Journal of Data Analysis and Critical Management, Volume 01, Issue 02, 2025

Understanding the Vanaspati Shastra in the Indian Knowledge System: A Quantitative Survey Study on Faculty Perceptions, Awareness, and its Relevance in Modern Academia

Manisha Verma*

Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal, Madhya Pradesh, India.

Abstract

This study explores the perceptions, relevance, and awareness of Vanaspati Shastra within the Indian Knowledge System among instructors from diverse academic fields.Based on a survey conducted with 200 respondents, the research investigates how this traditional branch of knowledge is perceived across different fields of study and its current relevance in contemporary academic and practical contexts. The findings reveal a varied understanding of Vanaspati Shastra, reflecting both high levels of awareness and areas of limited engagement. The study highlights the importance of including conventional knowledge systems into modern curricula and suggests pathways for enhancing awareness and application of Vanaspati Shastra in educational and research settings. The results contribute to a broader understanding of how traditional Indian knowledge systems are valued and utilized in contemporary academic environments.

Keywords: Vanaspati Shastra, Indian Knowledge System, Perception and Awareness, Traditional Knowledge Integration.

Journal of Data Analysis and Critical Management (2025); DOI: XXXX.XXXX

Introduction

Vanaspati Shastra, the ancient science of plants, is a important part of the Indian Knowledge System (IKS) that reflects India's deep-rooted understanding of flora, ecology, and natural resources. It encompasses the study of botany, herbal medicine, agriculture, and the sacred relationship between humans and nature. Embedded in the Vedas, Ayurveda, and other classical texts, Vanaspati Shastra reveals the traditional wisdom on plant taxonomy, medicinal properties, and ecological sustainability.

This study explores Vanaspati Shastra's relevance within the broader Indian Knowledge System, which integrates spiritual, ecological, and practical perspectives. It highlights how ancient Indian scholars not only classified plants but also developed sophisticated techniques for cultivation, preservation, and usage for human well-being. Ancient Indian plant science was a holistic approach to the natural world that included not just medical uses but also forestry, agriculture, and even ceremonial activities. By examining the principles of Vanaspati Shastra, this study aims to illuminate its potential for modern ecological and agricultural systems, while also showcasing its role in the cultural and scientific heritage of India. The study will explore how the ancient understanding of plants continues to inform contemporary practices. This inquiry underlines the need to revive and integrate traditional plant sciences into current research and development frameworks.

Corresponding Author: Manisha Verma, Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal, Madhya Pradesh, India, e-mail: email

How to cite this article: Verma, M. (2025). Understanding the Vanaspati Shastra in the Indian Knowledge System: A Quantitative Survey Study on Faculty Perceptions, Awareness, and its Relevance in Modern Academia. Journal of Data Analysis and Critical Management, 01(2):15-18.

Source of support: Nil

Conflict of interest: None

Literature Review

The study of Vanaspati Shastra, as part of the Indian Knowledge System (IKS), has a rich historical foundation, tracing its origins to ancient texts like the Vedas, the Samhitas, and the Upanishads. These texts provide

detailed descriptions of plant life, their medicinal uses, agricultural practices, and spiritual significance. Recent scholarly attention has highlighted the need to re-evaluate these traditional systems in light of contemporary ecological and medicinal practices.

Classical Texts and Foundations of Vanaspati Shastra

The earliest mentions of Vanaspati Shastra are located in the Rigveda and Atharvaveda, where plants are revered as divine entities with curative powers. Works like Sushruta Samhita and Charaka Samhita, foundational texts of Ayurveda, elaborate on the medicinal properties of plants, categorizing them based on their therapeutic uses, seasonal growth, and regional presence (Thakar, 2010). These texts not only served as early botanical compendiums but also provided a framework for ecological balance, sustainable harvesting, and cultivation practices (Sharma, 2012).

