon kul</i>	Leaves and bark.	Tooth infection, gum bleeding, and gum inflammation.	Decoction of leaves is taken in case of intestinal worms, vaginal infections and inflammation.
02	<i>Pyrus Cydonia</i>	Bam Tchunt	Fruits and Seeds.	Cough, vocal Fissure, Soaring, liver trouble, and demulcent.	Ripened fruit is sometimes kept beneath the embers of fire until the fruit gets hyper heated from inside. The seeds and adhesive resin can be extracted out of fruit likely to be used as decoction.
03	<i>Celtis caucasica</i>	<i>Brimji</i>	Seeds	Rheumatism	Seeds are used for paralysis and joint pain. A paste is prepared from seeds then used to treat inflammation and fibrous tissues hitches.

Source: Kumar et al.(2018,p.82), Kapahi et.al,(1993,p.121)

Table 5. Indigenous Herbs with Traditional Healthcare Remedies (Fungus Kingdom)

S.No	Scientific Name	Vernacular Name	Fungus parts Used	Used against Ailments	Mode of Administration
01	<i>Agaricus Campestris</i>	<i>Hedur</i>	Whole fungus	Cancer, Gout, diabetes, blood impurities, high cholesterol tonic, etc.	It is kept soaked in lukewarm water for the preparation of culinary delicacies. Fungus is fried in curcumin powder and use in the form of alimentation.

Source: Lawrence, (2014,p.322), Rahman,(2005,p.311)

The tables above highlight two important aspects of the medicinal herbs discussed. First, several plants are indigenous to the Kashmir region and have long been used according to local traditions, practices, and folk knowledge. Second, herbs native to other parts of India are also utilized in Kashmir, adapted into local folk traditions to treat various ailments, as illustrated in Tables 1-5. These medicinal plants not only serve therapeutic purposes but also hold potential to attract a special segment of health and wellness tourists to the valley. Since ancient times, the local population has relied on these herbs to treat a wide range of health disorders such as dyspepsia, joint dislocations, rheumatoid conditions, and anemia, a cultural practice that continues in some areas of Kashmir even today. Contemporary research shows that people across the world increasingly travel to destinations offering health and wellness experiences. In this context, Kashmir possesses significant potential to develop a niche market in herbal wellness tourism. The integration of indigenous herbal practices can thus serve as a motivational factor for visitors, contributing to the sustainable growth of the region's tourism industry.

Bio-Herbal Heritage Valuables: The Implications

A significant proportion of the valley's population resides in rural catchments, where traditional socio-cultural practices remain deeply embedded in daily life. Rituals and communal activities such as *Urs*, *Melas*, folk festivals, knot-vow ceremonies, temple *darshanas*, thread-donning rites, and beliefs in incantations or sorcery continue to hold cultural significance. Despite the widespread availability of modern medicine, many communities in these areas persist in utilizing indigenous herbs as a primary means of promoting overall physical wellbeing. Ethnic medicinal plants, therefore, constitute an essential component of both healthcare and cultural identity in Kashmir. Their usage extends across the valley, reflecting a longstanding ethnobotanical tradition. The following section elaborates on selected locale-specific applications of these medicinal herbs within the region's socio-cultural profile.

Healthcare and Wellness

In the southern belt of the valley, *Hakims* and *Vaids* traditionally ascribed medicinal properties to nearly every plant or herb. Their expertise was widely acknowledged, with even non-locals recognizing the efficacy of the treatments and often citing remarkable cures attributed to the indigenous ethno-herbs of the region. The *Hakims* possessed extensive knowledge of herbal medicine, supported by herb-collectors "primarily shepherds" who spent the summers in remote backwoods, high-altitude thickets, mountain peaks, and dense pastures while tending their cattle and flocks. These environments provided access to some of the most valuable medicinal species. Knowledge of herbal remedies was not limited to practitioners alone; members of agricultural communities were also familiar with the therapeutic properties of many plants, employing them in self-prepared treatments for common ailments. Owing to the region's rich and unique floristic diversity, a considerable proportion of plant species have historically been used in medicinal practice. The traditional use of these herbs transmitted through folklore, oral traditions, and manuscript records dates back to antiquity and likely constituted the principal means of preventing and curing diseases prior to the advent of modern medicine. The therapeutic potential of these plants is further validated by contemporary scientific insights, as many species are now known to possess bioactive compounds with anti-cancer, antioxidant (anti-aging), antipyretic, antiasthmatic, diuretic, and other pharmacological properties.

A number of traditional medicinal herbs are frequently employed as remedies for diverse ailments, including muscle cramps, bone fractures and dislocations, nerve stiffness, post-circumcision care, acute toothache, diabetes, prostate disorders, piles, cardiac complications, and helminthic infections. Some of the most commonly utilized species include *Datura stramonium* (*Datura*), *Iris kashmiriana* (*Mazar Mund*), and *Lavatera cashmeriana* (*Soz-Posh*). Among aquatic plants, *Nelumbium nucifera* (*Lotus*) is particularly esteemed for its high medicinal value. Its fleshy rhizomes (*Nadru*), in addition to being palatable and nutritious, are traditionally used to treat diarrhea, dysentery, dyspepsia, skin disorders, and even smallpox. Honey produced exclusively from lotus flowers is regarded as a valuable tonic, while infusions of lotus seeds, *Euryale ferox* (*Juwar*), and *Nymphaea stellata* (*Bumiposh*) are appreciated for their invigorating properties. Other notable species include duckweeds (*Lemna* spp.), valued for their cooling, astringent, and diuretic effects, and commonly applied in the treatment of eye ail-