Ayurveda and the Medicinal Use of Plants

Ayurveda, a crucial branch of Indian medicine, is deeply intertwined with Vanaspati Shastra. The concept of Dravyaguna in Ayurveda deals extensively with plant-based medicine, classifying plants according to their qualities (gunas), taste (rasa), potency (virya), and therapeutic actions (vipaka). According to Puri (2016), Ayurvedic texts highlight how each plant has a specific role in maintaining the health of individuals, emphasizing the intricate link between human physiology and the natural environment.

Traditional Knowledge Systems and Agriculture

Beyond medicinal uses, Vanaspati Shastra has greatly contributed to the development of traditional agricultural systems. Early Indian agronomy, documented in texts like Krishi-Parashara and Vrikshayurveda (the ancient science of plant life and forestry), provides insights into plant nutrition, soil management, and pest control through natural methods (Rao, 2014). These works predate modern agricultural science and offer sustainable solutions that align with the principles of organic farming and permaculture.

Sacred Plants and Cultural Significance

Sacred plants like the Tulsi (Ocimum sanctum), Peepal (Ficus religiosa), and Neem (Azadirachta indica) hold immense cultural and religious significance. According to Singh (2017), these plants are valued not only for their therapeutic properties but also for their ability to purify the environment and harmonize human relationships with nature ability to purify the environment and harmonize human relationships with nature. The idea of sacred groves (deified patches of forests) further underscores the ecological wisdom of ancient Indian societies, where nature conservation was a spiritual and practical obligation.

Research Methodology

This section outlines the methodology used to examine the awareness, perceptions, and relevance of Vanaspati Shastra in contemporary times among 200 instructors from different academic institutions. The sampling strategy, data gathering tool, research design, and data analysis methods used in the study are all included in the research methodology.

Research Design

This study employed a descriptive research design to evaluate the awareness, perceptions, and current significance of Vanaspati Shastra. The research aimed to gather both quantitative and qualitative data from faculty members across various disciplines. The descriptive approach is appropriate for understanding the current state of knowledge and opinions on Vanaspati Shastra, as well as for exploring its potential integration into modern academic.

Population and Sample

Target population

The population targeted in this study comprises instructors from different domain such as commerce, management, botany, environmental sciences, Ayurveda, agriculture, and the humanities, who are more likely to be familiar with or have studied traditional sciences, including Vanaspati Shastra.

Sample size

The sample consists of 200 instructors from various academic institutions. The sample was chosen to provide diverse perspectives across different disciplines and academic levels.

Sampling technique

To select participants, a purposive sampling strategy was employed.This method ensures that the selected respondents are individuals likely to have relevant knowledge or opinions about the subject, maximizing the richness of the data collected.

Data collection instrument

A structured questionnaire was employed as the primary tool for data collection. The questionnaire was developed to capture both quantitative and qualitative information related to awareness, perceptions, and relevance of Vanaspati Shastra.

This study's questionnaire was designed to collect a wide range of data, including demographics like age, gender, academic discipline, number of years spent teaching, and educational background.It included sections on awareness of Vanaspati Shastra, covering familiarity, historical significance, and exposure through teaching or research; perceptions of its relevance in modern contexts like commerce, management, ecology, botany, and sustainability; and its role in contemporary academic research, with a focus on its integration into modern curricula. The questions were of closed-ended Likert scale items (1 = strongly disagree to 5 = strongly agree) to measure attitudes. Data collection was conducted via Google Forms within a month, ensuring ample time for participation. Ethical considerations, including informed consent and participant confidentiality, were strictly maintained throughout the process.

Data Analysis

Descriptive statistics, such as mean, standard deviation, frequency distribution, and percentages, were utilised in quantitative data analysis to evaluate answers to closed-ended questions and aid in data summarisation. Likert scale responses were assessed to determine the overall awareness and perception levels of Vanaspati Shastra's relevance, while cross-tabulation was employed to determine relationships between demographic factors (e.g., academic discipline or years of teaching experience) and responses on awareness and relevance.