ments. *Potamogeton natans* has been reported in homeopathic practice, whereas species of *Utricularia* (Bladderwort) are traditionally employed to alleviate cough and to dress wounds. In addition to general practitioners of herbal medicine, certain specialists in the valley are known to treat medical conditions such as bone fractures and dislocations, as well as more complex cases. Another category of practitioners focuses on dermatological issues, addressing abscesses, blisters, severe boils, and other skin diseases through the application of ointments and antiphlogistic preparations derived from indigenous herbs. Despite the availability of allopathic medical facilities at sub-hospitals in the study area, a considerable proportion of the population particularly villagers continues to seek ethno-herbal prescriptions and dosages. Women, elderly citizens, and children are frequently observed visiting the centers of local *Hakims* and *Vaids*, anticipating remedies that are perceived to enhance physical health. Within the community, herbal medicines are often regarded as possessing not only therapeutic but also spiritual efficacy, believed to accelerate healing processes. Ethnographic interactions further corroborate this cultural reliance on indigenous medicine. For instance, during an interview with a resident of *Sheikhpura* (Pahalgam), the respondent explained: "Whenever any of our companions experienced physical ailments, we relied on indigenous herbs, locally called '*Jaddi Butti*'. These '*Jaddi Butties*' were considered the best remedies, even for diseases such as pneumonia."

Indigenous Medicinal plants a Catalyst for Herbal-wellness Tourism Expansion

The persistence of local traditions in the Kashmir valley can be attributed primarily to the region's geographical seclusion. Mountain barriers and the resulting isolation, characteristic of Himalayan territories, have historically fostered conservative ways of life, thought, and cultural practices. These tendencies are most prominently observed among the inhabitants of the valley and have played a significant role in the preservation of indigenous traditions. In this context, Kashmir often referred to as "the Paradise on Earth" nurtures a remarkable diversity of herbal species, surpassing that of many other Indian states. The unique composition of herbal resources in the region is intrinsically shaped by its physiographic factors, including climatic characteristics, seasonal weather patterns, relief features, orographic influences, and natural boundaries. Collectively, these conditions endow Kashmir with an unprecedented identity, not only within the sphere of ethnomedicine and herbal wealth but also across broader domains of physical and natural geography.

Equally undeniable is the fact that the state possesses a vast treasure of indigenous ethno-herbal heritage, representing immense potential for the tourism industry particularly through the development of herbal tourism in District Anantnag. The study area has historically drawn the attention of diverse groups of people worldwide, each for different reasons. Today, the presence of numerous species of traditional medicinal herbs scattered across the region has the capacity to attract visitors with specialized interests. These herbal resources can be positioned as supply-side products to meet demand-side expectations within niche tourism markets, catering to experiences such as floral research, healthcare and wellness, herbal remedies, ethnobotanical knowledge, and herb-based leisure. Such initiatives not only enhance the experiential quality for visitors but also contribute to the sustainability of the destination. This trend positions Anantnag as a *sui generis* platform within the broader profile of Jammu and Kashmir's tourism sector. The indigenous ethno-herbal heritage of Anantnag represents a potent tourism product that requires strategic marketing to effectively reach prospective markets. Properly leveraged, it can establish a threshold for the herbal tourism industry, generating sub-

stantial socio-economic benefits for local communities. Consequently, this approach offers a viable pathway for sustaining and expanding the tourist base of the destination, ensuring product diversification, competitive advantage, and long-term market growth. According to Medlik, (1991), tourist needs, wants, perceptions expectations and price sensitivity etc are crucial domains to push a market towards the specific –interest destination. The travelling public is, diverse and demanding. No tourist area can compete successfully without carefully considering who its visitors are or who it wants its visitors to be. Whatever the situation a tourist area must offer and be able to deliver a ‘tourist experience’ that is unique and intensely satisfying. Experiences that are second rate quickly result in a declining tourist base.

Herbal-heritage tourism is a relatively new concept within the broader framework of the modern tourism sector in Jammu and Kashmir. It is noteworthy that the preferences and priorities of diverse categories of tourists increasingly demonstrate a positive inclination toward indigenous ethnocultural heritage, particularly the use of traditional herbs adapted for tourism purposes. These resources not only represent cultural continuity but also serve as important motivational factors influencing travel decisions and destination choice. Given this trend, it is of prime importance to recognize and harness the potential of the Kashmiri tourism industry in the context of herbal-tourism development. To fully realize this potential, there is a pressing need to design and implement a strategic framework for medical and herbal tourism. Such a structure would integrate traditional herbal practices with contemporary wellness tourism, thereby creating sustainable opportunities for regional economic growth while promoting Kashmir as a distinctive global destination for health and heritage experiences.