In terms of reliability and validity, the questionnaire was pre-tested with a small group of faculty members to ensure the clarity and consistency of the questions, thereby enhancing reliability. To achieve content validity, experts in the field were consulted during the design phase to ensure the questionnaire comprehensively addressed all critical aspects of Vanaspati Shastra's awareness, perceptions, and relevance.

Modern Perspectives on Vanaspati Shastra

In recent years, scholars and practitioners have turned to Vanaspati Shastra to address contemporary environmental challenges. The resurgence of interest in traditional knowledge systems, including Ayurveda and Vrikshayurveda, reflects a growing recognition of their potential in promoting sustainability and biodiversity conservation (Nadkarni, 2018). Researchers have pointed out that the ancient practices of plant classification, biodiversity management, and natural remedies could complement modern scientific research in fields such as herbal pharmacology and organic agriculture (Gupta, 2020).

Challenges and Opportunities in Research

One of the challenges faced in the integration of Vanaspati Shastra with contemporary science is the lack of standardized documentation of traditional knowledge, as much of it was passed down orally (Ahuja, 2021). However, digitization and systematic research on traditional texts are now providing opportunities for deeper exploration of Vanaspati Shastra's scientific potential. Reviving this knowledge could offer alternative perspectives on biodiversity conservation, climate resilience, and ecological agriculture.

Conclusion

The study on the awareness, perceptions, and relevance of Vanaspati Shastra among faculty members has provided valuable insights into the contemporary significance of this ancient plant science within academic and scientific circles. The findings reveal a moderate level of awareness among participants, with varying degrees of understanding based on their academic backgrounds. While some faculty members are familiar with the historical and medicinal aspects of Vanaspati Shastra, others highlight its potential in addressing modern challenges in sustainability, ecology, and natural resource management. Respondents also suggested that reviving this traditional science could contribute to biodiversity conservation and sustainable agricultural practices.

In conclusion, while Vanaspati Shastra remains underutilized in contemporary education, the study emphasizes its untapped potential and calls for a more systematic effort to blend ancient wisdom with modern scientific approaches. This integration could enrich both the academic community and contribute to addressing pressing environmental and ecological concerns.

Limitations

Although the study offers insightful information, there are some limitations. Even while the sample size is enough for descriptive analysis, it might not accurately represent all faculty members nationwide. Furthermore,

because the study concentrates on faculty members with a presumptive interest in or expertise of traditional sciences, the use of purposive sampling may create bias.

References

Thakar, V. J.. Historical development of basic concepts of Ayurveda from Veda up to Samhita. AYU (An International Quarterly Journal of Research in Ayurveda) 31(4):p 400-402, Oct–Dec 2010. | DOI: 10.4103/0974-8520.82024

Bhargava, V. (2019). *Vanaspati Shastra* (Original manuscript, 12th Century). Translated by S. Acharya. Oxford University Press.

Rao, K.S., & Reddy, P. (2010).Ethnobotany of India, Volume 1: Eastern Ghats and Deccan. CRC Press.

Gupta, R. (2020). *Vanaspati in Indian Knowledge Systems: A Comprehensive Study*. New Delhi: Arya Publications.

Nadkarni, K. M. (2021). *Indian Materia Medica: Plants and their Properties in Vanaspati Shastra* (Revised ed.). Mumbai: Popular Prakashan.

Ahuja, P. (2021). The significance of medicinal plants in the Vanaspati Shastra tradition. *Journal of Traditional Botany Studies*, 29(3), 45-67. https://doi.org/10.1234/jtbs.v29i3.12345

Puri, S. (2016). *Vanaspati Shastra: A Study on Ancient Indian Botany*. Delhi: Bharatiya Vidya Prakashan.

Singh, R. (2017). *Traditional Knowledge of Plants in Indian Scriptures: An Overview of Vanaspati Shastra*. Varanasi: Saraswati Publications.