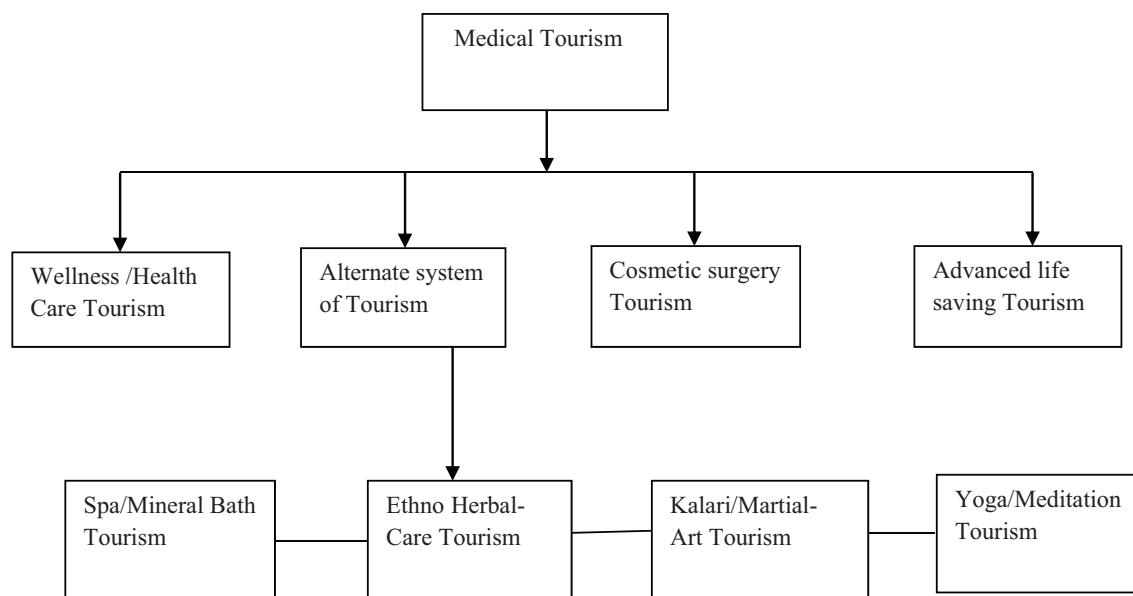


Figure 1. Medical Tourism Structure

Source: Dawn and Pal. (2011)

Herbal Wellness a Constructive Threshold for Travel Business Escalation

In the contemporary period, herbal wellness tourism has emerged as a significant niche within the global tourism market, with destinations such as Sri Lanka, Thailand, Kerala, and Dharamshala witnessing remarkable growth in this sector. Similarly, the southern belt of Kashmir province possesses vast yet untapped potential in terms of medicinal plant biodiversity, which, if strategically developed, could substantially benefit the local economy by attracting visitor interest toward experiential herbal products. This rich heritage of medicinal flora offers considerable revenue opportunities by appealing to both homogeneous (wellness-focused) and heterogeneous (general tourist) market segments, thereby fostering the expansion of indigenous herbal tourism. Developing this sector for prospective markets would generate diverse benefits for the local economy, including new business opportunities for host residents, support for traditional cottage industries, promotion of handicrafts, revitalization of folk herbal-care professions, and enhanced revenues for destination governments. Furthermore, it has the potential to mitigate various economic challenges faced by the region, as outlined below:

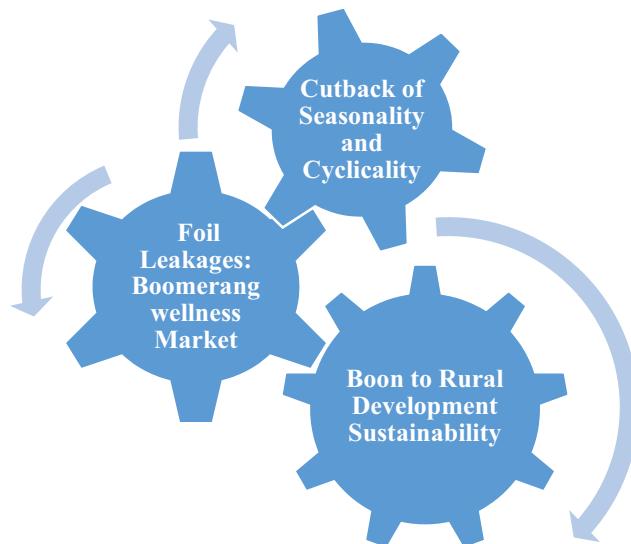


Figure 2. Tourism Business Escalation

Source: Self constructed by author

Cutback of Seasonality and Cyclical

Expenditure generated through herbal wellness tourism would directly support the local economy and contribute to increased revenue streams. More importantly, it has the potential to transform seasonal and cyclical employment patterns into year-round engagement opportunities. At present, tourist arrivals to the region are largely conditioned by seasonal preferences linked to specific experiences. For instance, visitors seeking snowfall typically arrive during the winter season, while those wishing to witness the tulip blossoms are drawn in spring. Such season-dependent attractions inevitably influence the flow of tourist markets and reinforce the cyclical nature of employment within the sector. In contrast, the development of herbal wellness

tourism less constrained by seasonality could extend the tourist calendar throughout the year. This shift would stabilize demand, provide more consistent income to local communities, and reduce the vulnerability of the regional economy to seasonal fluctuations. The development of herbal wellness tourism in the region is of prime importance, as it holds the potential to generate revenue consistently throughout the year, thereby mitigating the challenges of seasonality and cyclical. Unlike other tourism segments that rely on specific environmental conditions such as snowfall in winter or tulip blossoms in spring herbal wellness tourism is not confined to a particular season. Health and wellness concerns are universal and continuous, often arising out of necessity or urgency rather than discretionary choices of time, income, or season. While natural attractions such as snow or blossoms cannot be preserved for off-season experiences, indigenous herbal wellness offers a unique advantage by providing year-round opportunities for rejuvenation and healing. This perspective underscores the need to design a structured framework for herbal wellness tourism in Jammu and Kashmir. Such an approach would not only reduce the vulnerabilities associated with seasonal fluctuations in the global tourism market but also strengthen the region's tourism sector by diversifying consumer attitudes, interests, and experiences. Ultimately, it would contribute to sustainable economic growth and yield multi-dimensional benefits for the local economy.

Table 6. Wellness Market in India: Segment wise share

Market Area	2015	2020
Beauty Care	41%	40%
Nutritional Care	27%	27%
Alternate Therapy	19%	15%
Rejuvenation	1%	2%
Fitness Centres	12%	16%

Source: AYUSH report J&K

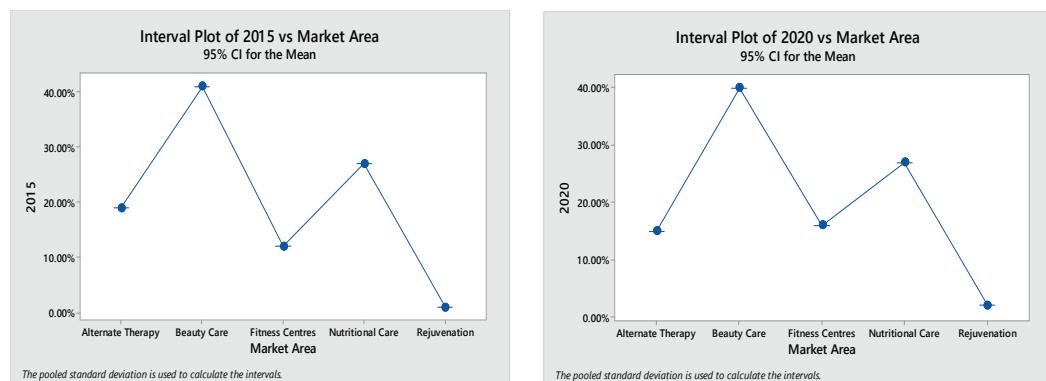


Figure 3 & 4: One-way ANOVA: 2015 & 2020 versus Market Area

Source: Executed by Author

Table 7. Factor Information

Factor	Levels	Values
2020	5	2.00%, 15.00%, 16.00%, 27.00%, 40.00%
2015	5	1.00%, 19.00%, 12.00%, 27.00%, 41.00%

Source: Compiled by Author

Table 8. Factor Means 2015 & 2020 of identified variables/Contents

2020	N	2015	Values	StDev
2.00%	1	1.00%	Rejuvenation	(+1%)
15.00%	1	19.00%	Alternate Therapy	(-4%)
16.00%	1	12.00%	Fitness Centres	(+4%)
27.00%	1	27.00%	Nutritional Care	(+0%)
40.00%	1	41.00%	Beauty Care	(-1%)

Pooled StDev = +0.1

Source: Compiled by Author

Analysis of the available data, using descriptive statistics, indicates that the wellness market in India demonstrated significant progress between 2015 and 2020. Five variables were employed to assess the behavior of wellness travel in the country: beauty care, nutritional care, alternative therapy, rejuvenation, and fitness centers. It is assumed that similar trends could influence the potential development of herbal tourism in Jammu and Kashmir. The application of a one-way ANOVA, supported by pooled interval plots, reveals notable shifts among these variables during the study period. In 2015, beauty care accounted for the largest market share at 41%, followed by nutritional care at 27%, alternative therapy at 19%, rejuvenation at 1%, and fitness centers at 12%. By 2020, beauty care retained its leading share at 40%, nutritional care remained constant at 27%, alternative therapy declined to 15%, rejuvenation increased slightly to 2%, and fitness centers grew to 16% (Ref. Tab. 6 & 8). Interpretation of the interval plot graphs (Fig. 3 & 4) demonstrates that the beauty care segment consistently held the prime position in contributing to the country's economic growth. Nutritional care maintained the second position, while the fitness segment showed a sharp recovery after an earlier decline. The rejuvenation segment, although representing the smallest market share across the period, registered a marginal growth of one percent, highlighting its emerging potential within the broader wellness market.

Table 9. Descriptive Statistics: Analysis of Variance among Variable/Contents

Variable	N	StDev	Variance	95% CI for σ using Bonett	95% CI for σ using Chi-Square
2015	5	0.151	0.0229	(0.071, 0.533)	(0.091, 0.435)
2020	5	0.143	0.0204	(0.066, 0.511)	(0.085, 0.410)

Source: Compiled by Author

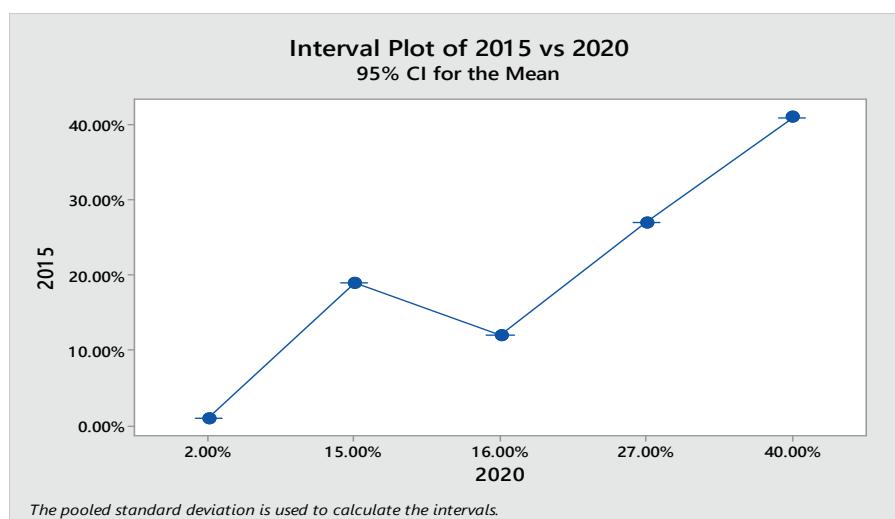


Figure 5. Interval Plot of 2015 versus 2020

Source: Executed by Author

A notable variance is observed in the fitness centers segment, which registered a positive shift of +4%, increasing from 12% in 2015 to 16% in 2020. Similarly, the rejuvenation segment recorded a modest positive variance of +1%, rising from 1% to 2% during the defined period (Ref. Tab. 8). By contrast, the determinants alternative therapy and beauty care exhibited negative variances of -4% and -1%, declining from 19% to 15% and from 41% to 40%, respectively. The nutritional care segment remained stable at 27%, showing no variance across the two time points as confirmed by the one-way ANOVA interval plot (Ref. Tab. 8; Fig. 4). The aggregate variance across all variables was calculated at 0.0229 with a standard deviation (StDev) of 0.151 in 2015, while in 2020 the aggregate variance was 0.0204 with a StDev of 0.143. These results suggest that no drastic variations occurred among the evaluated variables with respect to their contribution to the growth of wellness tourism in India. Instead, only slight fluctuations were observed across individual market share segments during the study period, indicating relative stability in the overall structure of the wellness market.

Foil Leakages: Boomerang Herbal Wellness Market

Leakage is an instant trait to holidaymaker expenditure not entering the regional economy to contribute gross domestic product (GDP). Delineated by Mill and Morrison, (1992), leakages occur from variety of sources. The extent to which a destination can minimize these effects will determine the size of the foreign exchange earnings. Leakages occur first from the cost of goods and services that must be purchased to satisfy the needs of the tourist. If a tourist wishes steak and if that steak is imported, the cost of the steak is an import cost set against earnings. Local industries may also import part of their raw material to produce goods for tourists, this also is cost. A second cost may occur when importing goods and materials for infrastructure and buildings required for tourism development. The use of materials indigenous to the area will not only reduce import costs but will also add an authentic look to the facilities.

Apropos to the above statement it is relatively illustrated that with the development of herbal tourism, firstly the raw material used for the healthcare services or final consumer goods whether imported or transported from the neighboring cross border states would be controlled. Likely the import costs charged on commodities would be controlled even the leakages leaping out from the region can be retained with ease. Secondly, it is prevalent in Kashmir maximum health concern people rush outside states for physical wellbeing, medical and remedial purpose; since, people don't avail proficient medical facilities in domicile territory to attain value satisfaction.

Notwithstanding, Kashmir bestowed with valuable indigenous herbs attributed of medicinal properties that offers wellness remedies to customer; as a result contributes to reverse and retain the potential market. Continuing, hence herbal tourism industry in horizon would boomerang not only host communities but also people from alien geographical regions as well by facilitating ethno wellness care services and other tourist oriented experiences. As it is observed from the data available (*ref.tab.10*) while establishment of herbal experientials for tourist engagement, travel market considerably attracts towards assessment area; this may result future revisit intention through diversifying and rebuilding destination image among actual tourists. In this concern there has been realized substantial rise in foreign traveler's statistics during couple of preceding years. In 2010, Kashmir province recorded 25,984 foreign tourist arrivals. This number grew considerably by 2015, indicating an upward trend in international tourism to the region. The area experienced remarkable growth in total tourist arrivals between 2020 and 2023; footfall further soared from 3,476,153 in 2020 to 11,316,484 in 2021, followed at 18,884,317 in 2022 and 21,180,011 in 2023 respectively.

Boon to Rural Development Sustainability

The Rural Community consists of people living on the dispersed farmsteads and in a hamlet or village settlements which forms the centre of their common activities, local traditions and shared cultural usages. Concerning to this perspective "Rural Development" can be elaborated a comprehensive socio-economic process undertaken by the government as well as community involvement for the purpose of improving the socioeconomic conditions of the people living in rural areas. It represents planned programs to change and improve the quality of the life-style, personality, characteristic behavior of rural people. Accordingly, the phenomena of herbal wellness travel can be enumerated as one of the comprehensive initiative for the all-round empowerment of rural residents. Likewise, with the growth and development of indigenous herbal medicinal travel industry people would come to know the avenues and opportu-

nities of employment and durable sustenance. Since, along the upward surge of tourist footfall at a destination it would accrue significant benefits to host economy in the form of employment and livelihood opportunities (i.e., direct employment in herbal spas, wellness retreats, and traditional healing centers), local economic growth, cultural and knowledge preservation (i.e., encourages the transmission of indigenous knowledge about herbs and healing practices), community empowerment and social inclusion (e.g., Supports women and marginalized groups, who often hold traditional herbal knowledge), boosts sustainable herb cultivation and biodiversity conservation through ecotourism. Subsequently this would advantage to building up of the rural life style, cross-cultural assimilation through host guest interaction process, bring-up community consciousness and rural rationalization in one hand. One other hand, system of infrastructure would be developed for the betterment of residents. The sanitation facilities, public conveniences, roads and communication services, conveyances, etc. are the prime aftermaths of wellness tourism development in a region. There is crucial need to materialize these benefits which can be occurred through;

Policy Support and Infrastructure Development: Governments or local authorities may invest in eco-lodges, herb gardens, wellness parks.

Integration with Tourism Value Chains: Partnerships with travel agencies, wellness influencers, and digital platforms expand reach.

Education and Capacity Building: Training local people in hospitality, herb processing, and wellness therapies improves service quality, collaboration with colleges/universities.

Marketing and Branding: Establishing strong branding around local herbal wellness practices (e.g., "Kashmir Hakims (Healers)" "Ayurvedic Kerala" or "Balinese Healing") attracts niche global tourists.

Inclusively the indigenous herbal wellness travel trade could be sustained overtime with practicing;

Economic Sustainability: Seasonal events or wellness festivals to maintain tourist inflow year round.

Environmental Sustainability: Encourage **community-based resource management** of herbal plants.

Social and Cultural Sustainability: Continuous **intergenerational transfer** of herbal knowledge.

Resilience to Market Changes: Adaptive business models like online sales of herbal products, virtual wellness retreats.

Herbal wellness tourism when developed thoughtfully can become a **resilient, inclusive, and sustainable economic engine**. Since the process might relatively reverberate the whole gamut of industry where not only a confined segment would be influenced; rather the entire ecosystem is expected to experience a phenomenal improvisation. Probably this may have positive impact on rural domain and result boon towards rural development of selected study area.

Table 10. Tourist Arrivals/Growth of Tourism for the period 2015-2023

Kashmir Division				Jammu Division			Total Arrivals to J&K
Year	Domestic	Foreign	Total	Domestic	Foreign	Total	Total
2015	898401	28954	927355	12358200	27199	12385399	13312754
2016	1274964	24516	1267474	12255831	29469	12285300	12661174
2017	1196941	31697	1228638	13316544	1556	13318100	14546738
2018	1142865	29143	1172008	106559	31143	137702	16898025
2019	531753	33779	565532	15631577	24141	15655718	16221250
2020	37368	3899	41267	3433466	1420	3434886	3476153
2021	6,64,163	1614	6,65,777	1,06,50,721	36	1,06,50,757	11316484
2022	26,53,495	19,947	26,73,442	1,62,10,837	38	1,62,10,875	18884317
2023	26,72,819	37,678	27,10,497	1,80,06,517	17659	1,80,24,176	21180011

Source: Directorate of Jammu & Kashmir Tourism (Official Records)

In pretext of cumbersome socio-political disturbance in Jammu & Kashmir since 1989 up to 2011 tourism sector has gone through difficult circumstances and accrues minimal tourism business hence showcase poor media coverage towards industry. Subsequently, on eve of normalcy and recovering situation in vale media reports positively reflected the image of Kashmir destination in the eye of prospective visitors. The increasing trend of statistical figures associated to foreign market during 2010-13 in comparison to previous and post corresponding period. Kashmir province accounts 25984 foreign arrivals during 2010 and tremendously rocketed footfall in the region by 2015 to 28954 but suddenly exhibits the downward trend in 2016 with mere 24516 arrivals however the subsequent period exhibits an upward surge in number. Similarly the congruent scenario has been espied in Ladakh region even estimated 22115 foreign arrivals during 2010 the statistical figures hyped by 2015, unfortunately trails took the downward trend in 2016 which accounts 38005 foreign tourist. The trends has been analyzed deeply correlated with the scenario of Kashmir belt, the political oscillations seemed to be directly influencing the arrivals to Jammu & Kashmir. Instead the surprising shifts were noticed since 2014 onwards in connection to both domestic cum foreign footfalls. In this correspondence the aggregate arrival during 2014 numbers 11537119 and depicted a gradual increase by 2017 then abruptly swelled to 1172008 in 2018 respectively. Therefore such aspects induced present authors to put under consideration and evaluate the period 2014-18 reasonably for the research purpose.

Regression Analysis: Year versus Arrivals to J&K

The regression equation is
Year = 2017 + 0.000000 Arrivals to J&K

Model Summary

S	R-sq	R-sq(adj)
2.81838	7.33%	0.00%

Source: Executed by Author

Table 11. Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	4.3972	4.39719	0.55	0.481
Error	7	55.6028	7.94326		
Total	8	60.0000			

Source: Compiled by Author

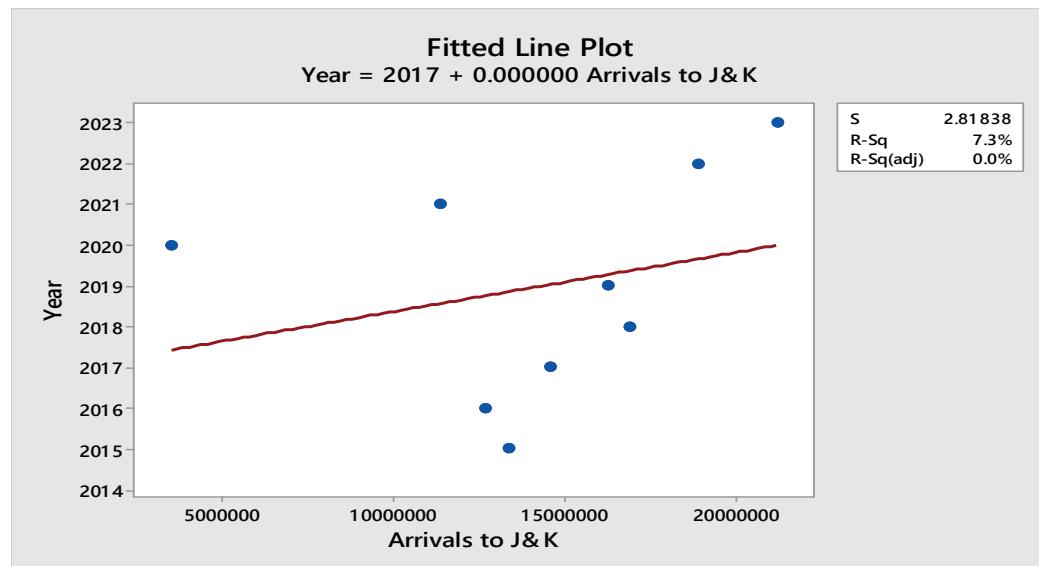


Figure 6. Fitted Line: Arrivals to Jammu & Kashmir versus Time Period
Source: Executed by Author

Further, to examine prevailing market trends and prospective growth of arrival in favor of Kashmir vale the regression model has been put in execution to valuate data for very purpose. The regression analysis assisted to sketch a '*fitted line plot*'; firstly, that reflected average distance (Standard error) of the observed values that fall from the regression line at the rate of $S=2.81$. The $R-Sq=7.3\%$ which demonstrates relative measure of percentage towards dependent variable variance (i.e., the selected years over tourists arrivals), since the proportion of the variation in dependent variable has positive significance. The $SS=4.39$ (*sum of squares*) while as $MS=4.37$ (*Mean square*) here the calculation evaluates that data is significantly dispersed as the dispersion points exhibits least clustered (*ref.tab.11*). In this association fitted line plot re-sorted at year 2017 on Y-axis with estimated value +0.000 arrivals to J&K surging an upward shift (*ref. fig.6*). Hence it can be assumed that the potential market growth to union territory would be around 14546738 in approximation in eventual course of time that is positive sign towards herbal wellness travel segment.

Discussions and Recommendations

It has been analyzed during the entire phase of study that indigenous herbal wellness is a novel perspective towards improvisation of tourism industry in Kashmir province. If the untapped traditional herbal potential of the area is exploited favorably it would reproduce new approach for the growth and development of wellness tourism as such. Herbal medicinal plants being a diversified attraction catch the attention of huge market towards the destination from different feeder areas anticipates formidable receipts to the vale. Subsequently, it has been observed that, like other attractions of territory i.e.; *Bangus*, *Bot-Pathri*, *Kalroos Caves*, *Vijeshawara temple*, *Tose-Maidan*, etc. the indigenous wellness aspect has significant scope to catalyze tourists towards valley provided the traditional pursuits where encouraged. Nevertheless, this may be a prolific approach to engender a sustainable tourism phenomenon by stimulating herbal travel in particular as well as conserve the diversity of ethno-medicinal species from the peril of extinction. Hassan, (2013), herbal medicines are becoming popular worldwide due to its growing recognition of natural products being low-cost and without any side effects. Demand for ethno medicines has been increased significantly in both developed and developing economies.

There has been found total number of 23 herbaceous plants which comprise 12 herbs, 4 plants, 2 shrubs, 4 trees, 1 fungus, in the assessment zone. The indigenous herbal extracts can be harnessed to produce assortment of allopathic medicines to cure different health disorders. Mir, (2017), since the traditional medicine use is widespread across the world as an alternative system of medicine and this is an evidence that plants still play role as source of different novel active biological compounds with various pharmacological activities such as antibacterial, anti- inflammatory, cardio protection, anti- fungal, anti- viral, anti-bacterial, anticancer etc. The health and wellness efficacy of these exotic herbs is particularly administered by proficient '*Hakims*' and '*Vaids*' of vale. In fact, these professionals are ascertained about medicinal properties, possess expertise to administer and improvise herbs for various healthcare treatments, in the form of extracts, resins, soups, syrups, latex and decoctions. In addition local inhabitants put into practice these herbs for different gastronomic delicacies, in contrary to innumerable socio-cultural and conventional folk usages.

The initiative would benefit the entire gamut of social structure and anticipated to contribute the local economy. The multi-variant avenues for employment generation, income addition, reduction in seasonality and cyclical, rural community development might be experience at

large scale subjected to dynamic exposure of herbal wellness travel. Shakeel, (2017), People in different communities have been using their native flora for their survival. Since the earliest of civilizations, man has used plants for healing which is a tradition that even survived the arrival of modern medicine and found newer strength at the end of 20th century. Hassan and Ahmad, (2013), According to a WHO estimate, nearly 80% of the population in the developing countries depends directly on plants for its medicine. Although it has been examined from the data available by employing descriptive statistics that wellness market in India is reflecting a significant progress during the time spell of 2015 and 2020. Five variables were put to assess the behavior of wellness travel in country, it is assumed that this would influence herbal tourism of Jammu and Kashmir as well. Through execution of One-Way ANOVA the pooled interval plot exhibits tremendous movement along given variables in the stipulated time period. Further, to examine prevailing market trends and prospective growth of arrival in favor of Kashmir vale the regression model has been put in execution to evaluate data for very purpose. The regression analysis assisted to sketch a '*fitted line plot*'; firstly, that reflected average distance (Standard error) of the observed values that fall from the regression line at the rate of $S=2.81$. Hence it can be assumed that the potential market growth to union territory would be progressive in future course of time that is positive sign towards herbal wellness travel segment. Sukumar, (2023), very niche is expected to be the substantial economic driver of the sector, is one of the fastest-growing divisions of the tourism business. Kashmir horizon is one of the familiar tourist destinations known for its rich biodiversity and valuable historic landscape. Sukumar and Balgopal (2023), Destinations for tourism are created to highlight their unique selling propositions by offering a variety of services blend of leisure, pleasure, and relaxation with herbal wellness and healthcare. This calls for a comprehensive service package that includes mental activity and education along with rejuvenation, fitness centres/physical exercise, beauty care, nutrition care and alternate therapy. Concluding that development of indigenous herbal wellness is a novel approach for tourism industry not exclusive to Kashmir province rather country as whole. In this connection some of the pertinent recommendations forwarded towards the expansion of wellness travel in vale can be extended as;

- Formulation of local and national health tourism competitiveness roadmaps and mainstreaming health tourism into national development plans will address many issues concerning this niche sector of tourism. Brand development of Kashmir herbal tourism to create a unique image of very concept will help in its development.
- Establishment of herbal manufacturing units and processing and value addition units in all peripheries of Kashmir will further boost this sector. Establishing marketing and processing units of medicinal plants will encourage cultivation of medicinal plants thereby generating employment in Kashmir hence induce further impetus to this sector.
- The government needs to frame some policy for development of herbal tourism so as to encourage investment in this sector in the form of building infrastructure for development of tourism.
- The concept of indigenous herbal wellness travel needs to be encouraged to clinch another feather in the crest of tourism business. Parallel to anthropogenic, symbiotic visitor attractions the herbal heritage phenomena can be brought into the attention of prospective market.
- The stakeholders of tourism sector need to come forward to tap the potential of the regional indigenous herbal essence. Consequently shall take decisive role towards building and promoting the image of the persuasive product; keeping up to highlight traditional herbal wellness treatments, providing informative online and offline materials i.e. televi-

sion channels, internet, Radio, newspapers, articles, magazines etc. and render them available to the customer.

- The Medicinal Plants growing in the forests of Jammu & Kashmir are mostly in the form of Herbs and Shrubs, both annual and perennial. Natural regeneration is obstructed by many reasons which include biotic interference, poor seed set, poor seed viability and harsh climatic conditions. Different measures for augmentation with artificial regeneration are necessary to multiply these species in different suitable areas by vegetative and other means, besides taking other measures for their conservation.
- Local awareness-raising campaigns to sensitize stakeholders to the potential growth prospects in the herbal tourism sector, making community conscious of the importance of economic contributions and developments which Herbal tourism can do, capacity development of local producers and service providers so that they know how to deal with very niche tourism sector. The community awareness programs could be conducted through gram Sabha meetings, Panchayat Samiti programs, and other capacity building programs via zonal agricultural authorities. Further educational institutions can be reaped in to create community awareness and in building the skills of the service providers.
- Finally, the private-public stakeholders ought to pay an immediate attention on the fragile indigenous herbal species rather let to vanish. Especially Kashmir tourism administration shall bring traditional medicinal plants in profile of industry to reconstruct folk herbal wellness concept as a novel travel phenomenon.

Conclusions

Herbal wellness concept is a novel and emerging travel business phenomena which is gradually surging to heights in different corners of country. According to secondary data in hand so the statistical descriptions exhibits that southern states especially Kerala is growing at geometric progression in wellness market segment. The statistical figures reflex that significant market share accrues in state basket from herbal healthcare business. Connected to the testament, Jammu & Kashmir a region in the northern Himalayan landscape acclaimed favorable habitat to vast indigenous herbal diversity. This unique proposition inherits a tremendous potential to tap the opportunities for the development of herbal tourism sector. In assessment precinct, people have been exploiting herbal medicinal products to cure the internal and external health ailments since times immemorial. Now a day in the diversified competitive market behavior the destination management zones are engaged in providing value oriented experience to catalyze tourists. In this association the traditional herbal magnitude of vale believed to be incredible platform to pull the potential market. There is no doubt that the Kashmir is rich in Indigenous knowledge and folklores regarding medicinal herbs in Unani, Ayurveda and Amchi systems of medicine. Having more than 300 medical species found in Kashmir, potential of high altitude medicinal plants of high commercial value, earthly paradise endowed with incredible diversity of medicinal plants and many other advantages as well. Developing herbal tourism will cut down seasonality of Kashmir tourism and beget rural development, socio economic progress of rural areas and socio cultural advancement.

The present study demonstrates that herbal wellness tourism experience can positively influence customer engagement. Industry practitioners can leverage this insight to develop and expand destination offerings in this direction. For instance, supporting infrastructure and facilities should be strategically planned, and relevant policies should be implemented to foster

growth. Additionally, the study reveals that there are diverse components of indigenous wellness tourism experiences such as fitness centres, nutritional care, and alternative therapies which have a significant impact on inspiring travelers and catalyzing the development of potential niche travel market. The study helped to recognize indigenous herbal medicine heritage of a geographical horizon in purview to growth of herbal wellness tourism and brought it in the attention of contemporary world. Notwithstanding the documentation of this investigation has been anticipated valuable for the communities and their future progeny to come. It demands that pertinent attention shall be realized to conserve the precious indigenous plants sustainably and ethnic herbal wellness skills to pass future generation.

Kashmir being world famous Tourist destination has the potential to develop a network of Herbal Tourist Villages where the tourists apart from enjoying the natural scenic beauty can be soothed by traditional therapies (Panchkarma & Regimental therapies) of Ayurveda, Yoga, Unani, Sidha and Homeopathy (AYUSH) thereby boosting Herbal Tourism. The state government shall declare a well-defined geographical area "having potential and being conducive for promotion of herbal tourism" as AYUSH Village; provide infrastructure, support services, higher incentives to attract investment for establishment of multi units of herbal Healthcare Sector. Herbal tourism sector cannot be taken only in the public sector however private sector needs to be roped in for establishing specialized herbal wellness centres providing facilities like Panchkarma, Spa, Aroma Therapies, etc, to the tourists on package basis. In order to facilitate the private investors in union territory of Jammu & Kashmir the government authorities needs to create suitable land bank at famous tourist places earmarked for such specialized centres. Designing of institutional framework for the development and promotion of health tourism also needs to take care off. Private investors (growers/traders/entrepreneurs /marketing agencies/ industrialists) need to be encouraged for cultivation, processing, marketing and value addition of local high demand indigenous medicinal plants.

Implications

Although the scope of herbal wellness tourism is broad, it has remained largely underexplored. Kashmir, with its rich biodiversity and legacy of Unani medicine, holds immense potential to emerge as a global hub for herbal wellness tourism---rivaling even Kerala's well-established Ayurvedic tourism---if developed sustainably. This sector can empower rural communities through tourism-driven micro-enterprises and agritourism initiatives, while also aligning with India's AYUSH mission. Reviving traditional knowledge by promoting Unani practices and local herbal healing traditions, as practiced by *hakims* (traditional healers), can foster meaningful interactions between tourists and locals, thereby enhancing cultural appreciation and understanding. Additionally, the growing value of indigenous herbs may incentivize local communities to conserve rare medicinal plants, offering both ecological and economic benefits.

Future Research

Relatively a new phenomenon, it requires further research to establish a strong scientific foundation. Contemporary studies in this field are fragmented, lack continuity and comprehensiveness, and therefore cannot be considered systematic. Consequently, this study suggests that future research should begin by clearly defining herbal wellness tourism and developing relia-

ble and valid measurement scales. Only then should efforts focus on the explanatory aspects of herbal wellness tourism to achieve research objectives and address existing challenges.

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